



Strata® CIX™
Programming Manual
Volume 1
(Software Release 5.2
for Network eManager®)

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Strata CIX40, CIX100, CIX200, CIX670 and CIX1200 General End User Information

The Strata CIX 40, CIX100, CIX200, CIX670 or CIX1200 Digital Business Telephone System is registered in accordance with the provisions of Part 68 of the Federal Communications Commission's Rules and Regulations.

FCC Requirements

Means of Connection: The Federal Communications Commission (FCC) has established rules which permit the Strata CIX system to be connected directly to the telephone network. Connection points are provided by the telephone company—connections for this type of customer-provided equipment will not be provided on coin lines. Connections to party lines are subject to state tariffs.

Incidence of Harm: If the system is malfunctioning, it may also be disrupting the telephone network. The system should be disconnected until the problem can be determined and repaired. If this is not done, the telephone company may temporarily disconnect service. If possible, they will notify you in advance, but, if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Service or Repair: For service or repair, contact your local Toshiba telecommunications distributor. To obtain the nearest Toshiba telecommunications distributor in your area, log onto www.toshiba.com/taistsd/pages/support_dealerlocator.html or call (800) 222-5805 and ask for a Toshiba Telecom Dealer.

Telephone Network Compatibility: The telephone company may make changes in its facilities, equipment, operations, and procedures. If such changes affect the compatibility or use of the Strata CIX40, CIX100, CIX200, CIX670 or CIX1200 system, the telephone company will notify you in advance to give you an opportunity to maintain uninterrupted service.

Notification of Telephone Company: Before connecting a Strata CIX system to the telephone network, the telephone company may request the following:

1. Your telephone number.
2. FCC and ACTA registration
 - Strata CIX 40, CIX100, CIX200, CIX670 or CIX1200 may be configured as a Key, Hybrid or PBX telephone system. The appropriate configuration for your system is dependent upon your operation of the system.
 - If the operation of your system is only manual selection of outgoing lines, it may be registered as a Key telephone system.
 - If your operation requires automatic selection of outgoing lines, such as dial access, Least Cost Routing, Pooled Line Buttons, etc., the system must be registered as a Hybrid telephone system. In addition to the above, certain features (tie Lines, Off-premises Stations, etc.) may also require Hybrid telephone system registration in some areas.
 - If you are unsure of your type of operation and/or the appropriate FCC registration number, contact your local Toshiba telecommunications distributor for assistance.

FCC Registration Numbers			
SYSTEM	PBX Fully-protected PBXs	Hybrid Fully-protected multifunction systems	KEY Fully-protected telephone key systems
CIX40	CJ6PF03BDTCHS402	CJ6MF03BDTCHS40	CJ6KD03BDTCHS40
CIX100	CJ6MUL-35931-PF-E	CJ6MUL-35930-MF-E	CJ6MUL-35929-KF-E
CIX200	CJ6PF03BDTCHS192	CJ6MF03BDTCHS192	CJ6KD03BDTCHS192
CIX670	CJ6MUL-35931-PF-E	CJ6MUL-35930-MF-E	CJ6MUL-35929-KF-E
CIX1200	CJ6MUL-35931-PF-E	CJ6MUL-35930-MF-E	CJ6MUL-35929-KF-E

- Ringer equivalence number: 0.3B. The ringer equivalence number (REN) is useful to determine the quantity of devices which you may connect to your telephone line and still have all of those devices ring when your number is called. In most areas, but not all, the sum of the RENs of all devices connected to one line should not exceed five (5.0B). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to ascertain the maximum REN for your calling area.

3. Network connection information USOC jack required: RJ11/14C, RJ21/2E/2F/2G/2HX/RJ49C (see Network Requirements in this document). Items 2, 3 and 4 are also indicated on the equipment label.

4. Authorized Network Parts: 02LS2/GS2, 02RV2-T/O, OL13C/B, T11/12/31/32M, 04DU9-BN/DN/1SN, 02IS5, 04DU9-BN/DN/1SN1ZN

Radio Frequency Interference

Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the manufacturer's instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case, the user, at his/her own expense, will be required to take whatever measures may be required to correct the interference.

Underwriters Laboratory

This system is listed with Underwriters Laboratory (UL). Secondary protection is required on any wiring from any telephone that exits the building or is subject to lightning or other electrical surges, and on DID, OPS, and Tie lines. (Additional information is provided in this manual.)



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CP01, Issue 8, Part I Section 14.1

Notice: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the Equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION! Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

CP01, Issue 8, Part I Section 14.2

Ringer Equivalence Notice: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The terminal on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the Devices does not exceed 5.

Hearing Aid Compatibility Notice: The FCC has established rules that require all installed business telephones be hearing aid compatible. This rule applies to all telephones regardless of the date of manufacture or installation. There are severe financial penalties which may be levied on the end-user for non-compliance.

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Toshiba America Information Systems, Inc.
Telecommunication Systems Division
9740 Irvine Boulevard
Irvine, California 92618-1697
United States of America

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Under no circumstances will the retail customer or any user or dealer or other person be entitled to any direct, special, indirect, consequential, or exemplary damages, for breach of contract, tort, or otherwise. Under no circumstances will any such person be entitled to any sum greater than the purchase price paid for the item of equipment that is malfunctioning.

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Introduction

This manual provides information required to program the Strata® CIX™ business telephone systems using Toshiba's Network eManager programming interface and the 900 series Button Programming.

Important! Whenever the CIX100 is mentioned in this book, it applies to both the CIX100-S and CIX100, unless specified otherwise. Whenever the CIX is mentioned in this book, it applies to all CIX40, CIX100, CIX100-S, CIX200, CIX670 and CIX1200 systems, unless specified otherwise.

Important! Do not downgrade to previous versions of CIX software. Downward compatibility of CIX database is not supported. Toshiba recommends keeping the current database for emergency situations. We guarantee upward compatibility of the database so you can upgrade the system without any problems.

Release 4 and above Processors

The chart below shows the processor PCB required to support the Release 4 and later software packages.

System:	Processor PCB Required to Support Release 4.x
CIX40.....	GCTU2A
CIX100.....	ACTU3A
CIX200.....	LCTU1A, LCTU2A
CIX670 Basic.....	BCTU2A
CIX670 Expanded.....	BCTU2A with BEXU2A
CIX1200 Basic.....	HCTU1
CIX1200 Expanded A.....	HCTU1 with HEXAU1
CIX1200 Expanded B.....	HCTU1 with HEXBU1

Note The features described in this document assume that the Strata CIX system has the current software release installed. At the time of printing, Strata CIX R5.20 and Network eManager V5.20 are the most current versions.

Organization

Chapter 1 - Strata CIX Programming Guidelines describes auto-recognition features, order of programming, and overview of general CIX Programming operation.

Chapter 2 – Network eManager provides general information about the Strata Network eManager software capabilities. Includes the installation steps needed to install Strata Network eManager on a PC and establish a connection to the Strata CIX system.

Chapter 3 – Licenses Strata CIX license descriptions and procedures

Chapter 4 – System provides system programming information

Chapter 5 – Station discusses station and station feature programming.

Chapter 6 – Trunks explains trunk programming information including T1, ISDN Basic Rate Interface (BRI) and Primary Rate Interface (PRI).

Chapter 7 – Attendant describes Attendant Console support and settings available in eManager.

Chapter 8 – IP Telephony Programming describes the programs required to program IP Telephony features.

Chapter 9 – Services discusses programming of services available to Strata CIX through eManager.

Chapter 10 – Operation explains system setup options available to eManager users. System initialization, SmartMedia formatting, system software upgrades and Internet Protocol (IP) configuration are among the topics discussed.

Chapter 11 – Maintenance provides system and component trace program information. eManager Configuration and Flash Memory Testing are also described.

Chapter 12 – Tools and Profile discusses Strata CIX Tools and Utilities to help manage your Strata CIX System more efficiently.

Chapter 13 – Telephone Button Programming discusses the 900 series button programming interface provided with Strata CIX.

Chapter 14 – Data Backup, Restore and Update provides Strata CIX maintenance procedures that can be activated from the programming telephone.

Appendix A – Applications Guide for setup and program specific applications such as Voice Mail, IP Telephony, StrataNet and others

Appendix B – Software and Firmware Updates contains IP Telephone and BIPU Firmware update procedures.

Conventions

Conventions	Description
Note	Elaborates specific items or references other information. Within some tables, general notes apply to the entire table and numbered notes apply to specific items.
Important!	Calls attention to important instructions or information.
CAUTION!	Advises you that hardware, software applications, or data could be damaged if the instructions are not followed closely.
WARNING!	Alerts you when the given task could cause personal injury or death.
[DN]	Represents any Directory Number button, also known as an extension or intercom number.
[PDN]	Represents any Primary Directory Number button (the extension number for the telephone).
[SDN]	Represents any Secondary appearance of a PDN. A PDN which appears on another telephone is considered an SDN.
[PhDN]	Represents any Phantom Directory Number button (an additional DN).
Plus (+)	Shows a multiple PC keyboard or phone button entry. Entries without spaces between them show a simultaneous entry. Example: Esc+Enter. Entries with spaces between them show a sequential entry. Example: # + 5.
Tilde (~)	Means "through." Example: 350~640 Hz frequency range.
Start > Settings > Printers	Denotes a progression of buttons and/or menu options on the screen you should select.
See Figure 10	Grey or blue words within the printed text denote cross-references. In the electronic version of this document, cross-references appear in blue hypertext.

Related Documents/Media

Note Some documents listed here may appear in different versions on the CD-ROM or in print. To find the most current version, check the version/date in the Publication Information on the back of the document's title page.

Installation and Programming

- Strata CIX & MAS Installation and Maintenance Manual
- Strata CIX Programming Manual Volume 1
- Strata CIX Programming Manual Volume 2 – (Stratagy ES Voice Mail Application)
- Strata CIX Programming Manual Volume 3 – (Application Implementation)
- Strata CIX SIP Trunk Configuration Manual
- Telephone Button Programming Manual

User Guides

- Strata CIX IP5000-Series Telephone
- Strata CIX DKT/IPT Telephone
- Strata DP5000-Series Telephone
- My Phone Manager™ User Guide
- Strata CTX DKT3001/2001 Digital Single Line Telephone
- Strata CTX Standard Telephone
- Strata CTX DKT2204-CT/DKT2304-CT Cordless Telephones

Quick Reference Guide

- Strata CIX IP5000-Series Telephone
- Strata CIX DP5000-Series Telephone
- Strata CIX/CTX DKT/IPT Telephone

CD-ROMs

- Strata CIX Application Software and CIX Documentation Library - includes Network eManager™ software.
- Strata CIX Call Center Solutions Application Software and CIX Documentation

For authorized users, Internet site FYI (<http://fyi.tsd.toshiba.com>) contains all current Strata CIX documentation and enables you to view, print and download current publications.

This chapter discusses Strata CIX programming basics and guides you through initial setup procedures. It also describes auto-recognition features, order of programming, and overview of general CIX Network eManager, and Button Programming operations. Programming sequence tables are provided to streamline your programming tasks.

Use Default Auto-programming to Start Up

Important! All programs and instructions apply to all Strata CIX100, CIX1200 and CIX670 systems, unless specified otherwise.

The CIX40 has a default database already stored. Refer to the CIX40 Installation Manual (CIX-IM-CIX40) for details.

This feature reduces the programming time to install Strata CIX systems. The Strata CIX system will automatically program specific default data in a number of programs based on the PCBs that are installed in the system before processor initialization. The default data and procedure for auto-programming is provided in this section.

1. Install all line, station and optional PCBs that should be recognized for auto programming.
2. Power-on the system and initialize auto-programming for the system (Program 900, Level 1).
3. Verify "Station and BIOU Auto-programming" on [page 1-2](#).
4. Verify "Station PDN Auto-programming" on [page 1-3](#).
5. Verify "CO Line Auto-programming" on [page 1-3](#).
6. Verify "CIX Processor NIC Interface TCP/IP Auto-programming" on [page 1-9](#).

Note

- The type of PCB, its cabinet and slot position are automatically recognized upon system initialization; or, when powering the CIX processor for the first time.
- Each installed PCB circuit equipment number is set in numerical order based on the cabinet and slot position of the PCB.
- Station Primary Directory Numbers (PDN) and CO line numbers are set in numerical order according to their equipment cabinet/slot positions.
- Other default data, such as the Strata CIX LAN and modem interface IP address, station and line class of service, outgoing and incoming line groups, etc., are automatically set for the optional hardware originally installed.

Auto-programming Limitations

The following are the limitations of Strata CIX auto-programming.

- CTI programs are not programmed automatically.
- Strata CIX cannot configure unique LAN requirements automatically. Strata CIX's LAN system data, CIX IP address and Community Name are set to a default.

Note DND is only assigned on 20-button telephones.

- When the system is initialized, it takes a few minutes to recognize the mounted hardware.
- The Primary DN on the first button and DND on the last button are assigned telephone buttons; all other buttons are not assigned automatically.
- In the Strata CIX100, CIX670 or CIX1200 Slot 0101 must always have a BDKU, ADKU or PDKU. The BDKU is assigned if no PCB is installed.
- In the Strata CIX200 Slot 0101 must always have an MIPU, LIPU, BDKU or PDKU. An xIPU is assigned if no PCB is installed, however no stations are assigned. R5 software assigns an MIPU; R4 software assigns an LIPU.

Station and BIOU Auto-programming

Table 1-1 shows the Station and BIOU PCBs that will be recognized and set in Program 100 during auto-programming.

Note No special assignments are set for BIOU/LIPU/MIPU/GIPU during auto-programming.

Table 1-1 Auto-Programming for Station and BIOU PCB Recognition (Program 100)

PCB Code	PCB Name	PCB Circuit Type	Parameter Setting	Comments
000		No PCB or RRCU		None or Remote Cabinets
002	RSTU	8 standard telephone circuits		Standard telephone - no VM interface settings
003	PDKU2	8 digital telephone	PCM Highway: 8	DKT2000 or DKT3000/3200 without S-OCA (DKT3000 limitations: DKT2000, 16 character LCD display on DKT3000, DKT3000/3200 LCD Feature key does not function, DKT3014 large screen LCD does not display).
004	Not used	Not used		
017	BDKU	8 digital telephones	8, 1B circuits	DKT2000 or DKT3000/3200 without S-OCA
018	BDKU1+BDKS	16 digital telephones	16, 1B circuits	DKT2000 or DKT3000/3200 without S-OCA
019	BIOU	Page/MOH/Relay interface#1		No functions assigned
020	BIOU2	Page/MOH/Relay interface#2		No functions assigned. Strata CIX100 assigns a virtual BIOU2 into a virtual location, Cabinet 02, Slot 05, to provide control of the ACTU relay.

Station PDN Auto-programming

When auto programming recognizes installed station PCBs, it assigns PDNs in numerical order as follows:

- Auto programming assigns PDNs to station PCB equipment numbers (cabinet, slot, circuit) in equipment number order. All installed station PCB circuits will be assigned a PDN regardless of the circuit type, digital (BDKU/BDKS, PDKU) or analog (RSTU). MIPUs, GIPUs and LIPUs are not assigned PDNs.
- PDN 200 or PDN 2000 (depending on the system size) is assigned to the station circuit having the lowest equipment number in the system. The PDN is then incremented by one digit and assigned to the next highest station equipment number and so on. See Table 1-2.
- Program 205 Feature Button Setting – A Primary DN (PDN) is assigned to FB01 on each digital telephone according to its equipment number (cabinet, slot, circuit) position. DND is assigned to FB20 on 20-button telephones. DND is not assigned on 10- and 14-button telephones.

Table 1-2 Auto-Programming for Station Primary Directory Number

First digit	CIX Basic Processor	CIX670 Exp Processor/CIX1200
2	Primary DNs (3-digits) 200~299 depending on quantity of station PCBs installed	Primary DNs (4-digit) 2000~2571 depending on the quantity of station PCBs installed
3	Primary DN (3-digits) 300~399 depending on the quantity of station PCBs installed	

CO Line Auto-programming

Table 1-3 shows the CO line PCBs that will be recognized and set in Program 100 during auto-programming. The default data for CO line Incoming Line Groups (ILG), Outgoing Line Groups (OLG), and CO line service type is set as shown in Table 1-4.

Important! PCBs must be installed per the rules in the Strata CIX and MAS Installation and Maintenance Manual.

Table 1-3 Auto-Programming for CO line PCB Recognition (Program 100)

PCB Code	PCB Name	PCB Circuit Type	Parameter setting	Comments
000	-	No PCB or RRCU		None or Remote cabinets
001	RCOU, RGLU	4 analog Loop or Ground start lines		Direct Incoming Termination (DIT) lines
005	RCOU+RCOS	8 analog Loop start lines		Direct Incoming Termination (DIT) lines
006	RDDU	4 analog DID lines		Direct Inward Dial lines
007	RDTU2	16 or 24 digital T1 lines	PCM Highway: 16 or 24 ¹	T1 Direct Incoming Termination (DIT) lines

Table 1-3 Auto-Programming for CO line PCB Recognition (Program 100) (continued)

PCB Code	PCB Name	PCB Circuit Type	Parameter setting	Comments
008	RDSU	4 standard telephone and 4 digital Telephone		Standard Telephone, DKT2000 and DKT3000/3200 without S-OCA, DP5xxx (DKT3000 limitations: DKT2000, 16 character LCD display on DKT3000/3200, DKT3000/3200 LCD Feature key does not function, DKT3014/3214 large screen LCD does not display)
009	RCIU2+RCIS	4 or 8 Caller ID interface		Caller ID interface for RCOU/RCOS and RGLU analog CLID lines. Note: The same Prog 100 code (009) is used for RCIU2 with or without RCIS.
010	RMCU+RCMS	2 or 4 E911 analog CAMA lines		CAMA lines Note: The same Program 100 code (009) used for RCIU2 with or without RCIS.
011	REMU, BVPU	4 analog Tie lines, 4 VoIP circuits		Tie lines
012	RBSU	2 ISDN BRI (S/T) circuits	TEI Type: two TEIs	ISDN BRI CO lines
013	RBSU+RBSS	4 ISDN BRI (S/T) circuits	TEI Type: two TEIs	ISDN BRI CO lines
014	RPTU	16 or 24 ISDN PRI channels	PCM Highway: 16 or 24 ¹	ISDN BRI CO lines
015	RBUU	2 ISDN BRI (U) circuits	TEI Type: two TEIs	ISDN BRI CO lines
016	RBUU+RBUS	4 ISDN BRI (U) circuits	TEI Type: two TEIs	ISDN BRI CO lines

1. If the slot next to an installed RDTU or RPTU is vacant, 24 lines or channels will be installed; If the slot next to an installed RDTU or RPTU is occupied by another PCB, 16 lines or channels will be installed.

Table 1-4 Auto-Programming of Line Groups and Service Types

CO line type	OLG Prog 306	ILG Prog 304	CO Service Type
RCOU/RCOS and RGLU analog Loop and Ground start	1	1	Direct In Termination (DIT) to the first PDN (200 or 2000 – see Table 5)
RDDU analog DID	1	2	DID, wink – no default DID numbers
RDTU (T1)	1	3	DID – no default DID numbers
RMCU/RMCS analog CAMA	1	-	Direct In Termination (DIT) to the first PDN (200 or 2000 – see next table)
RBUU/RBUS and RBSU ISDN BRI - set as CO side	2	4	DID – no default DID numbers

Table 1-4 Auto-Programming of Line Groups and Service Types (continued)

CO line type	OLG Prog 306	ILG Prog 304	CO Service Type
ISDN PRI	2	5	DID – no default DID numbers
REMU analog E&M	3	6	Non-Strata Net
<p>1. The line number is assigned to all lines in the numerical order according to the line PCB cabinet placements. Example: Line number 1 will be on the first circuit of the line PCB placed in the lowest cabinet/slot number.</p> <p>2. OLG:1 is created even if there is are no analog line PCBs installed.</p>			

Table 1-5 Auto-Programming of Miscellaneous Line Parameters

Item	Settings
DIT line ringing assignment Program 310	All of the ringing destinations of DIT lines are the first PDN: PDN 200 for CIX100, CIX200 and Basic Proc CIX670 (1~2 cab), CIX1200 Basic PDN2000 for Expanded Processor CIX670. (3~7 cabinets), CIX1200 Expanded
DID numbers - not assigned Program 309	The destination of DID is not assigned. DID numbers and ringing destinations must be assigned manually from Strata eManager or the programming telephone.
Format setting for DIT (T1)	Zero Code Suppress = B8ZS, Frame Format = ESF
Setting for CAMA / E911	The destination of internal notification is the first DN 200 or 2000 in the all operation mode (Day1, Day2 and Night).
Setting for ISDN BRI CO	Common D channel is not assigned. One channel group is assigned to each BRI PCB installed. The channel group number is assigned to each BRI interface in the order in which the BRI PCBs are installed. The destination of DID is not assigned.
Setting for ISDN PRI CO	Common D channel is not assigned. One channel group is assigned to each PRI PCB installed. The channel group number is assigned to each PRI interface in the order in which the PRI PCBs are installed. The destination of DID is not assigned.
Setting for E&M Tie lines	The node number and the other setting for networking are not assigned automatically.

The destination of Program 318, No Calling Party Number (CPN) and Out Of Search [for] DID number, is assigned to the first Primary DN of the system (200 or 2000) in the all system operating modes (Day1, Day 2 and Night).

The DIT line (Ground and Loop) destinations of all trunks which generated automatically are set as the first PDN 200 or 2000 depending on the system size – see Table 1-4.

MIPU / GIPU / LIPU / BIPU Settings

Table 1-6 MIPU, GIPU, LIPU, BIPU-M Automatic Settings

Item	Description	Settings
Card Type	Card Type	BIPU-M, LIPU, MIPU, GIPU
IP address (xIPU)	IP address of xIPU	In the order of smallest number of the slot where xIPU is inserted 192.168.254.200 .201 .202/..... Private address will be set
Subnet mask (xIPU)	Subnet mask of xIPU substrate	255.255.255.0
Default gateway	Default gateway of xIPU substrate	0.0.0.0

Table 1-7 IP Terminal Automatic Settings

Item	Description	Settings
DN Setting	DN setting of the terminal accommodated in xIPU	Assigned in the order of the lowest slot number
Accommodated terminal setting (Station ID)	Parameter setting of station ID in xIPU	Station ID = PDN
Accommodated terminal setting (IP Address)	Parameter setting of IP address in xIPU	IP address = 0.0.0.0
Accommodated terminal setting (MAC addresses)	Parameter setting of MAC addresses in xIPU	MAC addresses = (no data)

Table 1-8 System Related Basic Settings

Item	Description	Settings
QoS control	Setting of priority control by Diffserv/IEEE802.1p	Use of Diffserv: Not applicable Set value of DSField = 0 Use of IEEE802.1p: Not applicable Priority level: Voice
Station ID	Automatic setting of Station ID	Not allowed
Terminal authentication setting	Application or non-application of connection restriction function using MAC address	Not apply

BIPU-Q1A Initial Programming

After initializing the CIX System with BIPU for Strata Net over IP, Strata CIX detects the BIPU card for Strata Net over IP and basic programming is set automatically.

Table 1-9 BIPU-Q1A Automatic Settings

Item	Description	Settings
Card Type	Card Type	BIPU-Q1A
IP address (BIPU)	IP address of BIPU-Q1A	In the order of smallest number of the slot where BIPU is inserted 192.168.254.800 for 1st BIPU .801 for 2nd BIPU .802 for 3rd BIPU Private address will be set
Subnet mask (BIPU)	Subnet mask of BIPU-Q1A	255.255.255.0
Default gateway	Default gateway of BIPU-Q1A	0.0.0.0

Table 1-10 IP-Trunk Information

Program	Description	Settings
ILG	ILG number	7
	Kind of trunk (Analog/ISDN)	ISDN
	Type of trunk	TIE
OLG	OLG number	4
	Kind of trunk (Analog/ISDN)	ISDN
	Type of trunk	TIE
ISDN trunk	CG number	1: 1st BIPU-Q 2: 2nd BIPU-Q 3: 3rd BIPU-Q
	Type of protocol	IP
	ILG	7
	OLG	4
Voice coding procedure	CODEC (G.711, G.729A)	G.711
Index of Voice attribute table	(1~256)	1
Parameter of voice attribute table	-	Packet Interval: 20ms Type of Jitter buffer: Fixed Size of Jitter buffer: 1 Max Acceptable Delay: 1 Measure Time: 1000ms Packet Loss Ratio: 5 Packet Discard Ratio: 5

Table 1-11 LIPU Strata Net Automatic Settings

Item	Description	Settings
Card Type	Card Type	LIPU
IP address (LIPU)	IP address of LIPU	In the order of smallest number of the slot where the LIPU is inserted 192.168.254.200 for 1st LIPU .201 for 2nd LIPU .202 for 3rd LIPU Private address will be set
Subnet mask (LIPU)	Subnet mask of LIPU	255.255.255.0
Default gateway	Default gateway of LIPU	0.0.0.0

Table 1-12 Strata Net IP-Trunk Information

Trunk Type	Assignment	Run Programs in Sequence from left to right				
Strata Net	Basic	304	306			
	Node	656	651	653	654	655
	Remote node	670				
	Mapping	657	658	659	660	
	Network over IP	672	671			

Table 1-13 System Information

Item	Description	Settings
QoS control	Priority control by Diffserv. IEEE802.1p	Diffserv: Disable DS Field: 0 IEEE802.1p: Disable Priority: Voice (6)

CIX Processor NIC Interface TCP/IP Auto-programming

The following are the initial values of the LAN data that is automatically created for the system.

- Network TCP/IP. See “916 IP Configuration” on page 10-10.
 - IP address – 192.168.254.253
 - Sub network master – 255.255.255.0
 - Default gateway – 0.0.0.0
 - IP routing table – Not used
- SNMP Agent settings
 - Community name – communityName
 - IP address – 0.0.0.0 (not restricted by the IP address of the access source)
 - Privileges – WRITE
 - community-id – 1
 - User level – Super user
- Trap destination
 - Community name – Nothing
 - IP address – Nothing
- Modem PPP Server settings
 - IP Address – 192.168.255.254 (Strata CIX modem fixed IP address for dial-up connections).

Table 1-14 Public Numbering Plan Analyzed Digit Numbers (Program 117)

Public Numbering Plan Analyzed Number	Public Numbering Plan Analyzed Digit Number
1NXX	11
N11	3
NXX	7
N = 2~9 and X = 0~9	

Table 1-15 E911 Emergency Call to Outgoing Line Group (Program 550)

Emergency Call Group Number	OLG1
1	1

Table 1-16 E911 Emergency Call Destination (Program 400)

System Mode	Emergency Call Called Number Index	Emergency Call Called Number
DAY1	1	200 or 2000 (the first PDN)
DAY2	1	200 or 2000 (the first PDN)
NIGHT	1	200 or 2000 (the first PDN)
The emergency call destination is set for the first PDN as 200 or 2000 in the all operation mode (DAY1, DAY2 NIGHT).		

Table 1-17 Program 204 Default Data

In Program 204, all telephones are programmed as 20 buttons.
--

Table 1-18 Program 102 New Default Data

Feature Code	Default Value	Function
870	#963	Call monitor log off

Table 1-19 Program 205/213/215 New Default Data

Feature Code	Function
870	Call monitor feature button

Table 1-20 Program 313 Default Data

Caller ID	Prog 313	Function	
	field 1	Caller ID receive method	<u>nothing</u> /ANI-MCI/ANI-Sprint/CLASS
	field 2	Caller ID identification notice contents	<u>ANI and DNIS</u> /DNIS/DID

Underlined entry is CIX100 and CIX200 default

Table 1-21 Program 100 Default Data

Virtual Slot Equip. Nos. *	Circuits	PCB Code	Station Line Numbers	Connection
0101	8 - Digital telephones (no spkr OCA)	017	200~207	GMAU1A (motherboard)
0102	3 - CO lines, with CLID	028	CO1~CO3	
0103	Not used			
0104	Standard telephone 01~02	026	01~208 02~217	01-GMAU1A 02-GSTU1A
0105	4 - Voice mail ports	026	220~223	GVMU1A
0106	Not used			
0107	8 - Digital telephones	017	209~216	GCDU1A
0108	3 - CO lines with CLID	028	CO4~CO6	
0205	Virtual BIOU	020	Relay Contact Page, MOH	GCTU1A

*Slot codes are set during system initialization and cannot be changed.

Default Feature Access Codes

Refer to "102 Flexible Access Codes" on [page 4-3](#).

Note For DKT and IP telephone, assign only the PDN. Do not program any other Flexible Buttons or features in the phones. Strata CIX recognition and setup is automatic for these telephones.

Plan Your System Requirements

Plan your Strata CIX system requirements in detail before beginning your installation. The following are some areas to consider:

- **Flexible Numbering Plan (102)** – Planning your Flexible Numbering requirements is essential to a smooth installation. Trunk group access and station range requirements are especially important areas of consideration.
- **COS (103)** – Determine the Class of Service (COS) requirements for your station and trunk groups. There are up to 32 possible COS plans.
- **DRL (111)** – Define up to 16 Destination Restriction Level (DRL) assignments.

Important! Destination Restriction is an expanded feature of what has traditionally been known as Toll Restriction. Toll Restriction is only one facet of Strata CIX's Destination Restriction feature. Refer to Destination Restriction in this manual when programming Toll Restriction requirements.

- **FRL and QPL (506)** – Define up to 16 Facilities Restriction Level (FRL) and Queuing Priority Level (QPL) assignments.

Program the CIX for First Time

Follow these steps to program the CIX for the first time. Following this initial setup procedure enables you to perform a Strata CIX setup with common System and Station default assignments. Toshiba recommends adherence to these procedures for initial setup. Refer to the CIX40 Installation and Maintenance Manual (CIX-IM-CIX40-Vx) for the CIX40 default database and start-up procedures.

1. **Card Assignments (100)** – Choose System > Card Assignment. It is not necessary to physically install PCBs prior to programming the Strata CIX.

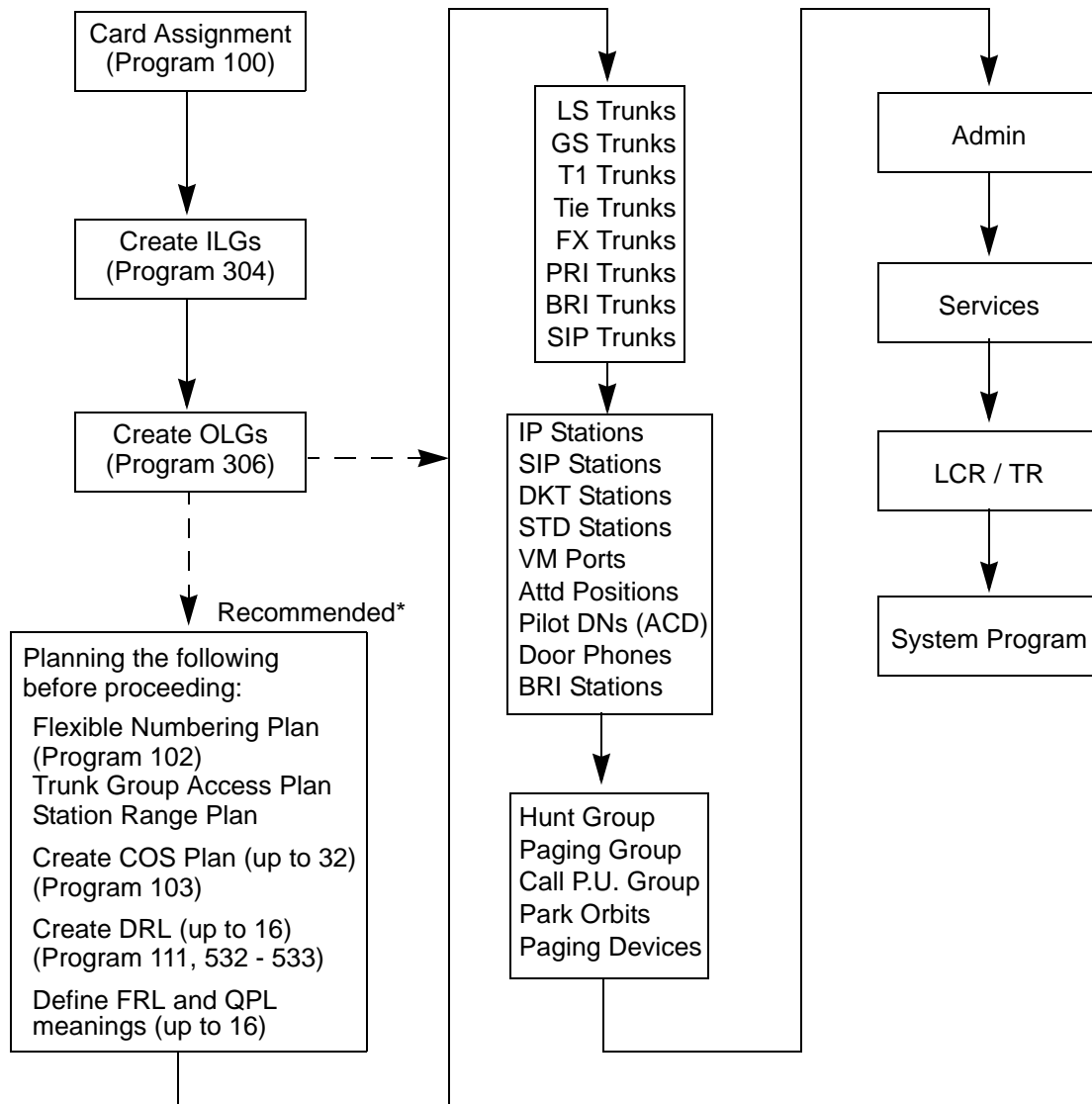
If you physically install your PCBs prior to initial setup, Strata Network eManager automatically recognizes PDKU, BDKU/BDKS, RSTU, RCOU/RCOS and RGLU PCBs and assigns default stations and trunks automatically. All other PCBs are assigned manually. See "100 Cabinet Slot PCB Assignments" on [page 4-1](#) for more details.

2. **ILG Assignment (304)** – Choose Trunk > ILG to assign Incoming Line Groups (ILG). See "304, 305 Incoming Line Group" on [page 6-1](#) for more details. ILGs enable line groupings of shared Class of Service features for incoming call handling.
3. **OLG Assignment (306)** – Choose Trunk > OLG to assign Outgoing Line Groups (OLG). See "306, 307 Outgoing Line Groups" on [page 6-5](#) for more details.
4. **Trunk Assignment (300)** – Choose Trunk > Trunk Assignments and click the Basic tab. Set up your trunks in the following order (see "300, 301 Trunk Assignment" on [page 6-7](#) for more details):
 - Loop Start Trunks
 - Ground Start Trunks
 - T1 Trunks
 - Tie lines
 - FX lines
 - PRI lines
 - BRI lines

5. **Station Assignment (200)** – Choose Station > Station Assignments > Basic tab. Set up your stations in the following order (see "Assignment" on [page 5-1](#) for more details):
 - DKT Stations
 - DP Stations
 - IP Stations
 - Standard Stations
 - Voice Mail (VM) Ports
 - Attendant Positions
 - Automatic Call Distribution (ACD) Pilot DNs
 - Door Phones
6. **Create Station Links** – Create the following groups wherever applicable and set stations to link as necessary.
 - Hunt Groups using Programs 209 and 218
 - Paging Groups using Program 502
 - Call Pickup Groups using Program 210
 - Park Orbits using Program 102
 - Paging Devices using Program 503
7. **Backup Data** – Choose Maintenance > CIX Data Backup. Make sure the SmartMedia card is properly formatted (see "Restoring Data from SM/SD" on [page 10-2](#)) prior to running backup. See "910 Data Backup" on [page 10-9](#) for details.
8. Continue programming Strata CIX details.

Review Program Flow

The basic program flow needed to set up the Strata CIX is shown below. The figure displays the most critical programs in the left column and migrates right to optional programs. Also, programming flows from specific (left) to general (right).



* Planning these details in advance enables Strata setup to proceed smoothly.

Identify Program Sequences

Use the following tables to quickly identify the programs needed to fulfill your setup requirements. See the Index to correlate program numbers and their functions.

Station Setup

Use the following table to quickly access the programs needed to set up station requirements.

Station Type	Assignment	Run Programs in Sequence from left to right							
SLT	DN	100	200						
IP	PDN	100	150	260					
DKT DP	PDN	100	200	204	208	205			
	PhDN	205	206						
	DADM	204	213						
	DDSS	214	215						
	Attd	100	200	204	208				
	Ext	100	200	208					
	VM	100	200	204	206	209	218	579	580
ISDN	Ext	100	202	217					
Pilot DN		540							
Station Hunting		209	218						
Call Pickup Groups		210							
Emergency Ringdown		216							
Paging Groups		502							
Station Speed Dial		516							

Trunk Setup – Analog

Use the following table to quickly access the programs needed to set up analog trunk requirements.

Trunk Type	Assignment	Run Programs in Sequence from left to right							
LS/GS	Basic	100	304	306	300				
	Ring	310							
	Timer	308							
	DISA	310							
Tie line	Basic	100	304	306	300				
	Timer	308							
	DISA	310							

Trunk Type	Assignment	Run Programs in Sequence from left to right						
DID	Basic	100	304	306	300			
	Ring	309						
	Timer	308						
	DISA	309						
	DNIS/ANI	313						
	Intercept	318	319					

Trunk Setup – T1

Use the following table to quickly access the programs needed to set up T1 trunk requirements.

Trunk Type	Assignment	Run Programs in Sequence from left to right						
LS/GS	Basic	100	304	306	300			
	Data	315						
	Ring	310						
	Timer	308						
	DISA	310						
Tie line	Basic	100	304	306	300			
	Data	315						
	Timer	308						
	DISA	310						
DID	Basic	100	304	306	300			
	Data	315						
	Ring	309						
	Timer	308						
	DISA	309						
	DNIS/ANI	313						
	Intercept	318	319					

Trunk Setup – ISDN PRI

Use the following table to quickly access the programs needed to set up ISDN PRI trunk requirements.

Trunk Type	Assignment	Run Programs in Sequence from left to right						
DID	Basic	100	304	306	302	320	105	
	Ring	309						
	DISA	309						
	DNIS/ANI	309						
	Intercept	318	319					
	CNIS	321	322					

Strata CIX Programming Guidelines

Use Default Auto-programming to Start Up

Trunk Type	Assignment	Run Programs in Sequence from left to right						
Tie line	Basic	100	304	306	302	320	105	
	Ring	309						
	Timer	308						
Shared D-Channel		100	304	306	302	320	316	
CBC		100	304 ¹	306 ¹	302 ²	320	323 ³	324
Notes								
1. Each CBC Group may require one ILG and one OLG.								
2. Do not assign ILG/OLG using this program.								
3. Assign ILG and OLG using Program 323.								

Trunk Setup – ISDN PRI - Strata Net

Use the following table to quickly access the programs needed to set up ISDN PRI trunk requirements.

Trunk Type	Assignment	Run Programs in Sequence from left to right						
Strata Net	Basic	100	304	306	302	120		
	Node	656	651	653	654	655		
	Remote Node	670						
	Mapping	657	658	659	660			
	Network DN	318	319					

SIP Trunking

Trunk Type	Assignment	Run Programs in Sequence from left to right						
SIP Trunk	Basic	100	304	306	326			
	Service	327	328	329				
	MIPU/GIPU	161						

Miscellaneous

Use the following table to quickly access the programs needed to set up other Strata CIX features.

Feature	Run Programs in Sequence from left to right									
Account-Codes	570	571	103	506	306					
Alarm Notification	Utilities>Operations>Trap IP Setup									
Analog Station with CLID Support	100	200								
Automatic Busy Redial (ABR)	103	208	104							

Feature	Run Programs in Sequence from left to right									
Automatic Call Back (ACB)	104									
Automatic Camp-On	304									
Auto-Release of CO	308									
Background-Music (BGM)	102	103	109							
Call Forwarding	103	200	217							
Call History	204	205								
Call Park Orbit	104	102								
Call Pick Up	210	103	200	205	102					
Call Xfer W/ Camp-On	103									
Centralize SMDR	803	801								
COS-CO	304	306								
COS-Station	200	202								
Credit-Card Calling	105	111	306							
Day/Night service	500	106	112	113	103	105				
Destination Restriction	200	202	306	650	530	531	532	533	534	
Dial Directory	204									
Digital PAD	107	114								
Direct Inward Dialing	309	318	304							
Direct Inward Termination	304	310								
DISA	311									
Do not Disturb (DND)	103	204	205	102						
Door Lock Control	104	204	508	205						
Door Phones	102	507	573							
DR Override by System's Speed Dial	105									
DTMF Back Tone	204									
DTMF DP Compatible	104									
DTMF Signal Time	579	104								
E911	105	200 202	217	550	104	306				
Emergency Ring-Down	216									
Executive Override	103	105								
External Ringing Repeat	300	204								
Flash	308	205	102	103						
Flexible Numbering	102									
Group Paging	502	503	102							
Identification Services	309	318	579							
Least-Cost-Routing (LCR)	520	521	522	523	524	525	526	528	529	103
Line Group	304	305	306	307	317	302	323	300		
Message-Waiting Light	204	102	579							
Music-on-Hold	102	105	109	309	310					

Strata CIX Programming Guidelines

Use Default Auto-programming to Start Up

Feature	Run Programs in Sequence from left to right									
Network Call – Incoming	102	656								
Network Call – Outgoing	102	651	653	654	655					
Off-Hook Camp-on	104	200	217							
Out-Going calls	200	217	104							
Relay Services	515									
Ringing-Transfer	105									
SMDI	200	202	579	580						
SMDR	512	513	514	803	801	804				
Station CO Line Access	204									
System Call-Forward	200	217	104	500	504					
Tandem Connection	103	104	300							
Tone-First/Voice-First	204	206								
Traffic Measurement and Report	921	922								
Travelling COS	105	200	510							
Uniform Call Distribution	103	209	218	219	205					
VLAN Tagging	Advanced Configuration>IP-Telephony>IPT VLAN Setup									
Voice-Mail Interface See " Telephone Station Ports " on page A-2	100	200	209	218	579	580	803	804	309	318

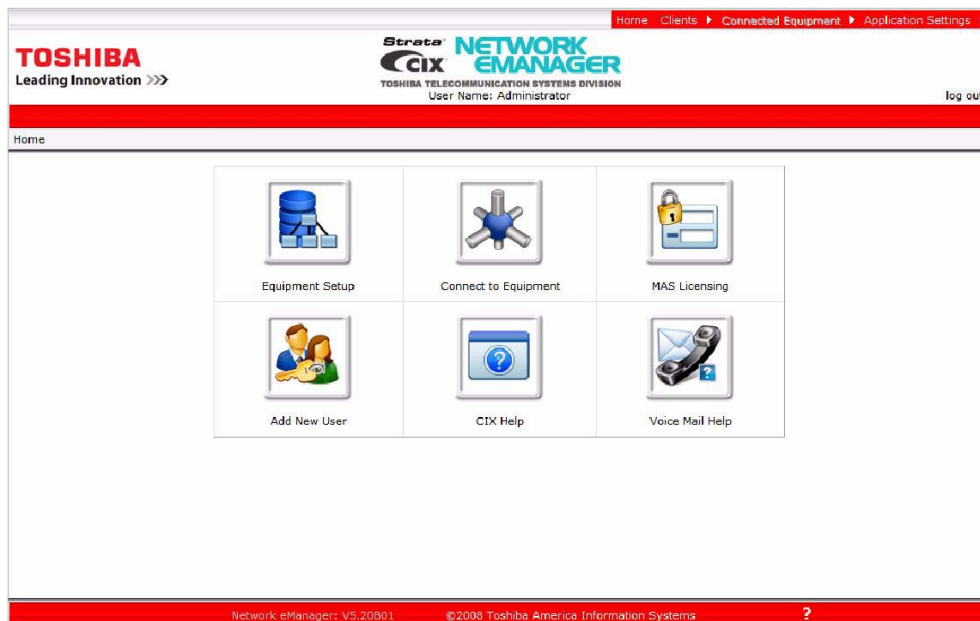
The Strata CIX systems are programmed using Network eManager. It is recommended you check FYI to ensure you have the latest version.

Network eManager is designed to reduce the time needed to manage multiple CIX equipment sites and improves system installation through such capabilities as the “Smart Checker” installation process and the Active Directory Services export/import feature.

Situations when an administrator needs to configure multiple CIX systems as a group include:

- Multiple CIX systems in a Strata NET configuration.
- Setting up several CIX systems at different sites through a LAN at the same time.
- Several sites, at different geographical locations, each with its own CIX, all managed centrally over a WAN.

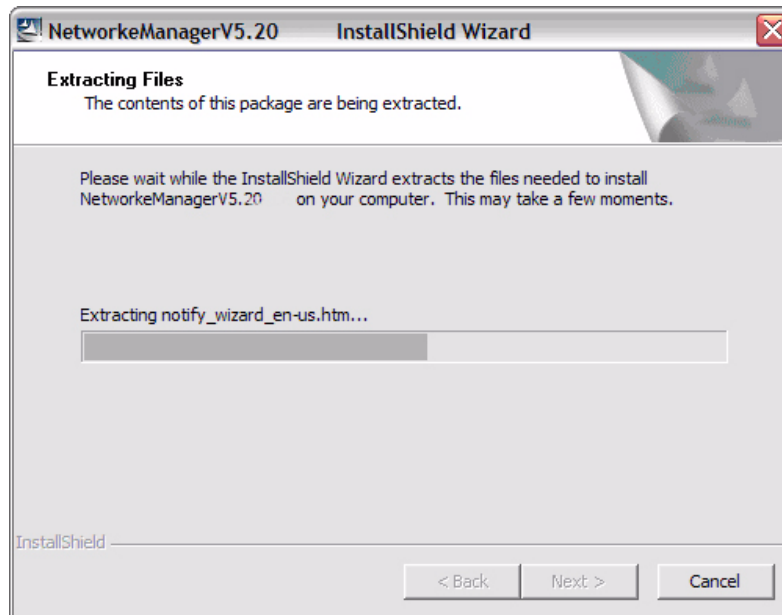
Note Your version of Network eManager may be different from the version in these screens. However, the installation procedure is the same for all versions of Network eManager version 5.20A06 and later.



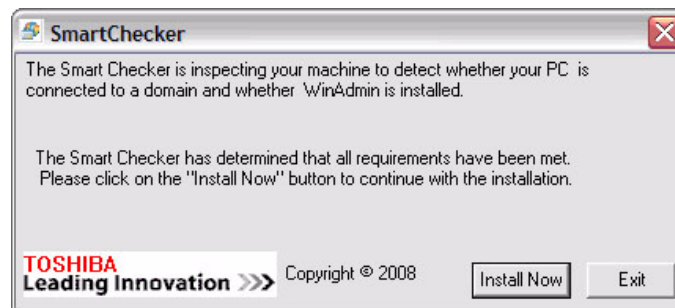
Installation Procedures

Download the new latest version of Network eManager from FYI and run the Network eManager install file to begin the InstallShield as shown below.

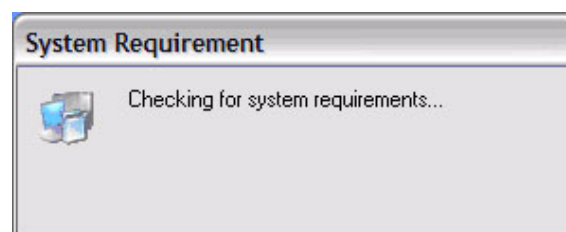
1. Run NetworkeManager .exe install file.



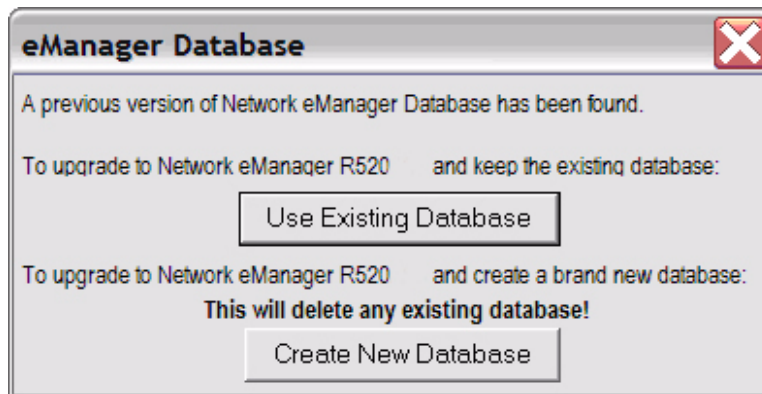
2. Select **Install Now**



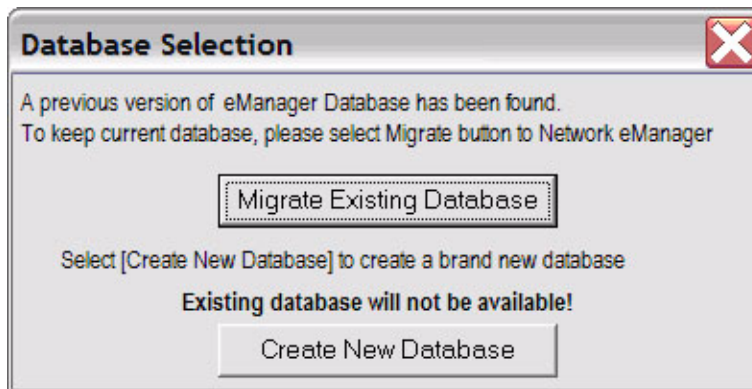
3. The system will continue to check other prerequisites.



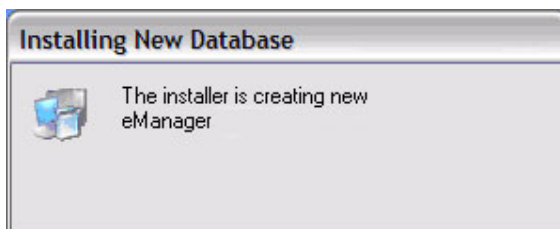
4. If the user has a previous version of Network eManager installed and performs an upgrade, either this window is displayed or the Migration screen below.



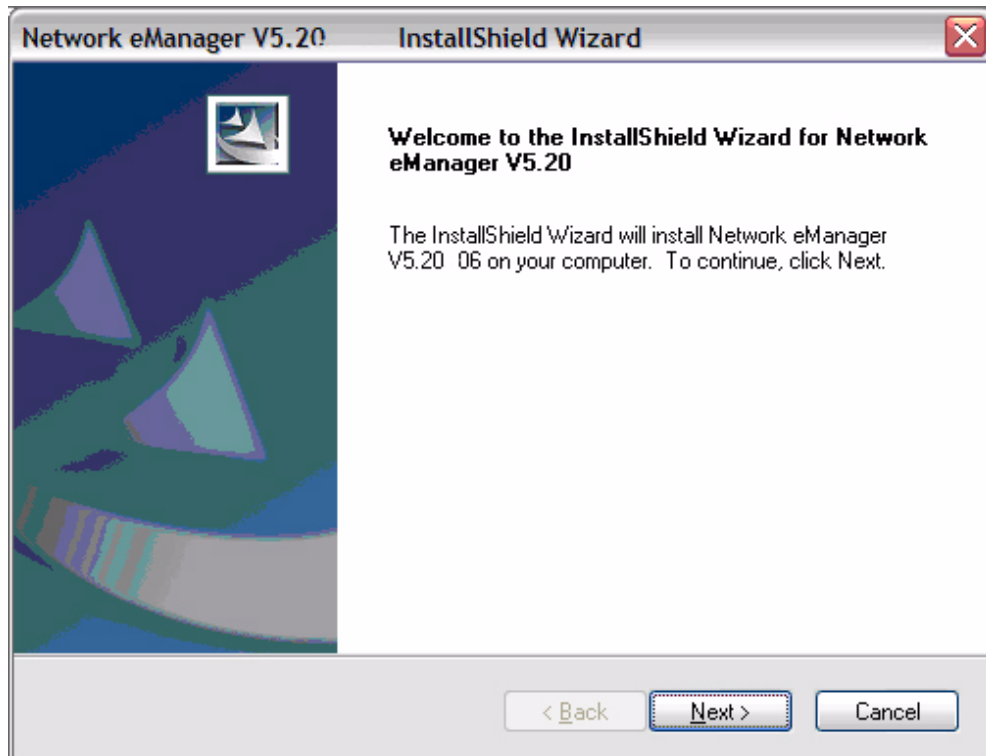
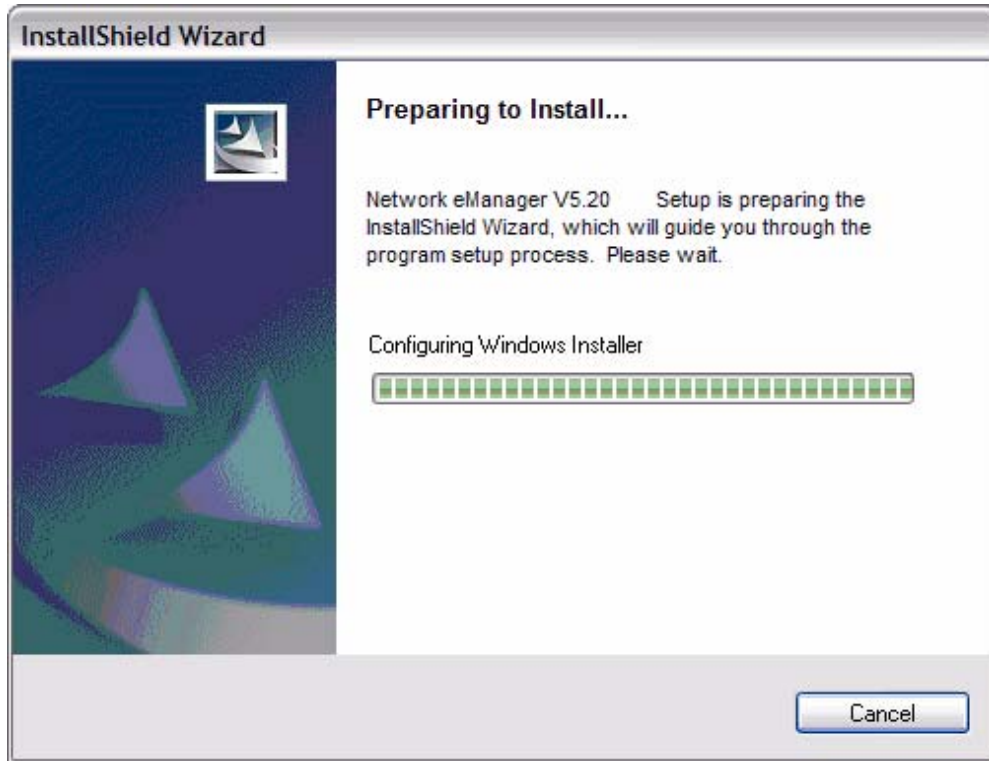
Migration Screen

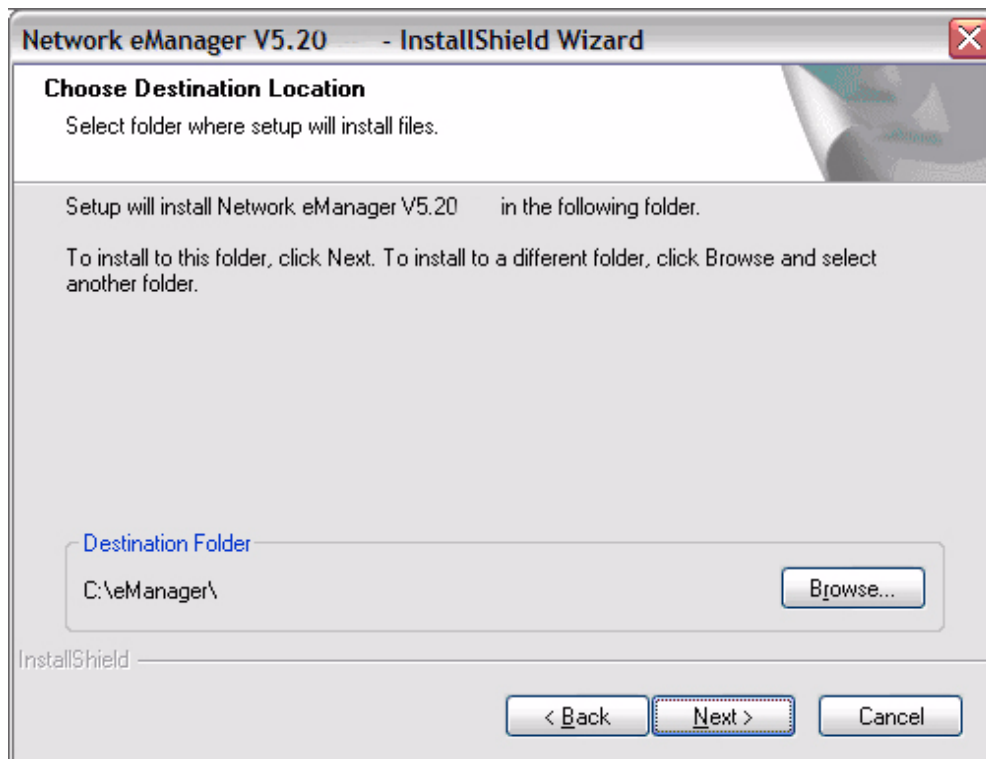
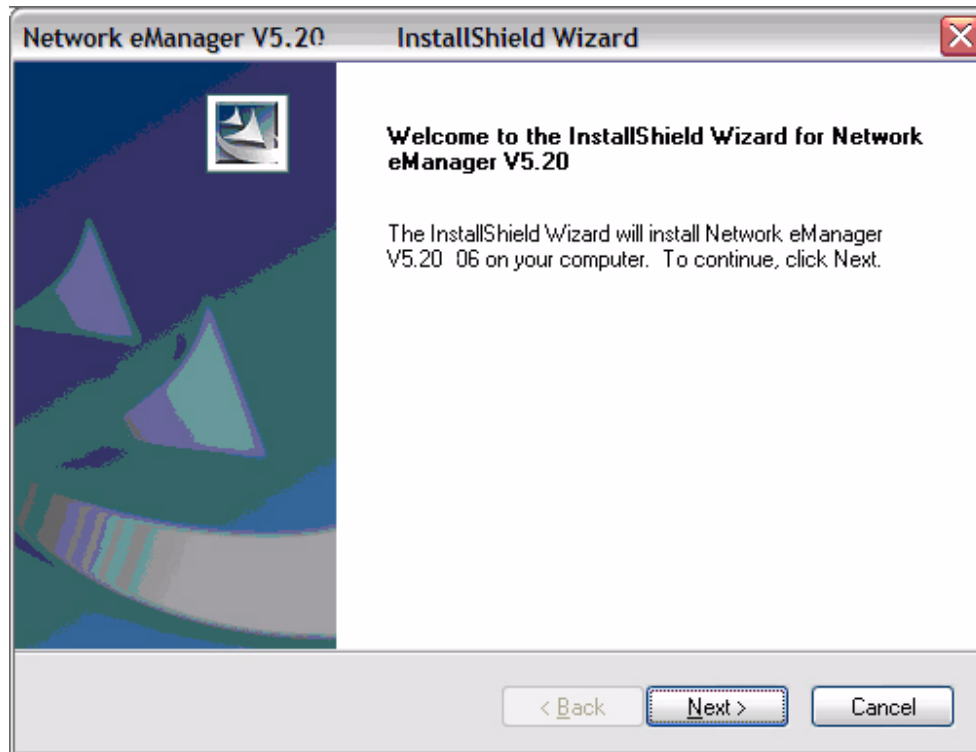


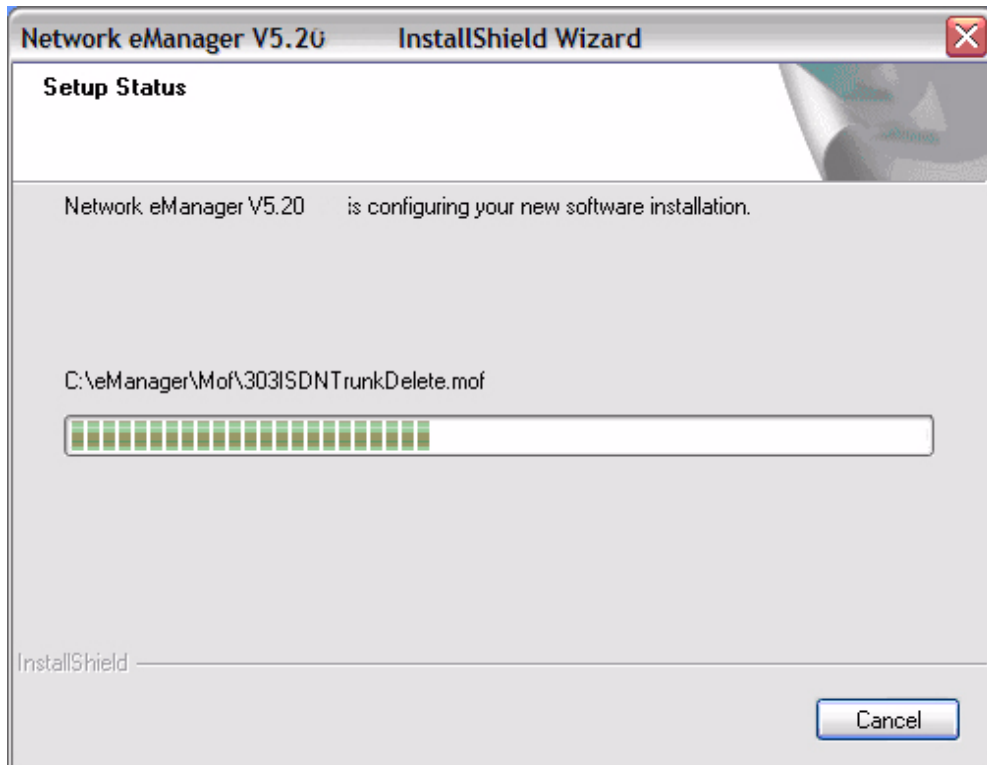
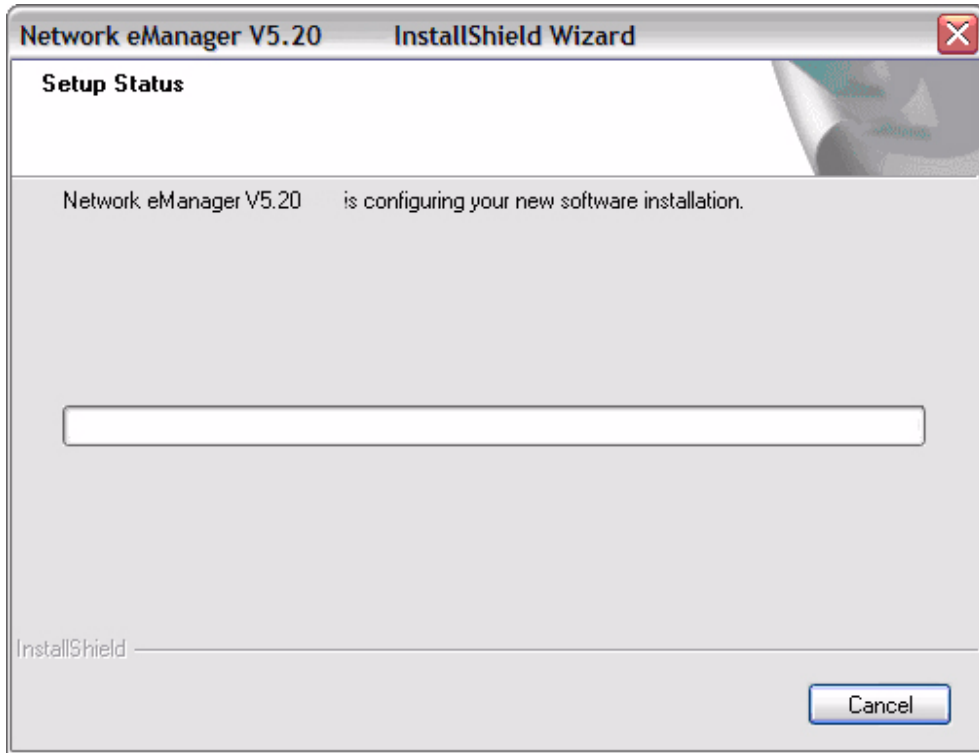
5. Select **Create New Database** in either screen to install SQL database:

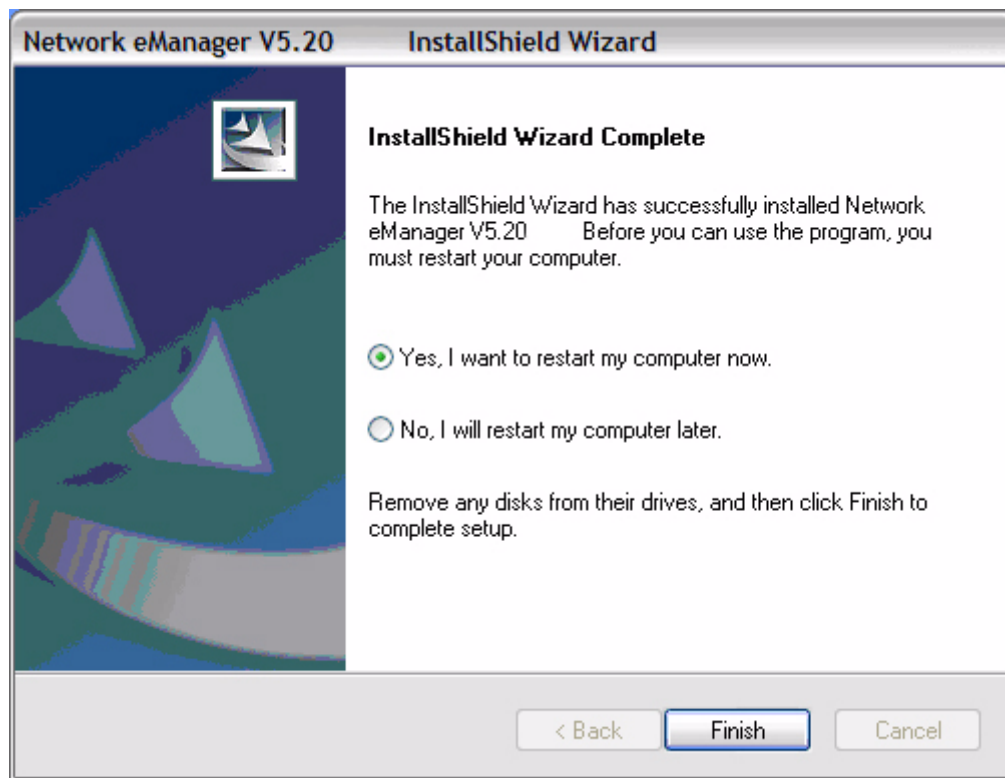


6. After the SQL database completion, the installer starts the Network eManager installation:









At the end of the installation process, click **Finish** to restart the PC. Once the PC is restarted, verify that you are able to login to Network eManager and, if necessary, reconnect to the Windows domain.

System Requirements

A PC or server must meet the minimum requirements listed below.

- 1 GHz 32-bit (x86) or 64-bit (x64) processor
- Windows® XP Professional SP2 (See **Important!** below) or above, Windows Vista Business Edition, Windows 2003 Server or Windows 2000 Professional
- Memory and available hard disk space requirements

Operating System	Windows XP Professional Windows 2003 Server	Windows Vista Business
Memory Required	512 MB (min), 1 GB (recommended)	1 GB (min), 2 GB (recommended)
Available Hard Disk Space	512 MB (min), 1 GB (recommended)	1 GB (min), 2 GB (recommended)

- CD or DVD-ROM drive
- 10/100BaseT Network Interface Card
- Internet Explorer 6.00 or later
- Microsoft Add-On Components:
 - IIS, Management and Monitoring Tools, .NET Framework 2.0 or above.

Note The Windows operating system (as appropriate) CD-ROM must be available if any of the above are not already installed.

Note The Network eManager Help file is compatible with Adobe® Reader® 5.0 and later, except versions 7.0.6, 7.0.7 and 7.0.8.

Important!

- If the system is running Windows XP Professional with SP2, the firewall that is automatically included and enabled in Windows XP Professional - SP2 prevents login to Network eManager. When running Windows XP Professional with SP2 you should turn off the firewall or follow the firewall configuration guides in the MAS Installation section.
- The pop-up blocker in all Windows applications, anti-virus, and other applications must also be turned off.

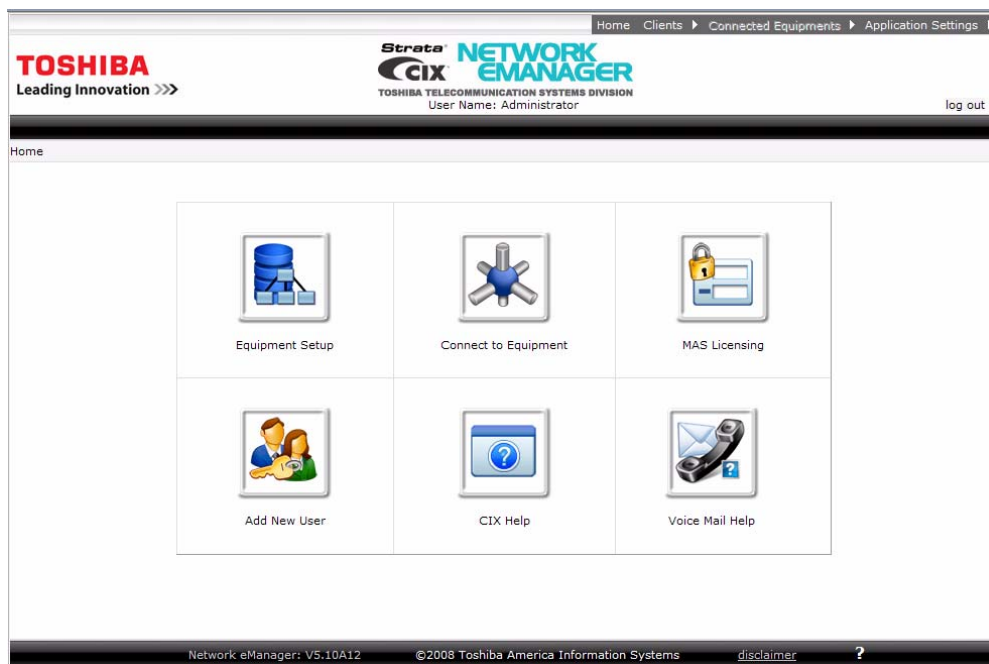
Anti-Virus Software

When a system has access to the internet anti-virus protection is recommended.

Network eManager Main Menu

When a user logs into Network eManager the main menu appears. The main menu includes the following menu icons:

- **Equipment Setup** — This new location is where the CIX system sites are built. The Equipment Setup allows the technician to add new equipment or add equipment to an existing site, update equipment and delete equipment.
- **Connect to Equipment** — This new option allows the user to select one or multiple CIX systems.
- **MAS Licensing** — This new MAS Licensing utility is similar to the previous eManager utility Add New User — This is where individual Network eManager user IDs can be built with one of four permission levels.
- **CIX Help** – This feature allows the technician to view the online version of this manual, Programming Manual, Vol 1
- **Voice Mail Help** - This selection allows the technician to view the Programming Manual, Vol 2, Strategy ES Voice Mail Application.



There is also a menu bar in the top right corner of the screen. This menu has four Menu Headings.

- **Home** - Returns to the main menu screen.
- **Clients**
 - **Client Equipment Setup** - This is the same as selecting the Equipment Setup Icon
 - **Connect to Client Equipment** - This is the same as selecting the Connect to Equipment icon
 - **Connect to Client SES Only** - Allows you to connect to just SES system without connecting to Strata CIX system.
- **Connected Equipment** - Shows the system(s) to which NeM is connected. Only available when the NeM is connected to one or more systems.
- **Application Settings**

- **Choose another Theme**
- **Account Setup**
 - Add New User - Available only to the Administrator
 - Change Password - A user can change his own password, the Administrator can change any user's password - Passwords can be up to 32 alphanumeric and some special characters (!, @, #, %, \$, &)
 - Change User Level - Available only to the Administrator - the User level can be changed
 - Reset Password - Available only to the Administrator - The Administrator can change a user's password
 - Change Password Policy - Available only to the Administrator - Refer to "Password Policy" on [Page 2-10](#).
 - Delete User - Available only to the Administrator - The Administrator can delete a user
- **Restriction**
 - Restrict User Access
 - Update User Restriction
 - Remove User Restriction

Password Policy

Using the password policy setting, the Administrator can either disable or enable the password security scheme for Network eManager. By default, the Password Policy is set for disable. In disable mode, Network eManager functions as described above. The passwords never expires and can be up to 32 characters in length. If this function is enabled, then all security policy criteria is enabled.

When Password Policy is enabled the system will require the users to change any passwords that do not meet the policy.

Change Password Policy	
Password Policy:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Password Complexity:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Force Password Change:	<input checked="" type="radio"/> Yes <input type="radio"/> No
Days After Password Expires:	<input type="text" value="4"/>
Days To Remind Password Will Expire:	<input type="text" value="2"/>
Minimum Password Length:	<input type="text" value="6"/>
Password History:	<input type="text" value="2"/>
<input type="button" value="Change Policy"/>	

Password Complexity

Password complexity allows for more granular control of the password security features. Password Policy can only be set by the Administrator. Password Policy effects all users. If password complexity is enabled passwords must meet the following:

- Password cannot match the user login name
- Password must have at least the minimum number of characters

- Password is case sensitive
- Password history criteria must be met

Force Password Change

The force password change criteria allows the network administrator to force all Network eManager users to change their password the next time they log in.

Days After Password Expires

The password will expire in this many days. The range is 1 to 365 days.

Days to Remind Password Will Expire

The number of days, before the password will expire, the Network eManager will begin to remind logged in users to change the password. The range is 1 to 365 days.

Days After Password Expires

The password will expire in this many days. The range is 1 to 365 days.

Minimum Password Length

This value determines the least number of characters that a user account can specify for a password. The minimum value is one character and the maximum value is 14 characters. The default value is six characters. The maximum number of characters is 32.

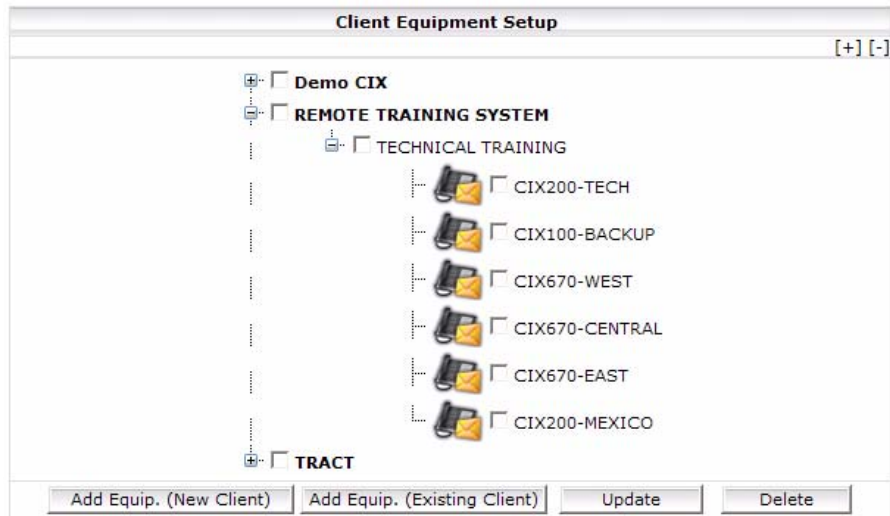
Password History

This parameter sets the number of unique passwords that must be used before a previous password can be re-used. If Password History is set to three, the system will 'remember' the last three passwords, any password entered must be different than the previous three. The default value is two. The range is zero to seven. When set to zero the password history is not enforced.

Equipment Setup

The Client Equipment Setup is used to build new equipment groups, add equipment to existing groups, update equipment, and delete equipment. The Equipment is setup in a three-tier format:

- Company
- Site
- Equipment



In the example, Toshiba Training is a company with a site - Remote Training System. At that site are seven systems. The buttons at the bottom of the screen are:

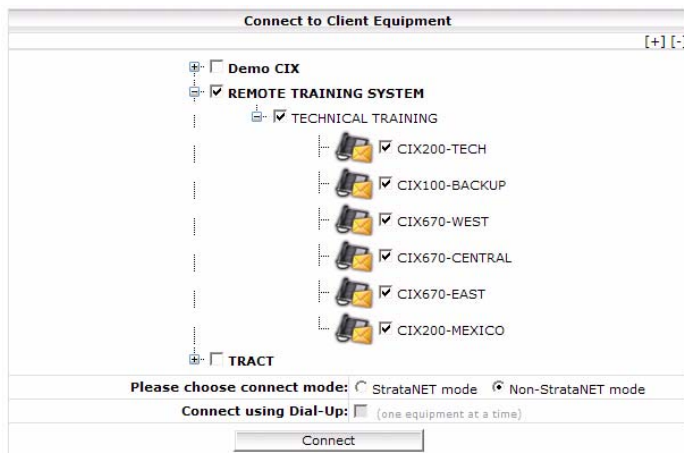
- **Add Equipment (New Client)** – Add a new company, a site, and the first system (Equipment) at that site.
- **Add Equip. (Existing Client)** – Add a site to a company or a system to a site.
- **Update** – Change a company name, site name, system name, or any information about the system.
- **Delete** – Delete the checked item. If a system is checked, only that system is deleted. If a site is checked, all of the equipment assigned to that site is deleted. If a company is checked, all of the sites and equipment is deleted.

Add Equipment Window

The Add Equipment window is used to add a new Company Name, a new Site Name or new Equipment to a site. When adding a company, all of the data including a site and one system must be entered. When adding a site or system, the screen shown below will have the company name and/or the site name fields filled-in based on what was selected when the **Add Equip (existing client)** button was clicked.

Connect To Multiple CIX Systems

One of the most powerful features of Network eManager is the ability to connect to multiple systems at one time. The eManager user can connect to multiple CIX systems in multiple nodes in multiple locations simultaneously. This feature requires an IP connection to all the equipment to which the user wants to connect. In this example, by simply clicking on the Toshiba Training main tree, it places a check mark to all the branch equipment beneath.



Connection Mode

There are two ways to connect to Network eManager. The default is Non-Strata Net mode. The Strata Net mode allows the technician a feature to automatically build Network DNSs to multiple nodes simultaneously.

Add New Station

The Add New Stations utility allows the technician to add a station DN to multiple systems in multiple nodes in a Strata Net system by simply clicking on the Node Selection Panel.

Add New Station

User Name:

Phone Type: SIP

Extension:

Site Name: TSD

Node Name: CIX670-CENTRAL

Template: Default

MAS Licensing

The MAS licensing screen is used to: Upload, Delete, Issue, Activate, and View Licenses.

License Management

Every MAS is preloaded with an eManager server. For eManager server the MAS in the same PC is local, and other MAS systems are remote. To issue and activate MAS licenses, you need to be logged in to the eManager server in the local MAS.

Local MAC Address: 0002B3E98E12

Local Serial Number: 001B77CE12

Uploaded License Container Files in eManager Server			
Date/Time	Name	Serial Number	Local Status

Add New Network eManager User

The Account Setup utility creates new Network eManager users, each with one of four levels of permissions.

Add New User

Level: Level-4

User Name:

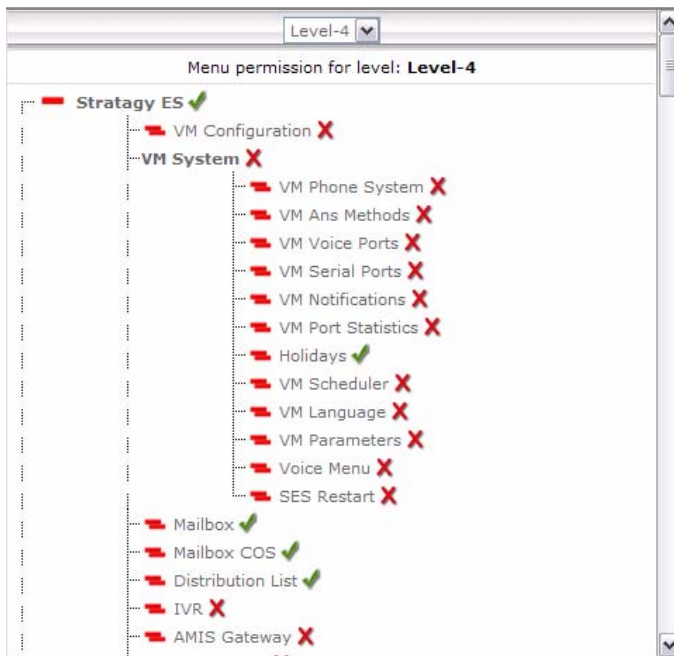
Password:

Confirm Password:

Directory Folder Name:

Allow this user to access Equipment Setup page. Yes No

Clicking on the View Levels Default Permission will show the different access permissions of each level.



Network eManager Toolbar Setup Menu

In addition to the icons on the main menu page, there is a set of menus in the top right hand corner of the Network eManager screen. These menus, similar to the icons on the body of the page, include a menu item, Clients.



In the drop-down menu, click on **Connect to Client SES Only** to connect to the SES in the selected system. Only the Voice Mail menu will be available, all other menu items will be disabled

Application Settings

The Application Settings menu is used to change the color theme of Network eManager, perform account setup and set restriction access. The Account Setup and Restriction Menus are identical to the icon-based menus.

Navigating The Menus

When you click on a command, a drop-down box displays the commands in that function set. For example, all of the Station-related programs are under the Station main menu. The list of station DNs are on the right side. The Node Selection Panel allows you to see the data values from different CIX systems by simply clicking on the equipment name without having to log out.

The left column on the screen shows the Node Connection Panel. All of the current CIX sites that you are connected to are shown. The graphic in the middle of the screen shows the details of all the CIX equipment in the node. The detail information includes: Equipment Type, Equipment Version, Equipment Name, IP Address, Voice

Mail, MAC Address and Country. One node will be highlighted to indicate the current node connection. Clicking on the other nodes display the data for that given node.

Features of Network eManager

Particular features of Network eManager are:

Excel Import

Toshiba has implemented an Excel import utility into Network eManager. Dealer technicians and Network Administrators are able to populate Program 200 Station Data from an Excel spreadsheet. The Excel import utility allows the technician to upload the following information:

- First Name
- Last Name
- Phone Number
- Email Address
- VM MW Center Port

The Excel spreadsheet utility is compatible with any version of Microsoft Excel including Excel 2007.

The Excel import utility works in conjunction with the Active Directory Services utility that is already built-in to the current version of Network eManager.

The technician can either create a new spreadsheet with the above information or use an existing customer spreadsheet that already has the information. The technician simply has to tell which Network eManager which column in the spreadsheet corresponds to: First Name, Last Name, Phone Number, Email Address and VM MW Center port. It does not matter if there are other columns in the spreadsheet that are populated with data.

Performing the Excel Import

1. Prepare the Excel spreadsheet
 - The technician can either create a new spreadsheet from scratch as shown in Figure 2-1 or use an existing Excel spreadsheet that already has the data populated.
 - The columns do not need to be in any specific order. During the import process the technician has the option of specifying which column represents which field.
 - The first row of the Excel spreadsheet **MUST BE USED AS THE HEADER**. Specifically, cell A1 must have data entered (see example, below). The Excel spreadsheet import utility **DOES NOT** use the first row as data.

A	B	C	D	E	F	G
First Name	Last Name	Phone Number	eMail Address	VM MW Center Port		
Ericson	Abing	9495883500	ericson.abing@toshiba.com	3500		
Terrie	Albert	9495883501	terrie.albert@toshiba.com	3501		
Peter	Ambriz	9495833502	peter.ambriz@toshiba.com	3502		
David	Ansehl	9495833503	david.ansehl@toshiba.com	3503		
John	Balboa	9495833504	joh.balboa@toshiba.com	3504		

Data in cell A1

Figure 2-1. Excel Import Data

- Access the Excel import feature in Network eManager
 - The Excel import feature is located in the same location as the Active Directory Services import: **Station -> Strata Synch/Excel**
 - The first time the Excel utility is executed the file list will be empty.
 - Click on the **Browse** button as shown in Figure 2-2.

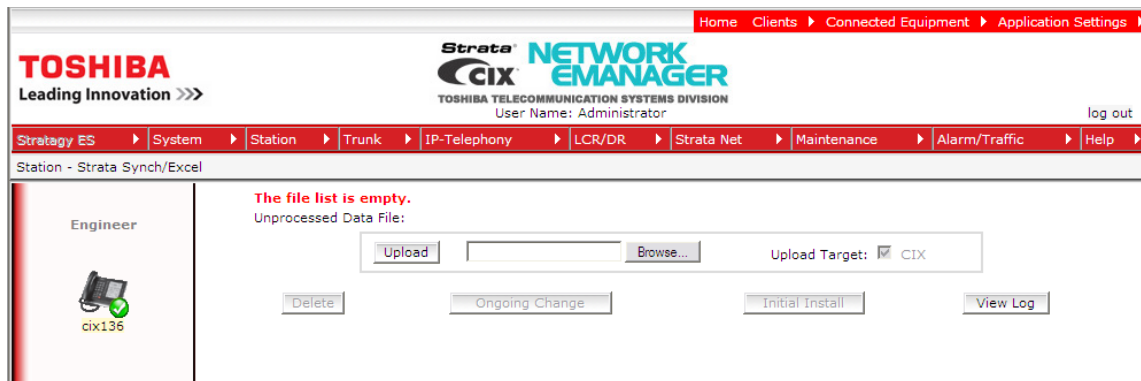


Figure 2-2. Strata Synch/Excel

- Locate the .xls file that was created with the station data and click the **Open** button as shown in Figure 2-3.

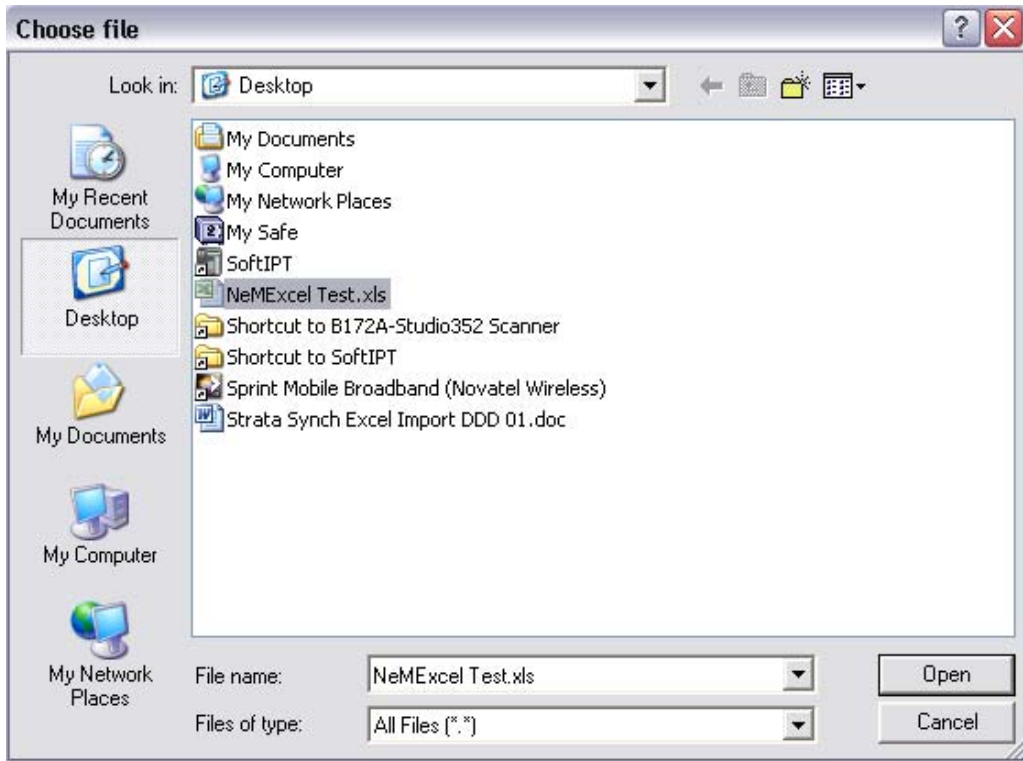


Figure 2-3. Choose File Screen

3. Upload the spreadsheet into Network eManager
 - Once the path to the target .xls file has been entered, click the **Upload** button as shown in Figure 2-4.

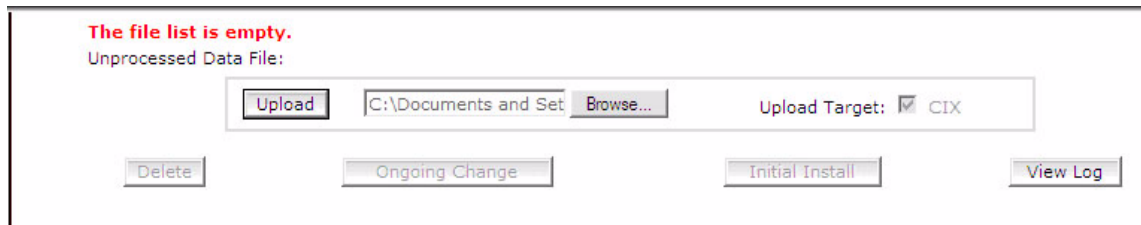


Figure 2-4. Upload Screen

4. Define the data
 - Figure 2-5 is the data definition screen. This screen allows the technician to specify which column represents which particular field. Notice that in Figure 2-5 below, column C is defined as “Column for Extension” but the data actually shows phone numbers. This is acceptable because the technician has the chance to specify which part of the phone number represents the extension number.
 - Click on **Process Data** to continue.

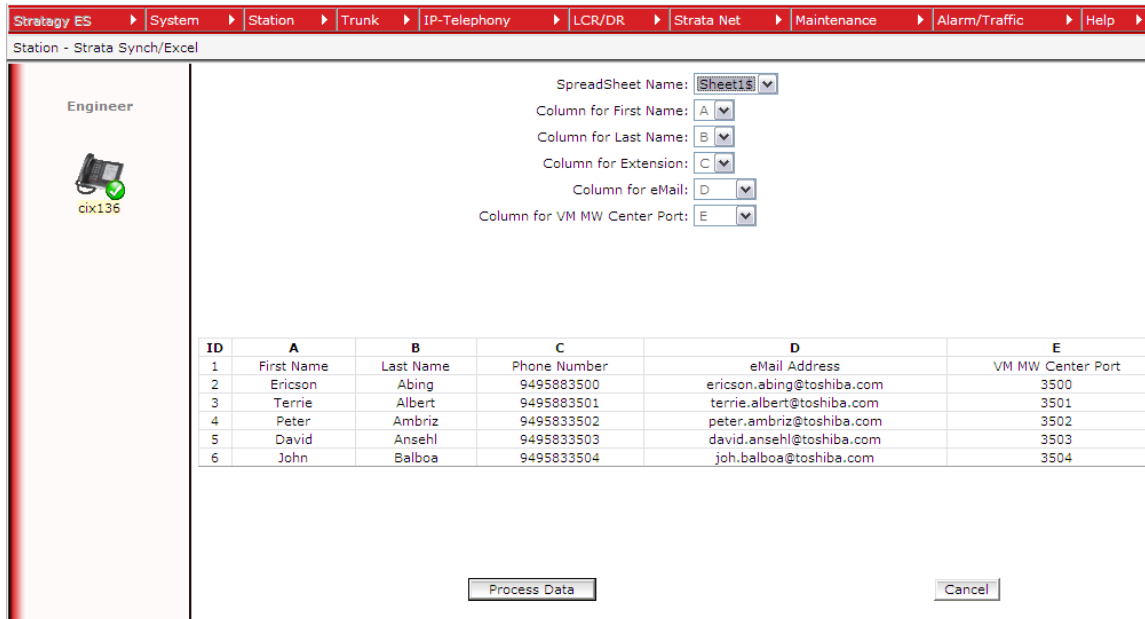


Figure 2-5. Data Definition Screen

5. Step 5 – Verify the data

- Figure 2-6 is the verification screen. This screen allows the technician to make sure field names correspond with the data. Clicking the **Back** button on this screen takes the technician back to the screen shown in Figure 2-5 and modify the columns, if necessary. Clicking the **Cancel** button allows the technician to cancel the entire process and return to Figure 2-1.
- Click the **Save** button to continue with the import process and save the .xls file to the Network eManager PC as shown on Figure 2-6.

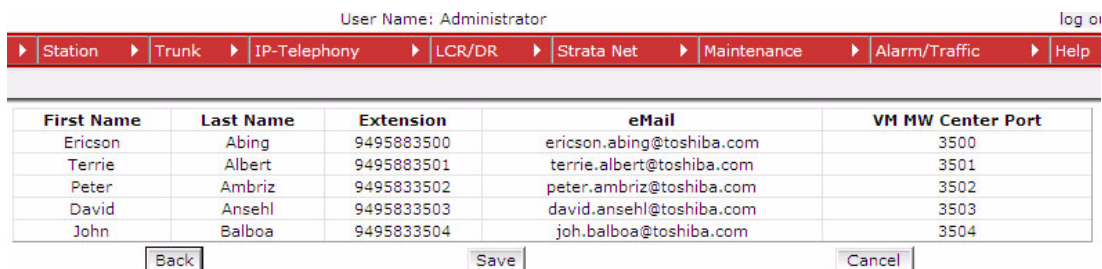


Figure 2-6. Verification Screen

6. Start the import

- Figure 2-7 shows that the spreadsheet has been parsed and verified by Network eManager and is now ready for importing.
- If this is the very first time the Excel import utility has been executed, click the **Initial Install** button.
- The **Delete** button is simply used to delete the previously uploaded spreadsheet file.

- The **Ongoing Change** button is the process for adding, deleting, or changing stations after the initial install. After an initial install has been performed, an image of the database is created on the Network eManager PC. This image is used for comparison when adds, moves and changes are executed. This button is only available after a successful initial install.
- The **View Log** button shows any recent activities adds/deletions and modifications.

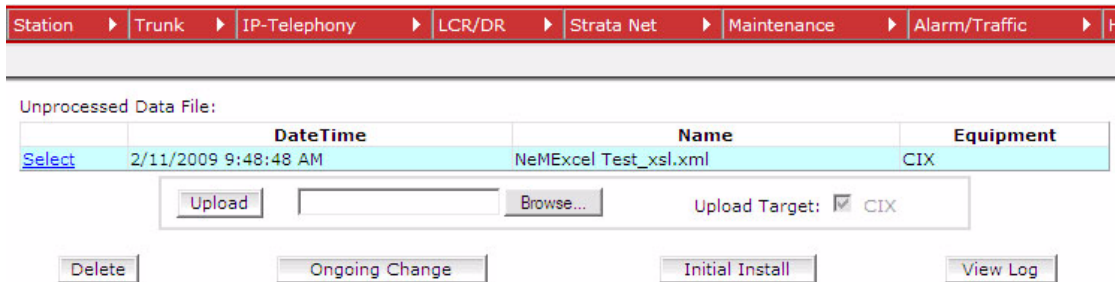


Figure 2-7. Import Screen

7. Define the station types and extension numbers

- From the initial install screen as shown in Figure 2-8, the “Number of DN Digits” specifies how many digits from far right to left should be counted as the extension number. Notice, for example, the user Ericson Abing in Figure 2-8. The telephone number listed is 9495833500. Since the “Number of DN Digits” is set to 4, Network eManager will use the last four numbers as the extension number, in this example, 3500.
- Click **Start** to begin the import process.

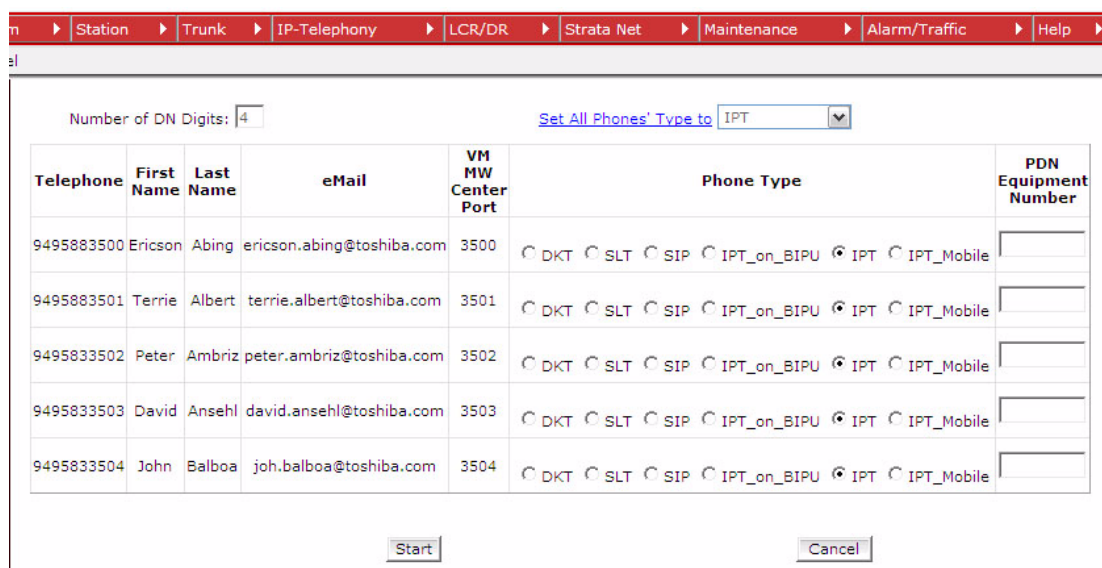


Figure 2-8. Number of DN Digits

8. Finish the Import Process

- Figure 2-9 shows that 5 users were created successfully.
- Click **Done** to exit.

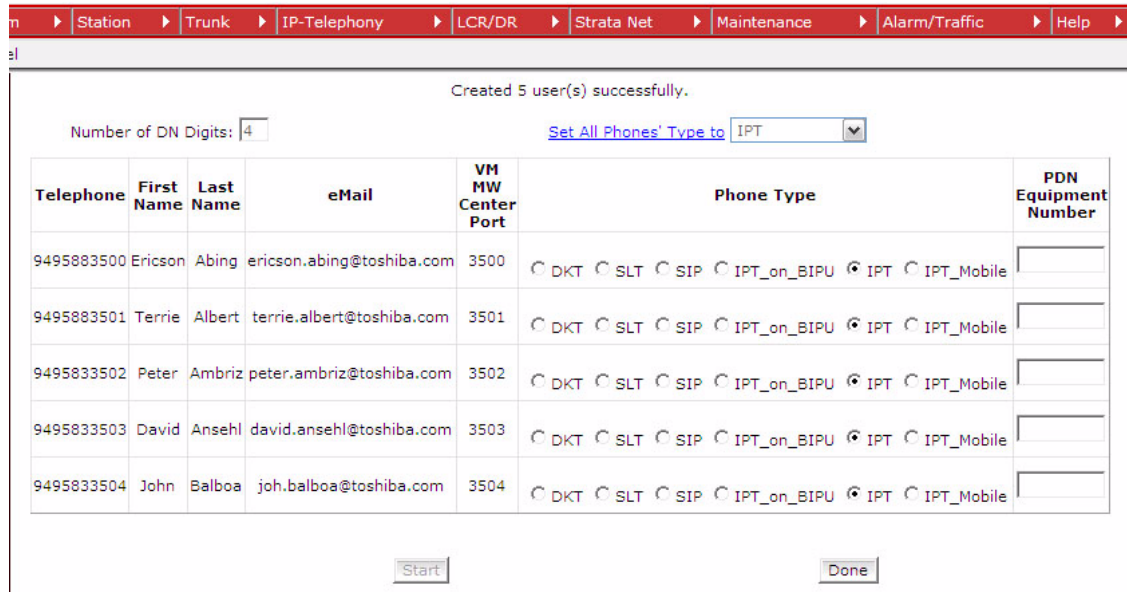


Figure 2-9. Created Users

- Figure 2-10 shows that extensions 3500-3504 have been created.

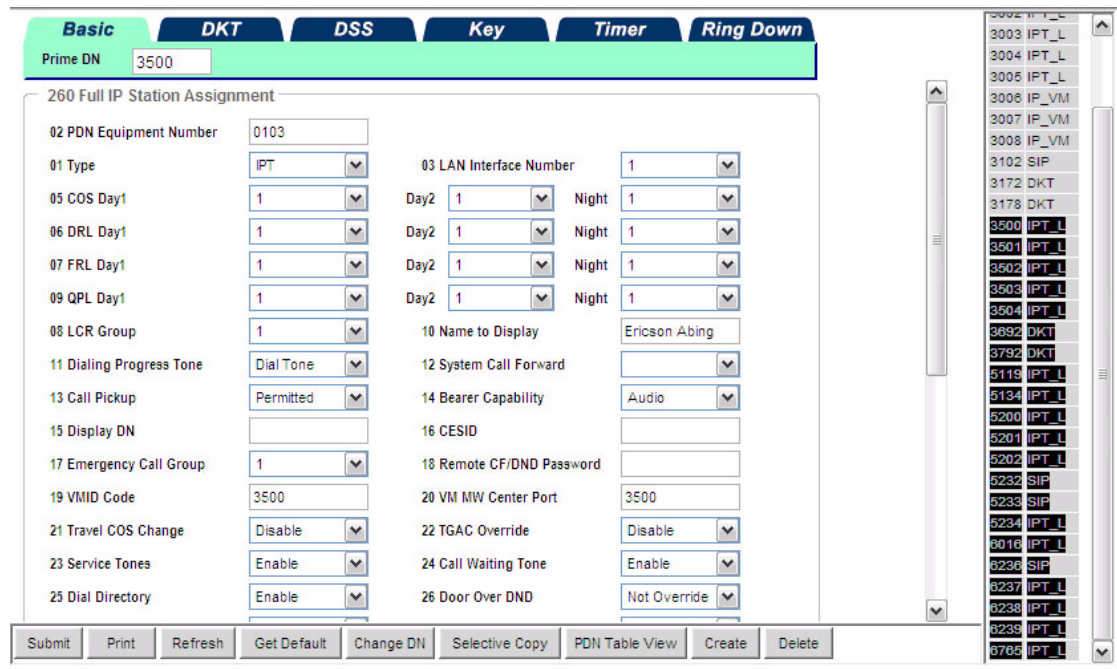


Figure 2-10. Program 260 - Full IP Station Assignments

Strata Synch - Export/Import from Active Directory® Services

Active Directory Services (ADS) is a Microsoft database technology used as a central repository to store information about a network resource. The primary goal of Active Directory services is to provide centralized authentication and authorization services for Windows system-based computers. There are three main objects stored in Active Directory Services: Resources (e.g., printers), Services (e.g., email) and Users. ADS provides control, management, organization, and security for these objects. While Network eManager has its own set of databases, these are not compatible with the ADS databases. This incompatibility in database format forces extra work because data entry must be duplicated in both ADS and Network eManager. However, Strata Synch, in conjunction with Network eManager, provides an interface between ADS databases and Strata CIX systems and Strategy ES voice mail systems. The goal of Strata Synch is to decrease the programming time in new installations by eliminating the need to manually create users in Network eManager and then create a corresponding voice mail box for each user.

The Strata Synch utility can also be used for ongoing maintenance. Changes made to the ADS database (deletion, name change, extension change) can be propagated to the CIX by simply re-running Strata Synch and importing the database file into the CIX via Network eManager. Strata Synch is a one-way synchronization tool - changes made to the CIX (user deletion, name change, extension change) will not update the ADS database.

Strata Synch, in conjunction with Network eManager, performs the following:

- Directly connects to the ADS database and displays a real-time representation of all folders and organization units.
- Technicians can choose to download user information from a single folder or from multiple folders for a multi-CIX site.
- The selected users database is exported to an XML file.
- Using the exported XML file, Network eManager populates the following programs:
 - Program 200/260: Station Data/Full IP Station Assignment
 - Auto create all types of extensions (DKT/IPT/SIP/SLT) and either manually or automatically assigns PDN equipment numbers.
 - FK19 – Automatically assigns VMID code to match extension numbers.
 - FK09 – Populates the Name To Display field from information taken from the ADS database.
 - Stratagy ES Voice Mail
 - Auto-creates a voice mail box for each extension.
 - Pre-fills Name1 and Name2 in the User Mode tab based on the ADS database.
 - Pre-fills the email account information based on the ADS database.
 - Distribution List
 - Auto-creates voice mail distribution lists from group information gathered from the ADS database.

Strata Synch automatically creates stations and voice mailboxes from the user information taken from Active Directory Services. Technicians spend the most time in on new installations creating and modifying stations. If the user information is already stored in the ADS database, Strata Synch can assist in creating stations and voice mail boxes saving the technician the task of having to manually enter in all the stations.

Strata Synch can also assist Network Administrators who manage their company's Strata CIX system. Changes made in the ADS database such as when employees leave the company, name changes, phone number changes, etc., can be propagated into the CIX database by re-running Strata Synch.

System Requirements for Strata Synch

- PC running Windows 2000 or higher (Win2000/2003, XP, Vista).
- The PC running Strata Synch must have network access to the Active Directory Services server.
- Strata Synch requires a Domain Admin level user account in order to connect to the ADS database.
- Network eManager V5.20 A08b or later.
- Strata CIX software R3.X or higher.

Optimum Strata Synch use requires preparation by both the technician and the Network Administrator. In order to extract the user information from ADS correctly, Strata Synch needs to know which folder or organizational unit in which the user information is kept. Strata Synch can either pull the information from one folder or multiple folders based on a keyword. The Network Administrator needs to enter a keyword to define which CIX system the user is assigned to when the user information is entered in the ADS database.

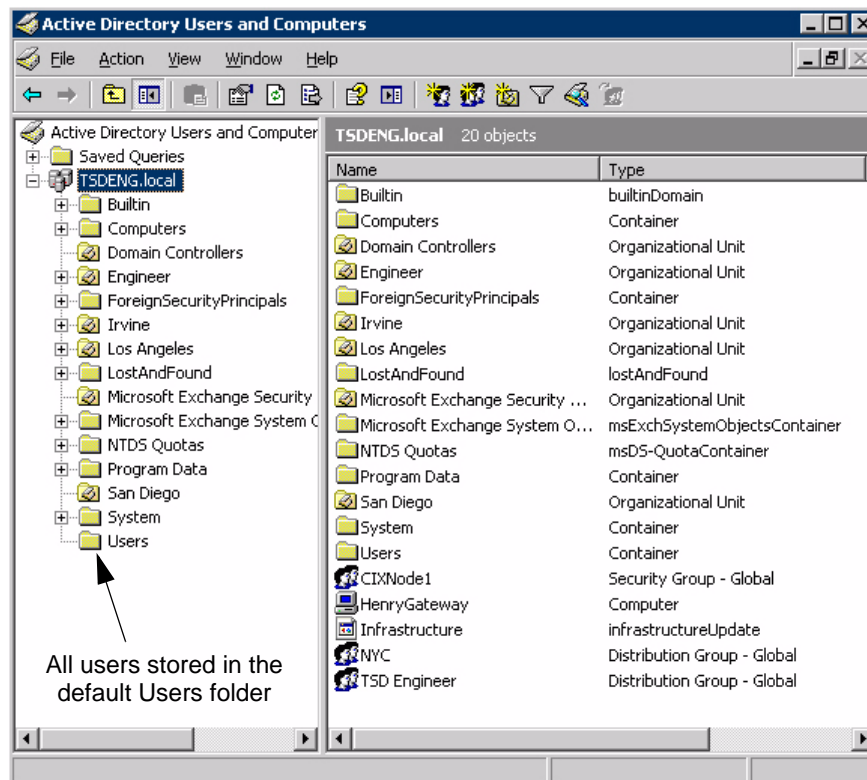
Strata CIX Configuration Assumptions

- **Extension Number** – By default, the last four digits of the telephone number entered into the Telephone number field, as shown in the following figures. This parameter can be set to use up to the last five digits.
- **Extension Name** – The display name is taken from the First and Last Name fields of the General tab in the User properties window.
- **Voice Mail box Number** – The extension number is used as the voice mail box number.
- **Voice Mail Name 1, Name 2** – Name 1 and Name 2 of the voice mail box is taken from the First and Last name fields of the General tab in the User properties window.
- **VMID Code** – The VMID Code in Program 260 FK19 is the same as the Extension number.
- **Unified Messaging email address** – The email address is taken from the eMail field in the General tab of the User properties window in Active Directory.

Example 1 – Single Strata CIX Node

All Users in ADS stored in a Single Folder or Organizational Unit

Shown below is a sample Active Directory Users and Computers screen. In this first example, all of the users are stored in one folder, the default **Users** folder. In this example the technician can simply select the Users folder from within Strata Synch and export all of the contents of the Users folder.



Example 2 – Multiple Strata CIX Nodes

All Users located in the same Users Folder

This example is more complex because it requires assistance from the Network Administrator. For example, this customer has two CIX nodes: one in Los Angeles and one in Irvine. All of the users, however, are stored in the same default **Users** folder. Since all the users are stored in the same folder, Strata Synch must be told how to differentiate users belonging to the Los Angeles CIX versus users belonging to the Irvine CIX. The only way to differentiate users is to put a tag in the Users properties window to allow Strata Synch to filter the different nodes. In the screen below, the user Ericson Abing belongs to the Irvine office as shown in the **Office** field. Users in the Los Angeles office would be tagged as belonging to the Los Angeles location.

Important! The **Telephone number** field must be populated. ADS uses this field to assign the extension number. If this field is left blank no station is created for this name.

The screenshot shows the 'Ericson Abing Properties' dialog box with the following fields and values:

- First name: Ericson
- Initials: T
- Last name: Abing
- Display name: Ericson Abing
- Description: Senior Product Manager
- Office: Irvine
- Telephone number: 949-584-3105
- E-mail: eabing@abc.net
- Web page: (empty)

In the General tab - the Office field is used to identify the user location.

The last four digits (default) are used to create the extension and the voicemail account.

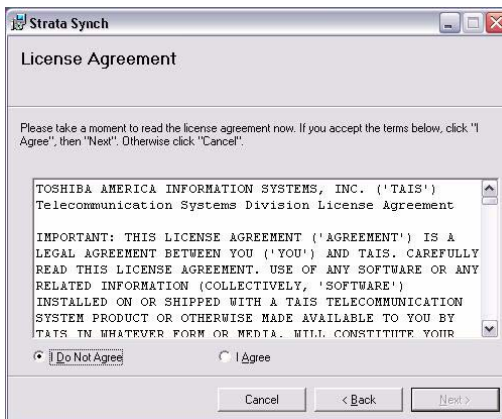
Installing and Launching Strata Synchron

The Strata Synchron file (StrataSych_V1.2_Setup.zip) is a small file that must be run on a PC with Windows XP, 2000, or 2003 which has network access to the Active Directory Server. The Strata Synchron file is downloaded as a zip file.

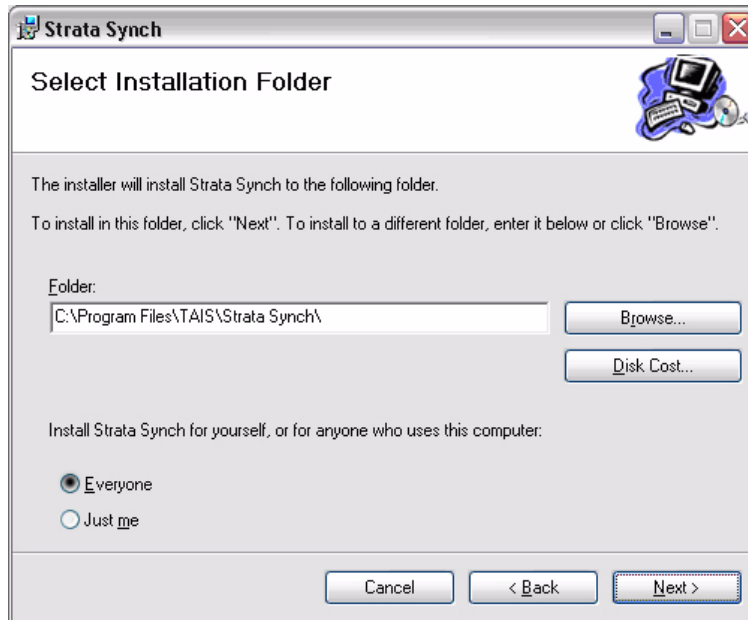
1. After extracting the file, double-click the **StrataSynchron1_2.exe** file. The setup wizard displays as shown.



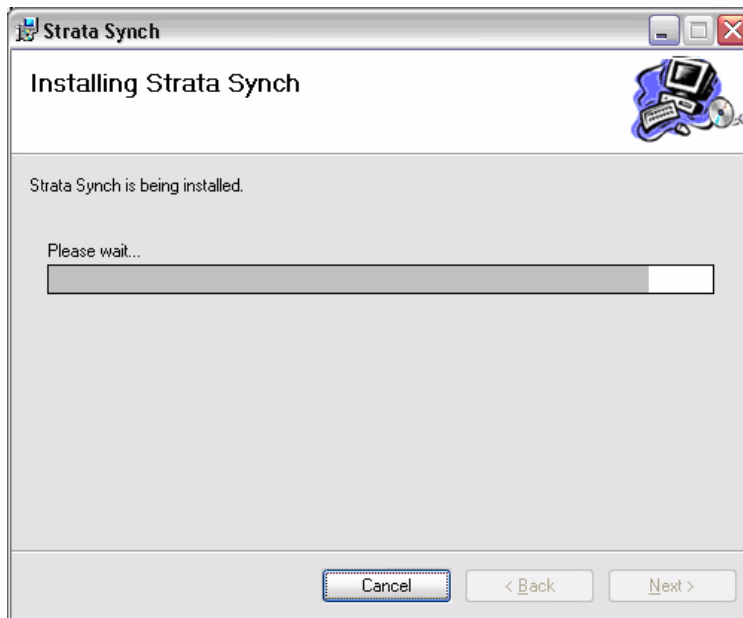
2. Click **Next**.
3. The License Agreement Dialog opens. Read the license agreement, click to select **I agree**, then click **Next**.



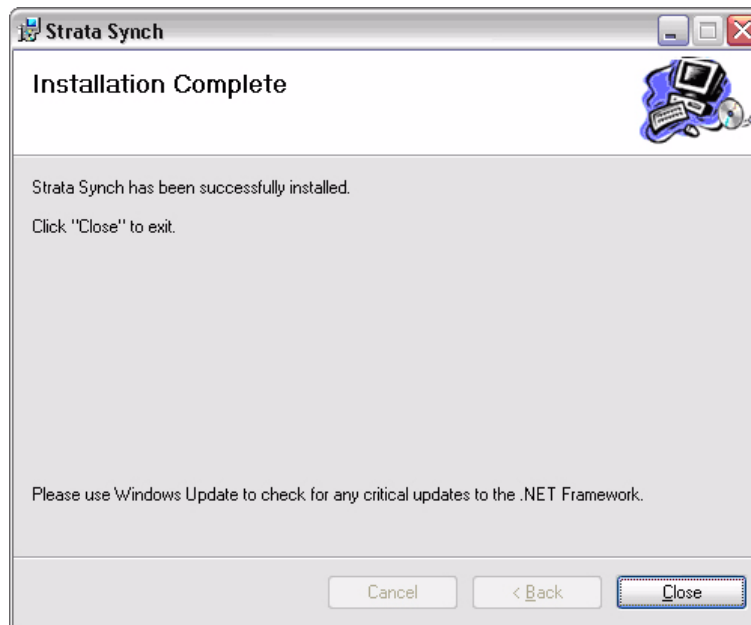
4. In the Select Installation Folder screen accept the default parameters and click **Next**.



5. In the Confirm Installation dialog click **Next**.



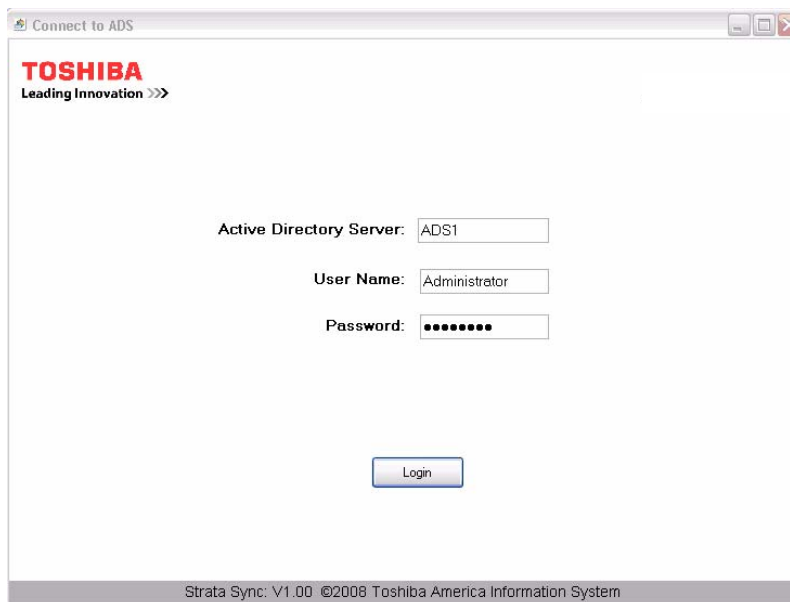
- When the installation is complete click the **Close** button.



- Check for critical updates from Microsoft for .NET Framework.

Launch Strata Synch and Login to ADS:

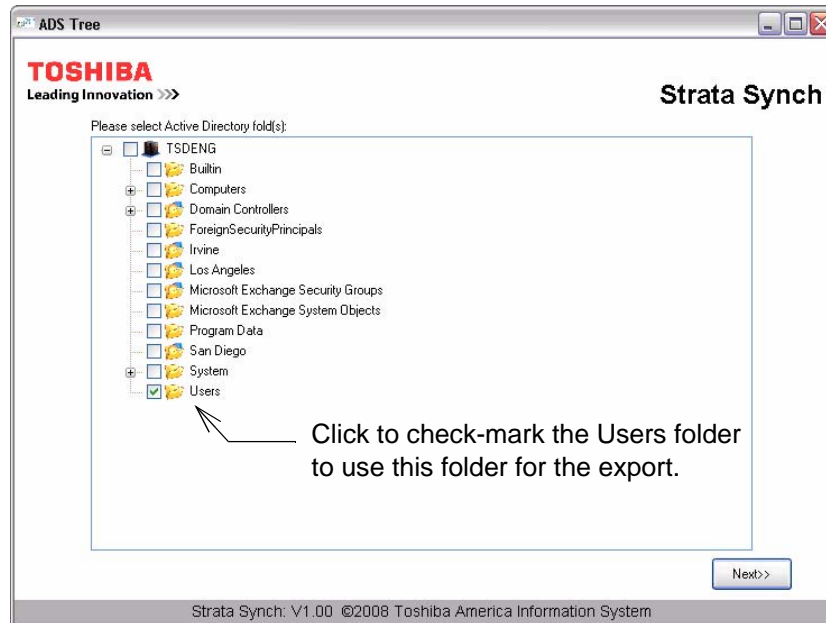
- Click on **Start > Programs > Strata Synch > Strata Synch**.
- The login screen shown here appears. Type in either the host name or the IP Address of the Active Directory Server in the Active Directory Server field.



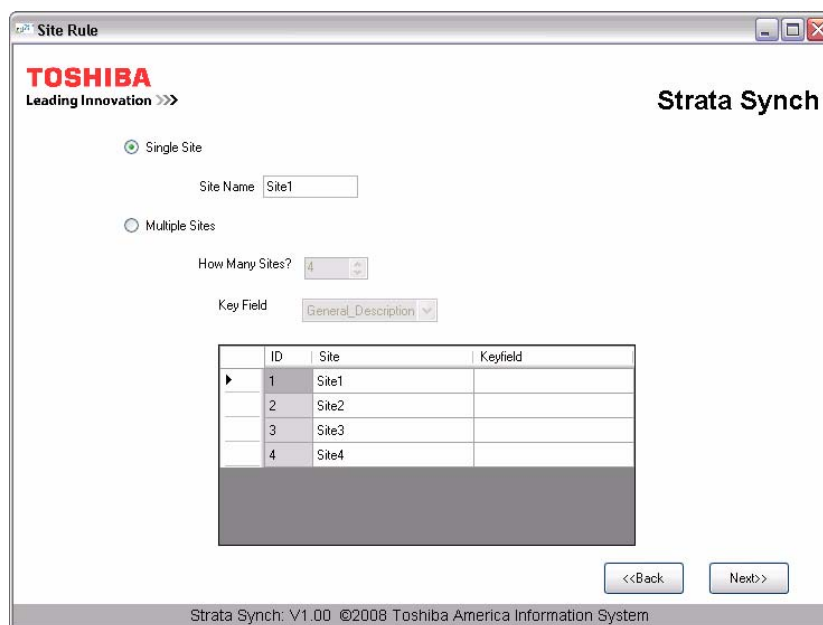
- Type in a user name that has Administrative privileges to the Active Directory Server.
- Type in the password for that user name.

Example 1

1. After a successful login, Strata Synch connects to the Active Directory Server and displays a real-time view of all the folders or organizational units from the Active Directory Users and Computers screen as shown here. From this screen, the technician or Network Administrator can select multiple folders from which to export users. From our previous case example where there is only one CIX system and all the users are stored in the default users folder, the technician can simply select the Users folder.



2. Click the **Next** button and the site configuration dialogue box appears. Because our first example is for a single node CIX system, select the default single site as shown here. The **Site Name** field value is user configurable. The value for this field is used for the file name of the export file.



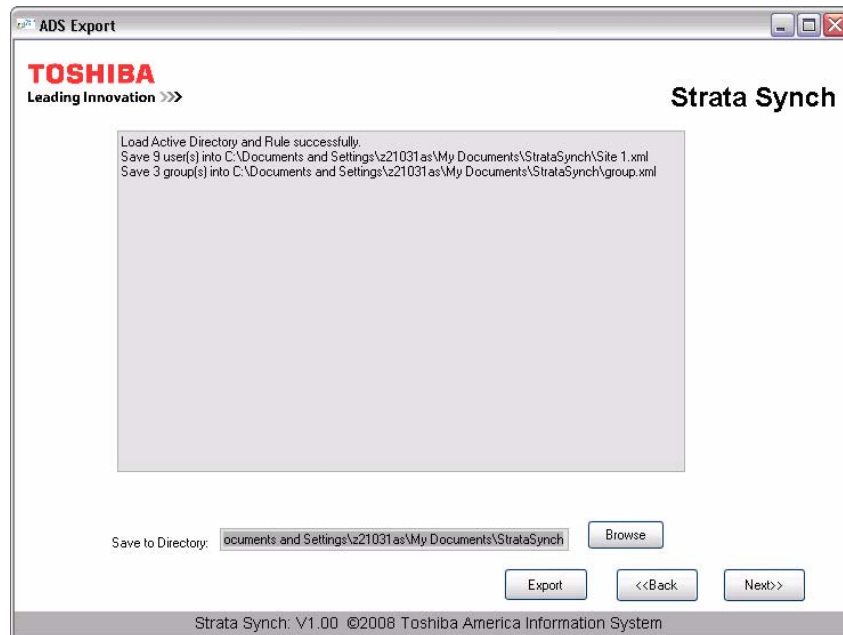
3. Click **Next** and the dialog box as shown here displays. This screen shows that the tool is ready to start exporting all the users Strata Synch found in the default Users folder in ADS.
4. Enter the directory path or click the **Browse** button to select the directory to which to export the users.
5. Click **Export**.



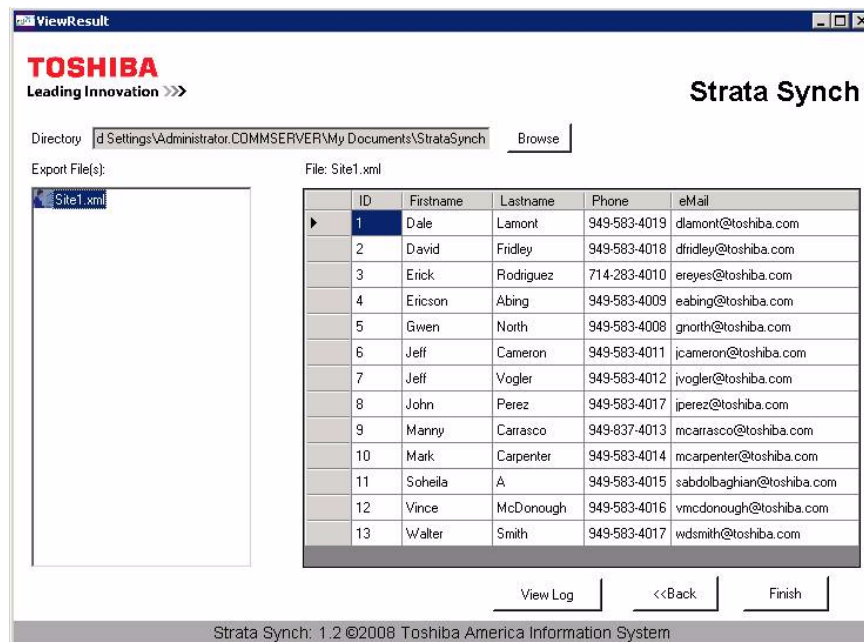
6. Once **Export** is pressed, the export process begins as shown in these figures.



The File Export Log displays as shown.

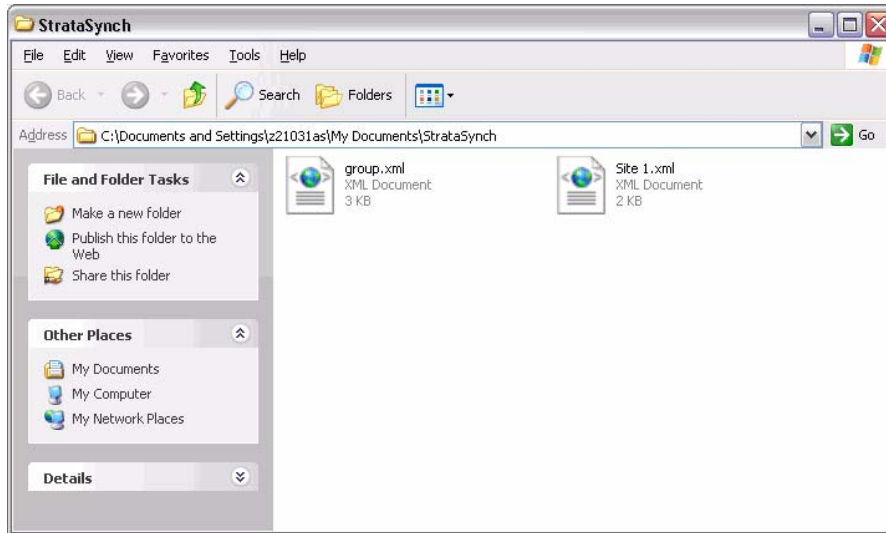


7. When the export process is finished, the log screen shows how many users were exported as well as how many groups were exported. The export file (Site1.xml) is the name entered in the **Site Name** field in Step 2.
8. Click **Next** and the window as shown is displayed.



9. Selecting the Site1.xml displays all of the users exported to that file.
10. The files are saved by default to a folder in: C:\Documents and Settings\(\user_name)\My Documents\Strata Synch.

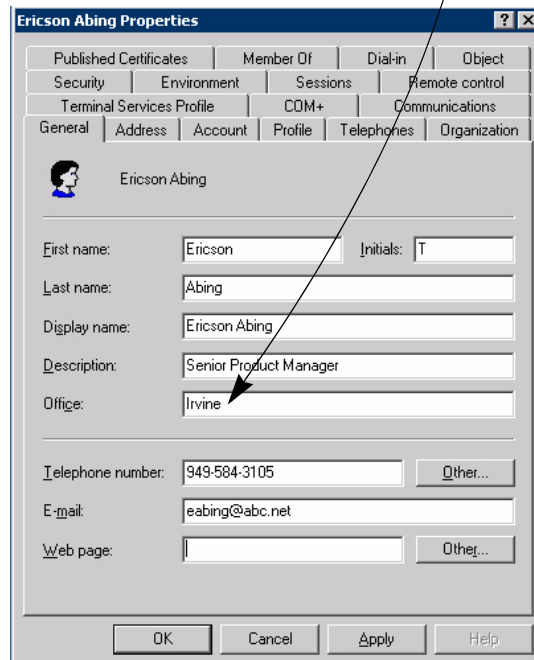
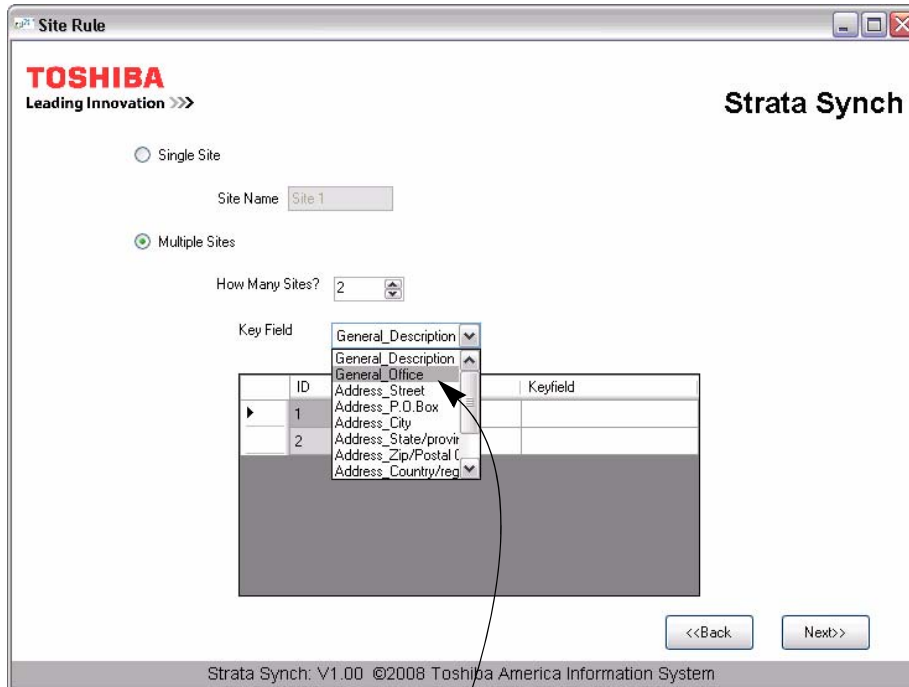
11. Click **Finish** to close the Strata Synchron program. The XML files that were created are now saved to the folder as shown here.



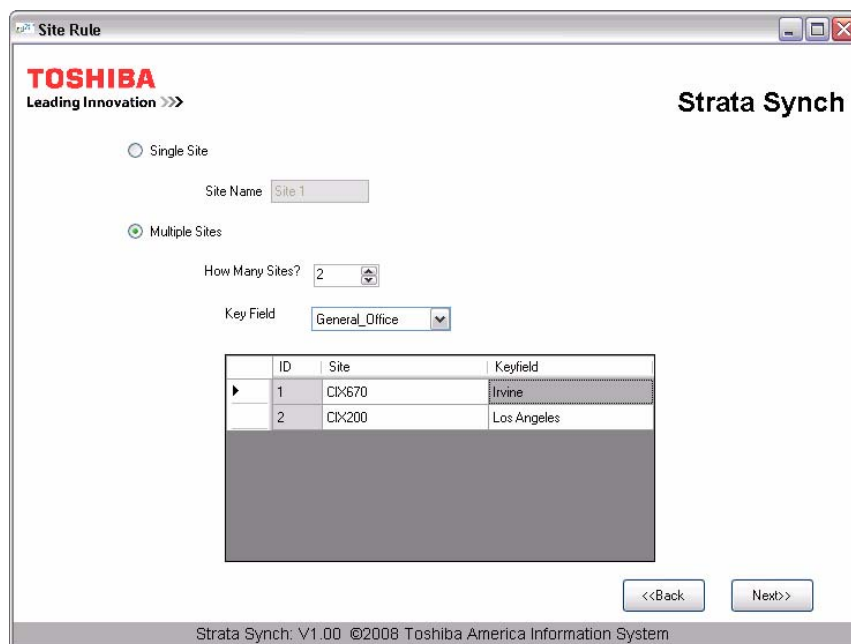
Example 2 – Multiple Strata CIX Nodes

Example 2 is more complex than Example 1 because Strata Synch needs to be told how to filter users belonging to different CIX nodes but are all in the same default Users folder. In order for Example 2 to work properly, the Administrator has to put a tag on each user that is exported to the CIX system. The tag, as shown here, is the entry in the User's property window, General tab, **Office** field.

1. For multi-node CIX installations, click on the **Multiple Sites** radio button as shown here.



2. Enter the number of sites. For our example, chose two sites. The key field value allows the technician or Network Administrator to choose which field in the Users property window in ADS to use as the tag filter. For our example, we will use the **Office** field in the General tab of the User's property window in Active Directory Services.
3. This figure shows how the Office field is mapped to the Office field in the General tab (General_Office) of the User's property window.
4. The box that shows the Site names, Site1 and Site2 are default names but is user configurable. For example, a more meaningful name would be CIX670 and CIX200 or Irvine and Los Angeles. The name chosen will be the exported file name for each individual node as shown here.



5. The Key field in the figure above is the match word criteria (tag) that Strata Synch uses to determine which users belong in the Irvine node and which users belong in the Los Angeles node.
6. The key field must be input manually and must match exactly with what the Network Administrator typed in the **Office** field of the **General** tab in the User's property window.

7. Click **Next** to start the Export process.



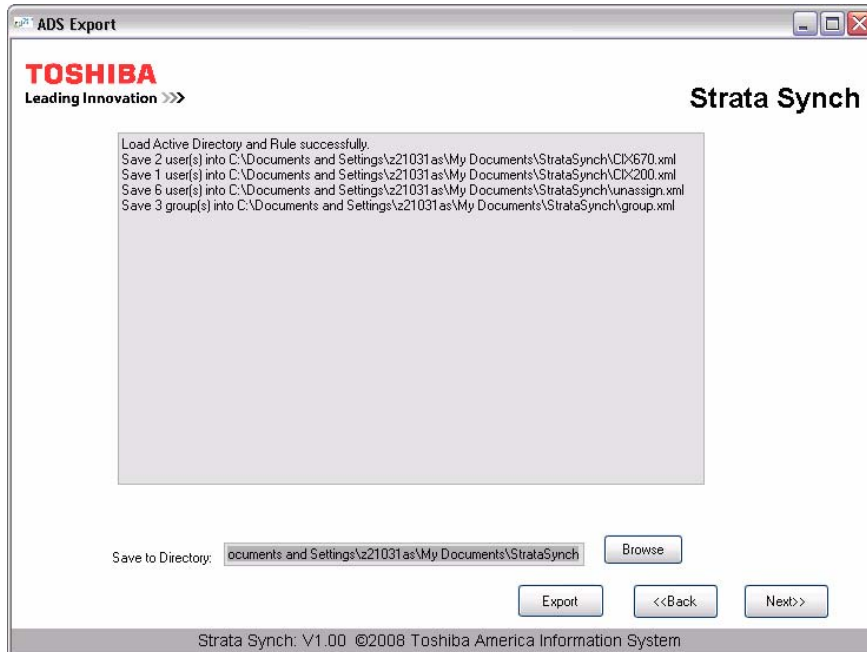
Network eManager®

8. Click **Export** to start the export process.



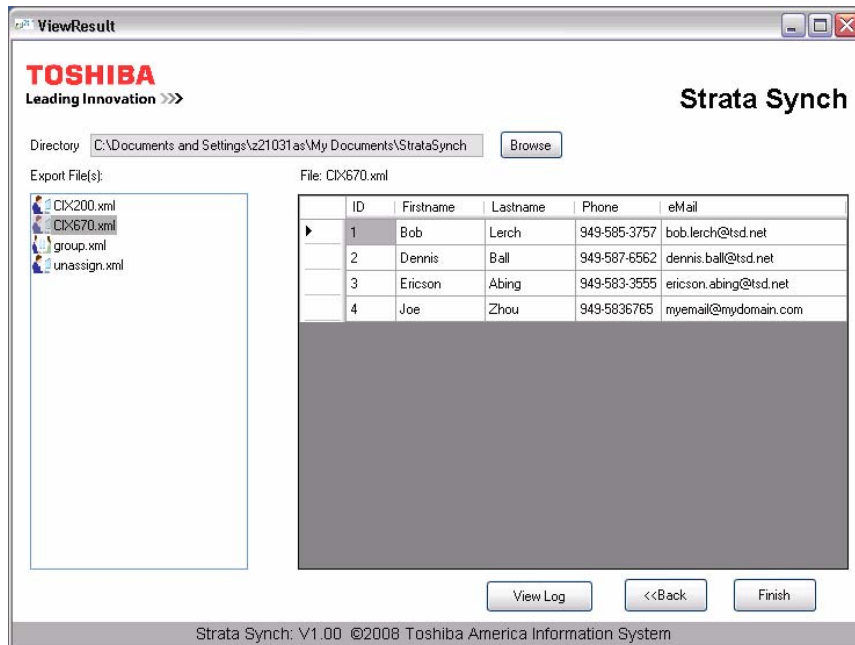
Export Progress Display

- When the export process is finished, the log screen shows how many users were exported per site as well as how many groups were exported. Notice that the file names are CIX670.XML, CIX200.XML, Unassign.XML and Group.XML.



- The Unassigned.XML file shows all the users that did not match the criteria for either Irvine or Los Angeles. This means that these users either had nothing entered in the General_Office field, or the value does not match the criteria.
- The Group.XML file shows all of the groups found in the ADS. These groups can potentially be used for eMail distribution groups.

12. Selecting either the CIX670.xml or CIX200.xml displays all of the users exported to that file.



13. The files are saved by default to a folder in: C:\Documents and Settings\user\My Documents\Strata Synchronizer.

14. Click **Finish** to close the application.

Import User Data to Network eManager

As described previously, Strata Synchronizer is used for gathering station user information from the ADS, formatting it, and saving that information in an XML file. This section describes how to import the XML files into Network eManager.

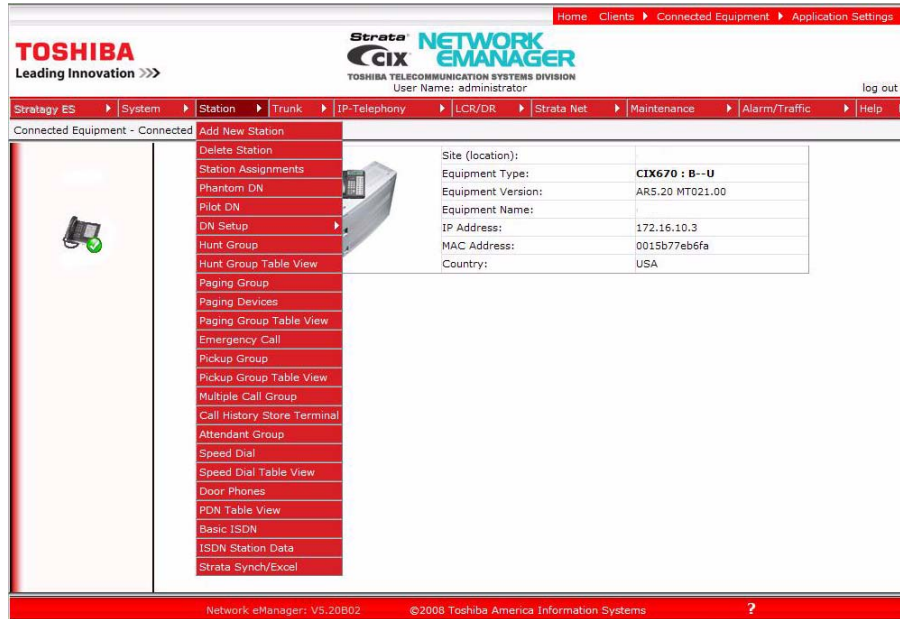
Important! You must be logged into Network eManager as Administrator for the Active Directory feature to appear under the Stations menu.

Before using Network eManager:

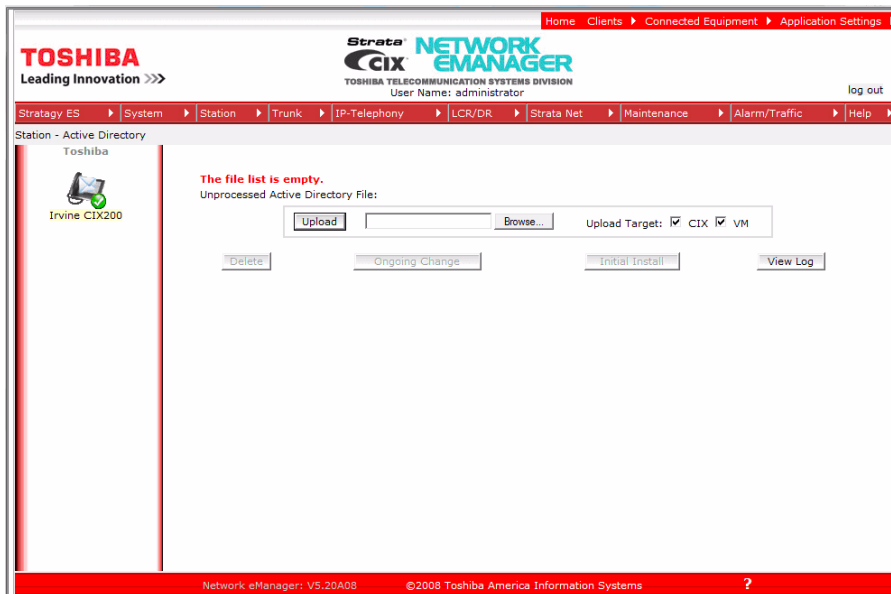
1. Login to Strata Synchronizer.
2. Create the XML files.

The following process shows how to upload the XML file, import the file into Network eManager, and create the station assignments.

1. Launch Network eManager (version R520A08b or higher). On the main menu screen select: **Station > Strata Synch/Excel.**

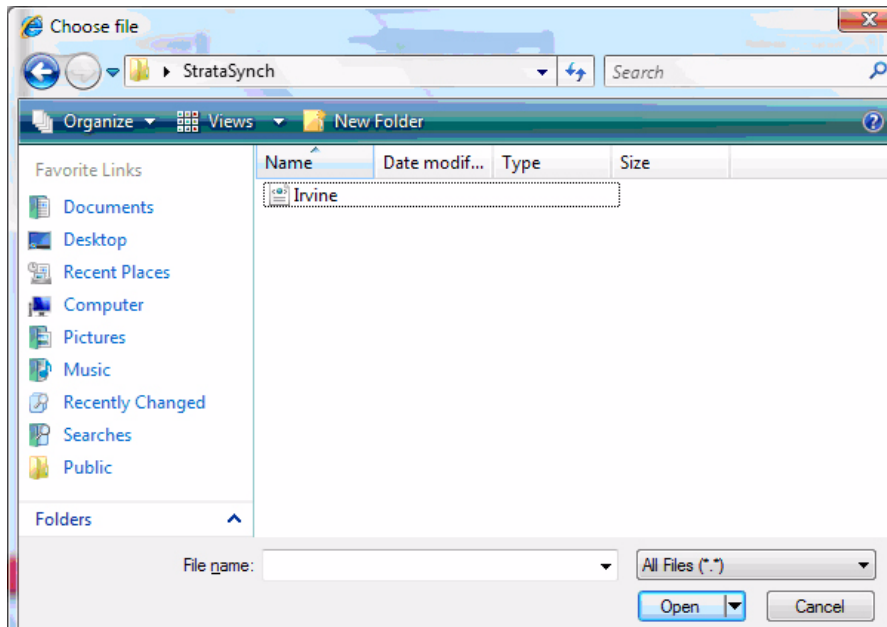


2. The Active Directory window opens. The Upload Target, by default, automatically checks both the CIX and voice mail boxes, indicating that Strata Synch will populate both the Strata CIX system and the Strategy voice mail system.



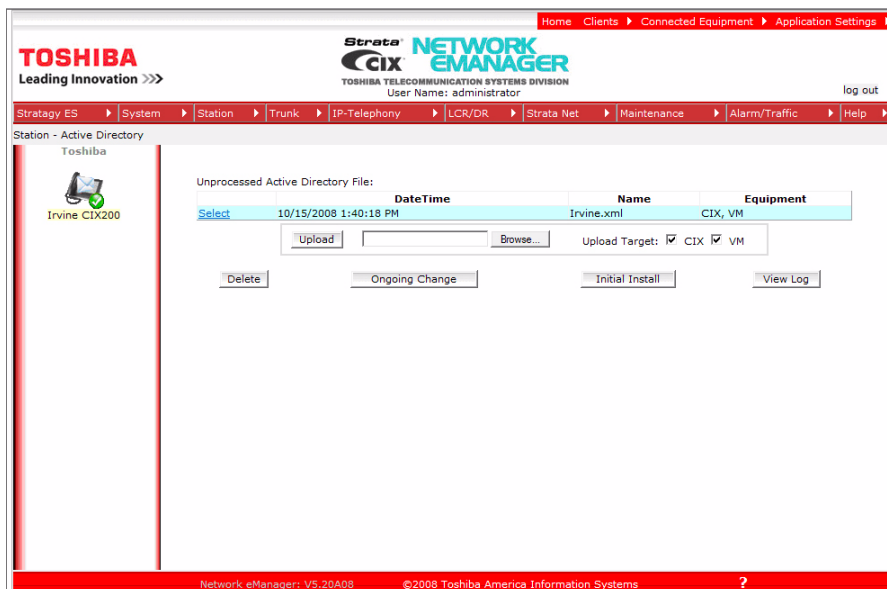
Note If you have connected to a CIX system without voicemail, only the CIX check box is shown.

- Click **Browse** to locate the XML file Strata Synch created earlier. When the file is located click **Open**. The Choose file dialog box opens.



In the example shown here, Irvine.xml file is selected. Highlight the file you wish to use then click the **Open** button. Group.xml is the voicemail group.

- The selected XML file displays on screen. Click **Upload**. This copies the XML file from the target directory into the Network eManager PC to be processed.



With a file uploaded the following functions are available:

- **Delete** – Deletes the uploaded XML file.
- **Ongoing Change** – see “Ongoing Change” later in this section.
- **Initial Install** – Used to import the first file into the system database. This function allows the technician to load all of the station data without the need to manually enter all the station names into the CIX system database.

Note Strata Synch assumes that there are no users in the system database, not even the default extensions created on first power-up. If there are any station cards in the system during the first power-up and the CIX system creates the default extensions, they must be removed so the resources can be freed from the xIPU cards to be used by the Strata Synch application. Do not use the Strata Synch application on a Strata CIX system that already has an existing database.

If this is a **new installation** (no system data saved) click the **Initial Install** button.

Note If using multiple XML files:

1. Select one XML then, select **Initial Install**.
2. Select the next XML file and select **Ongoing Change**.

- Clicking **Initial Install** displays the screen shown here. Notice that the XML file has been parsed and Network eManager displays the following information extracted from the XML file:
- Telephone number
- First Name
- Last Name
- eMail Address



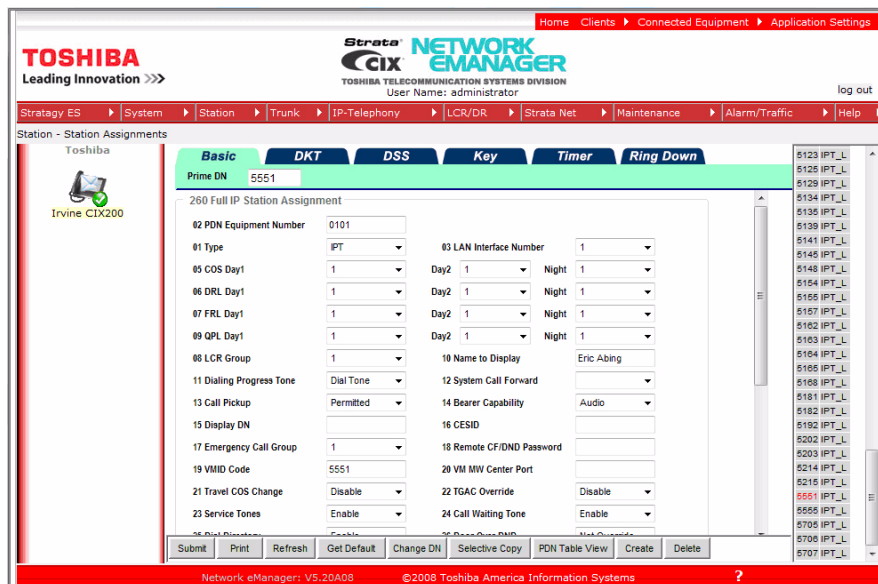
When the XML file has been parsed, the technician can select the station type of each DN. By default, all the extensions are created as DKT-type. Select the type of phone all of the extensions by clicking on the drop-down box to select the correct phone type and then clicking the **Set All Phones Type to** command. In the example given above the two extensions were set to be IPTs.

By default, Network eManager builds the stations using the first available xIPU with open resources to build the stations. Station cards are found by scanning the system cabinet card slots from left to right and from the top down. For example, it starts with Cabinet 1 and looks for a card from Slot 1 to Slot 8. Then it goes to Cabinet 2 and performs the same routine until all the cabinets have been checked.

If the technician wants to specify a particular xIPU card for an IPT extension, the Equipment Number (Cabinet # and Slot #) must be specified in the PDN Equipment Number field for that DN.

When you are satisfied that all of the Phone Types and PDN Equipment Numbers are set, click **Start**.

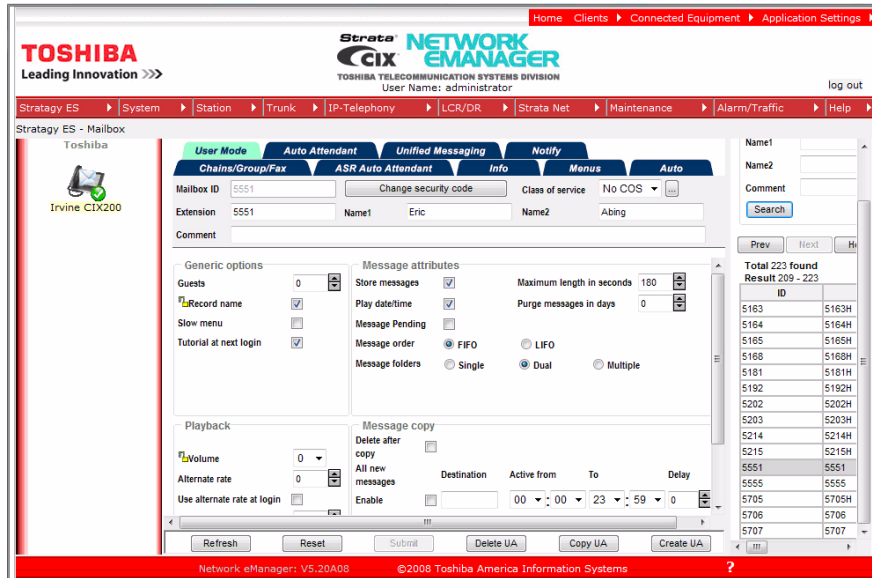
Network eManager starts to process the XML file and begins building the extensions. When completed, Network eManager displays the number of users created as shown here.



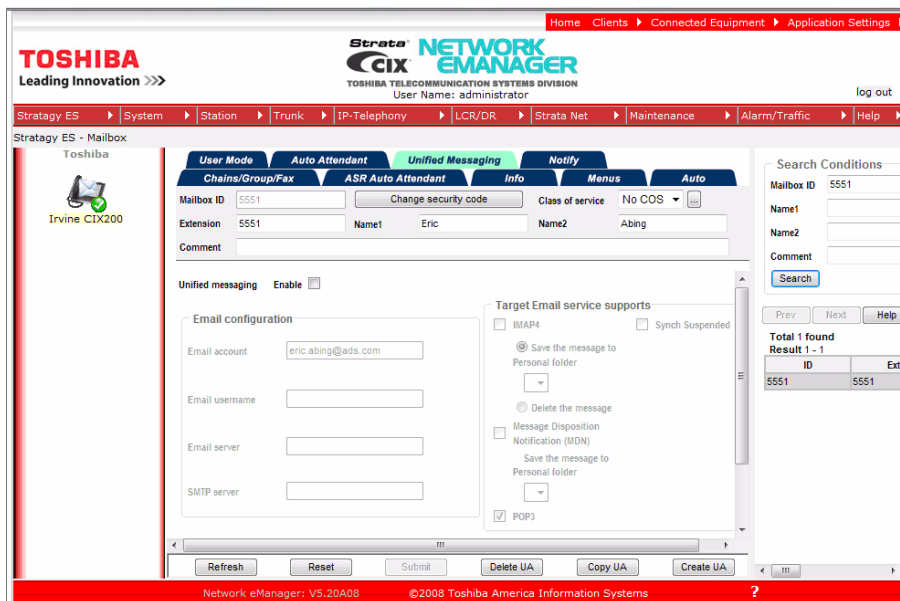
Network eManager®

The figure shows that extension 5551 has been built on an LIPU card. Notice that field #10 [Name to Display] has been populated with the correct name and field #19 [VMID Code] has been populated to match that of the extension.

Strata Synch also builds a corresponding mailbox by default (uncheck the voice mailbox to create stations without mailboxes). Notice that in this example, a mailbox has been created for extension 5551, and that Name1 and Name 2 have been populated.



Strata Synch also populates the eMail account field in the voice mailbox if it finds a corresponding email address from the imported XML file.

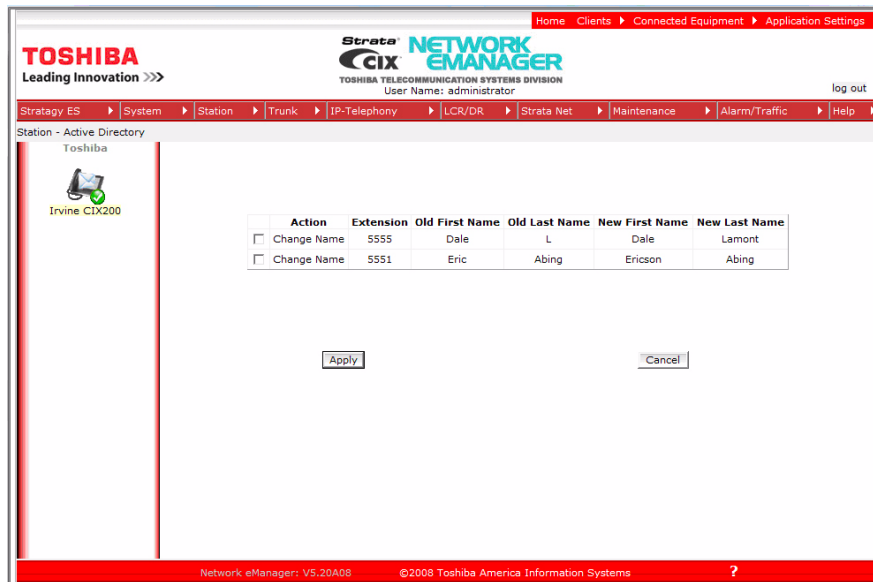


Ongoing Change

An Ongoing Change is the process for adding, deleting, or changing stations after the initial install. After an initial install has been performed, an image of the database is created on the Network eManager PC. This image is used as the comparison when adds, moves and changes are executed. The **Ongoing Change** button is only available after a successful initial install.

Note Strata Synch cannot verify that an XML file is valid for a specific CIX system before it is uploaded to that system. You must ensure that the correct XML to be used for the ongoing change is selected.

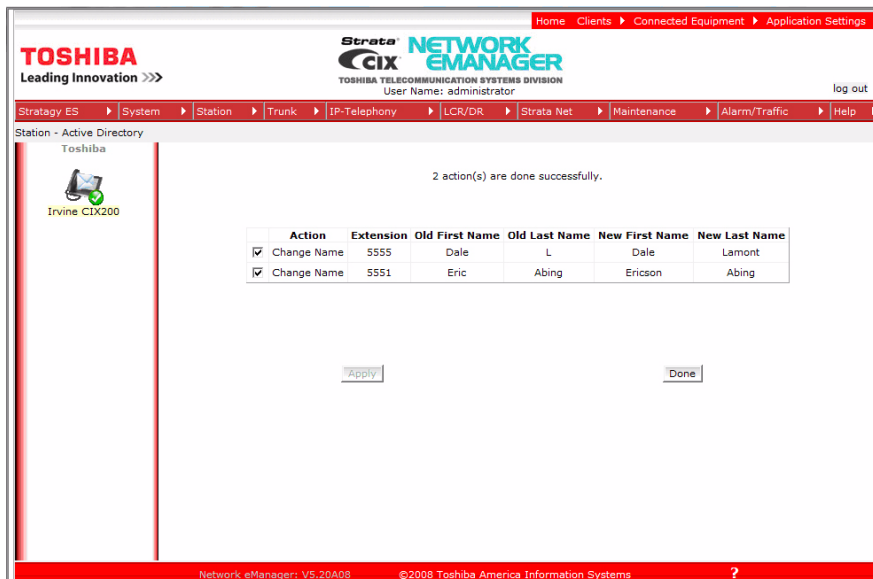
In the example, shown here, the last name for extension #5555 is changed from 'L' to 'Lemon'. The first name for extension #5551 is changed from 'Eric' to 'Ericson'.



The uploaded 'ongoing change' information is compared to the 'initial install' image. The differences are flagged and shown on this screen.

The changes are not made until you check mark the box and click the **Apply** button.

This example shows both items were selected, the **Apply** button was clicked, and Network eManager successfully applied both changes.

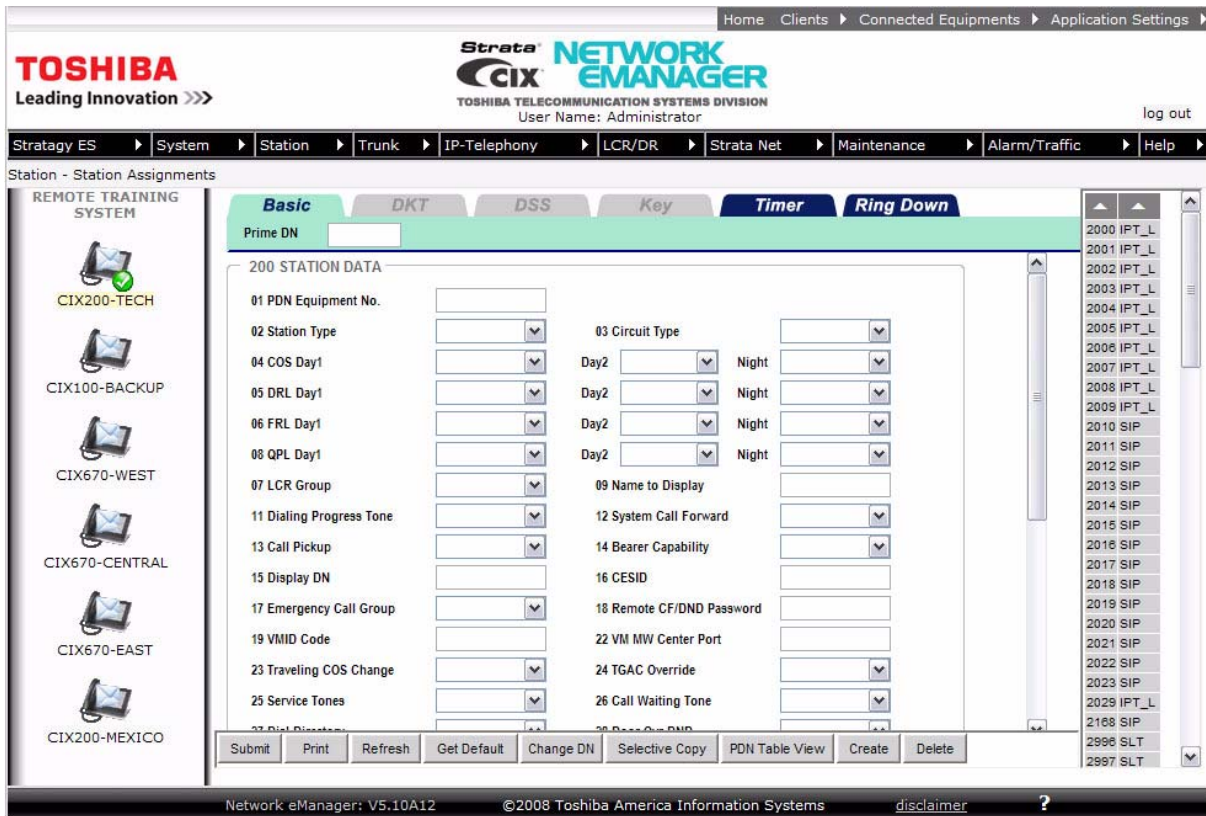


The View Log screen displays all the actions that were performed using the Strata Synch application.



Access Multiple Systems

A powerful feature of Network eManager is the ability to access the programming data on multiple CIX systems without having to log-off of one system and then log-on to the next system. In this example Network eManager is currently viewing the Station programming data for the CIX200-TECH switch. Program 200 displays the familiar list of stations on the right with the details of each station in the work area.



By simply clicking on a different system in the Node Selection Panel, the Administrator can switch from viewing the Station Programming data at one node to viewing the data from another node without having to log out.

Node Selection Panel

The Node Selection Panel provides the following features:

- Provides a list of the group member CIX systems and CIX/SES pairs (nodes).
- Allows the user to show the data from another node on the current page by simply clicking on the node.
- Indicates Active Node with a distinct glyph. The Active Node is the CIX or CIX/SES pair that is currently accessed by the page.

Copy To Multiple Equipment

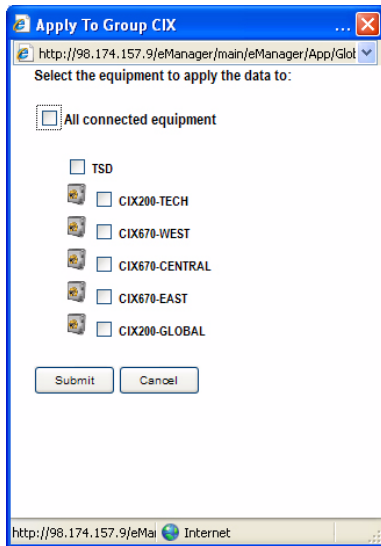
A powerful feature of Network eManager is the ability to selectively copy data from one CIX system to multiple CIX systems. For example, to copy selected fields in Program 260, Full IP Station Assignments:

1. Click on the **DN** to select the fields to copy and click on **Selective Copy**.
2. Click on all the fields to be copied. For example; COS Day1, DRL Day1, FRL Day1, QPL Day1 and LCR Group. The 'Highlight All' button is still available to select all values for a copy.

3. Click the **'Select Copy To PDN(s)'** button.
4. Notice that PDNs from different systems are visible. Select all the PDNs the selected fields will be copied to.

Apply To Multiple Equipment

Network eManager allows the user to modify programming and Apply To multiple CIX systems. When you click the **Apply To** button (not seen in all commands), the Apply To Group CIX dialogue box appears (right). From the dialogue box the user can select which CIX systems the changes are applied to.



When the **Submit** button is clicked the changed program values propagates to all of the connected systems. There is no need to switch back and forth between CIX systems to copy the changed data to different systems.

Back Up Database on Multiple CIX Systems

CIX Data Backup

Network eManager can backup data from multiple systems. This function can save significant time when preparing to update the CIX system software on multiple nodes and when a backup needs to be done on each node. The new database backup method provides extended functionality including:

- Selecting the new software file directly from the user's PC.
- Selecting multiple CIX systems for update and starting the procedure at once without further user interaction during the procedure.

The following actions must be done before the update process can start:

- Locate the new CIX software by CIX system type.
- Decide which CIX systems will be updated - type should match with software.
- Decide for each system whether the new software should be automatically activated after it is uploaded.
- Decide for each system whether the current CIX database should be restored during the new software activation. If yes, Network eManager creates a CIX database backup prior to uploading the new software.

The new CIX Data Backup is under Maintenance > CIX Data Backup. The user can select which systems need to be backed up or can select all of the systems at the site. If any of the systems fail to backup, it will not halt the entire backup operation. The backup procedure continues to run for the other systems.

Update Software on Multiple CIX Systems

The new CIX Software Update is located under Maintenance > CIX Software Update. In the window you have the option of backing up the CIX systems prior to the upgrade. If the user clicks the **Yes** button, the database backup screen is displayed allowing you to select the databases to backup. Once the backup procedure is completed, click the **Browse** button to find the corresponding CIX software update for each CIX system which needs backing-up. The update software must match the corresponding system, otherwise the update procedure will fail. Then click the **Upload file(s) to eManager server** button. Network eManager then copies the update software to a designated folder in the Network eManager server.

When all the CIX software updates have been uploaded press **Start** to complete the process.

Note Network eManager requires the update file you download from the Toshiba FYI website to remain in zip format. **Do not unzip** the update file or the update process will fail.

Create Network DNs in Multiple Systems

Network eManager can automatically build Network DN stations from one system and have it automatically created in the other nodes of a Strata Net network. From the Network eManager configuration screen, click on Strata Net > Network DN Setup > Add New Station.

Note Only one DN can be created across multiple nodes at one time.

In the Add New Station window, fill in the following information:

- User Name
- Phone Type
- Extension

Click **Submit**.

Table Views

Some programs contain supporting tables views. These tables can be accessed from the Program Menu or from the program itself by clicking a button in the command screen. For example, the System Speed Dial Table View can be accessed by clicking System > System Speed Dial Table View, or by clicking System > System Speed Dial, then clicking the **System Speed Dial Table View** button at the bottom of the screen.

Notes

- Depending on the speed of your PC and the size of your database the table may take several minutes to download.
- Once table view displays, you can minimize the screen or send it to the background. It is an independent window that can always be brought back to the front of the screen for reference.

The tables have the following functionality (see Table View example below):

Index	Dialing Code	Number	Name
000	*200	01	02
001	*201		
002	*202		
003	*203		
004	*204		
005	*205		
006	*206		
007	*207		
008	*208		
009	*209		
010	*210		
011	*211		
012	*212		
013	*213		
014	*214		
015	*215		
016	*216		
017	*217		
018	*218		
019	*219		
020	*220		
021	*221		
022	*222		
023	*223		
024	*224		

Navigational controls enable viewing or moving in a table by 25-entry screens. These controls help sort information found in the table or view the table in full. These controls are found as Previous and Next buttons above the header.

If you want to print or analyze the table you can also select All from the Drop down between the Previous and Next buttons to view the entire table in blocks of 25 entries.

In the Navigation Control bar, every button is dynamically activated or deactivated. For example, in the figure above, the Previous button is not active because the view starts with the first record. Submit is also not available because nothing has been changed.

- Sort – You can sort tables by clicking the column header. The direction of the up/down toggles Ascending or Descending sort. The color indicator pointing Up or Down in the Header row indicates the column the sort is performed by.
- Bookmark – You can bookmark a row on some tables by clicking on the row. This enables you to move forward or backward and come back to the original position with no problem.

Note The bookmark function is not provided in tables that have a **Delete** button. Tables that have a **Delete** button also have **Select All** and **Unselect All** buttons.

- Edit/Refresh/Print buttons – You can edit, refresh or print the table by clicking the appropriate buttons at the top of the screen. In some tables the **Edit** button toggles between View Collected Data and Edit.
 - The Edit function works for the Name, Number and Destination columns. Use the **Refresh** button if you add, delete or make changes to table entries in Programs that feed tables or in Guide pages.
 - The Print button enables you to print tables. However, when you click the **Print** button only the part of the table that is displayed on the screen prints. Use the scroll bar to Print beyond what is displayed. It will then automatically print from where the last screen ended.

Network eManager Data Import/Export Features

The enhancements listed below can be used with all Releases of CTX/CIX systems.

These new features can save significant time and effort by exporting data such as station speed dial lists or DID assignments to a file and then importing the file for assignment.

Network eManager DID/DNIS Assignments - Import/Export

This feature allows all DID/DNIS numbers and parameters assigned to one or more Incoming Line Groups (ILG) to be exported as a comma separated value (CSV) file and saved on the Network eManager PC. This file can then be imported and automatically uploaded to another ILG in the same CIX or to a different CIX system.

Download

The system will create a text file. The text is the CSV data. To download DID/DNIS assignments:

1. Display the DID/DNIS Table by clicking Trunk > DID/DNIS Table View.
2. Click Yes in the popup.
3. Click on the **Export** button.
4. A dialog box will open. Select the location to save the file and assign a file name.

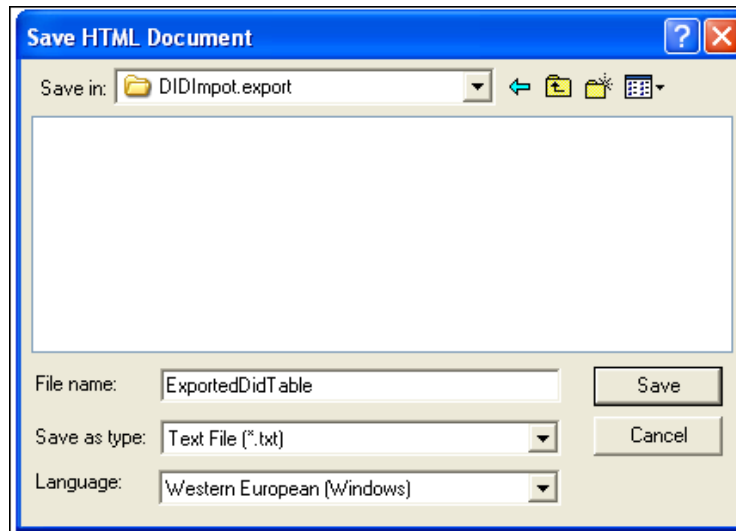
Example

The following is an example of using this process to copy the DID/DNIS numbers from ILG #5 to ILG #7 in the same CIX system. After the DID/DNIS numbers and parameters have been assigned to ILG #5 perform the following:

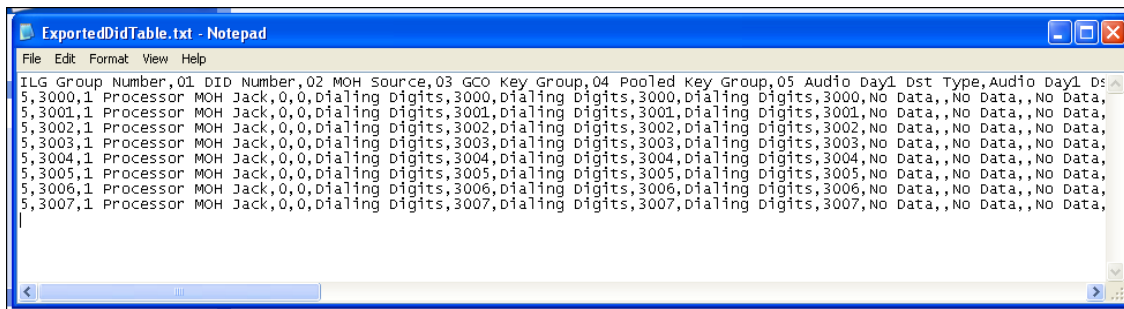
1. Create DID/DNIS numbers and parameters, etc. for ILG Group 5 using the DID/DNIS wizard.
2. Open the DID/DNIS Table View located under Trunk > DID/DNIS Table View. All assignments for DID ILG Group 5 are displayed.
3. At the top of the DID/DNIS Table View screen click on the **Export** button.

ILG Number	DID/DNIS Name	Day Destination	Day 2 Destination	Night Destination	GCO Key	Pool Key	VMID SMDI	VMID DTMF	Tenant Number
5 3000	TOM	3000	3000	3000	0	0	3000	3000	1
5 3001	MARY	3001	3001	3001	0	0	3001	3001	1
5 3002	JANE	3002	3002	3002	0	0	3002	3002	1
5 3003	SALLY	3003	3003	3003	0	0	3003	3003	1
5 3004	FRED	3004	3004	3004	0	0	3004	3004	1
5 3005	LUCY	3005	3005	3005	0	0	3005	3005	1
5 3006	JOE	3006	3006	3006	0	0	3006	3006	1
5 3007	LUNCH ROOM	3007	3007	3007	0	0	3007	3007	1

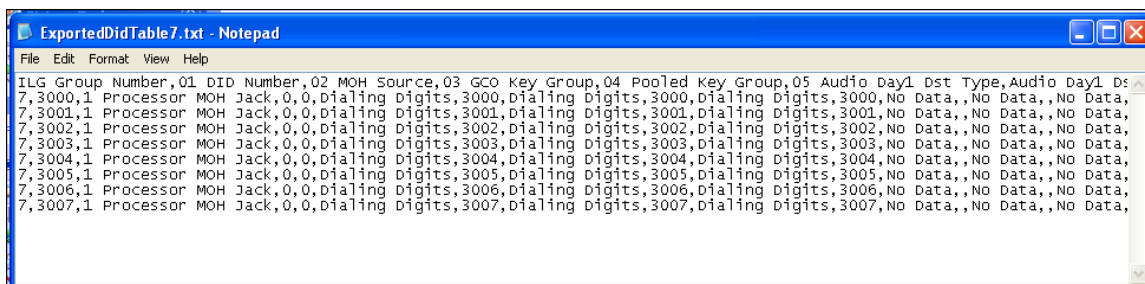
- Select or create the folder where the ILG #5 DID/DNIS assignment file will be saved and then click **Save**. This will save the DID numbers and parameters of ILG #5 as a comma delimited text file.



- Create DID Incoming Line Group ILG #7 in Trunk Programming, Program 304. Assign the number of digits the DID numbers should have in Program 304 -11 (four digits in this example). The number of digits for ILG #7 should be the same as ILG #5.
- After creating DID ILG #7 open the exported ILG #5 DID text file using Windows. This is the file saved in Step 4.



- In the text file, change the ILG number from 5 to 7. Be sure to keep the same comma delimited format intact as shown below, then save the file under a different name.

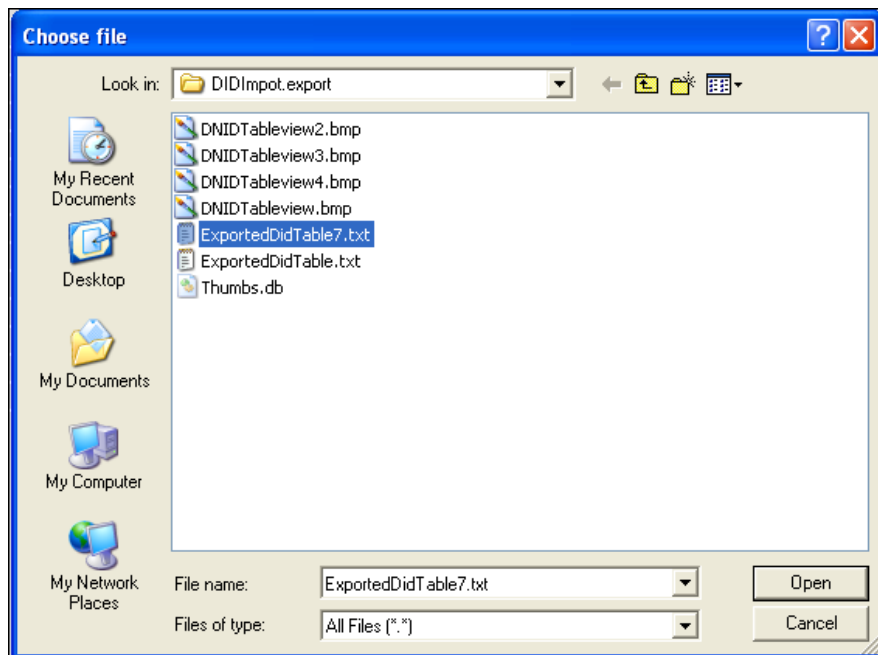


- In Network eManager, open the DID/DNIS Table View located under Trunk > DID/DNIS Table View. All assignments for DID ILG Group 5 are displayed.

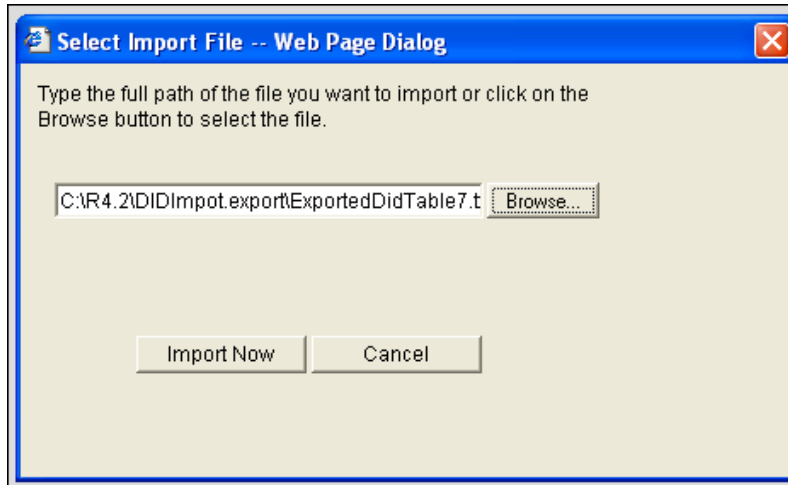
9. On the top of the DID/DNID Table View screen click on the **Import** button.

ILG Number	DID/DNIS Name	Day Destination	Day 2 Destination	Night Destination	GCO Key	Pool Key	VMID SMDI	VMID DTMF	Tenant Number
5 3000	TOM	3000	3000	3000	0	0	3000	3000	1
5 3001	MARY	3001	3001	3001	0	0	3001	3001	1
5 3002	JANE	3002	3002	3002	0	0	3002	3002	1
5 3003	SALLY	3003	3003	3003	0	0	3003	3003	1
5 3004	FRED	3004	3004	3004	0	0	3004	3004	1
5 3005	LUCY	3005	3005	3005	0	0	3005	3005	1
5 3006	JOE	3006	3006	3006	0	0	3006	3006	1
5 3007	LUNCH ROOM	3007	3007	3007	0	0	3007	3007	1

10. In the Choose file dialog box use the **Browse** button to find the text file containing ILG #7 created in Step 7.



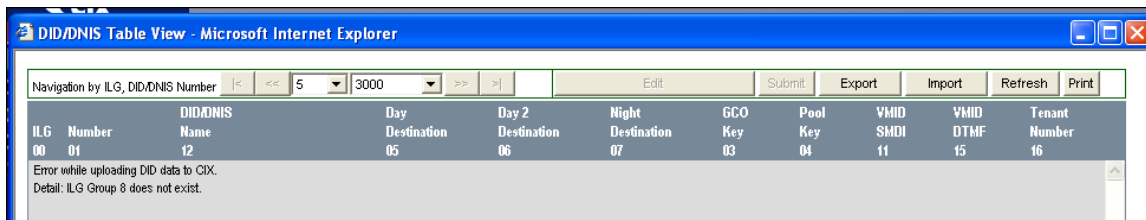
- After selecting the ILG #7 file click on **Open**. The Network eManager Select Import File dialog box will open. Click on **Import Now**. Network eManager will import and upload the ILG #7 data to the CIX.



- In Network eManager, open the DID/DNIS Table View, select Trunk > DID/DNIS Table View and click **Refresh**. All assignments for DID ILG Group 5 and 7 are displayed. This means that all of ILG #5 DID assignments have been applied to ILG #7 in the CIX database.

ILG Number	DID/DNIS Name	Day Destination	Day 2 Destination	Night Destination	GCO Key	Pool Key	VMID SMDI	VMID DTMF	Tenant Number
5 3000	TOM	3000	3000	3000	0	0	3000	3000	1
5 3001	MARY	3001	3001	3001	0	0	3001	3001	1
5 3002	JANE	3002	3002	3002	0	0	3002	3002	1
5 3003	SALLY	3003	3003	3003	0	0	3003	3003	1
5 3004	FRED	3004	3004	3004	0	0	3004	3004	1
5 3005	LUCY	3005	3005	3005	0	0	3005	3005	1
5 3006	JOE	3006	3006	3006	0	0	3006	3006	1
5 3007	LUNCH ROOM	3007	3007	3007	0	0	3007	3007	1
7 3000	TOM	3000	3000	3000	0	0	3000	3000	1
7 3001	MARY	3001	3001	3001	0	0	3001	3001	1
7 3002	JANE	3002	3002	3002	0	0	3002	3002	1
7 3003	SALLY	3003	3003	3003	0	0	3003	3003	1
7 3004	FRED	3004	3004	3004	0	0	3004	3004	1
7 3005	LUCY	3005	3005	3005	0	0	3005	3005	1
7 3006	JOE	3006	3006	3006	0	0	3006	3006	1
7 3007	LUNCH ROOM	3007	3007	3007	0	0	3007	3007	1

- If you failed to create ILG #7 in Step 5 with the correct number of DID digits in Program 309 -11 the following error message will be presented on the Table View screen.



Network eManager Station Directory - Import/Export

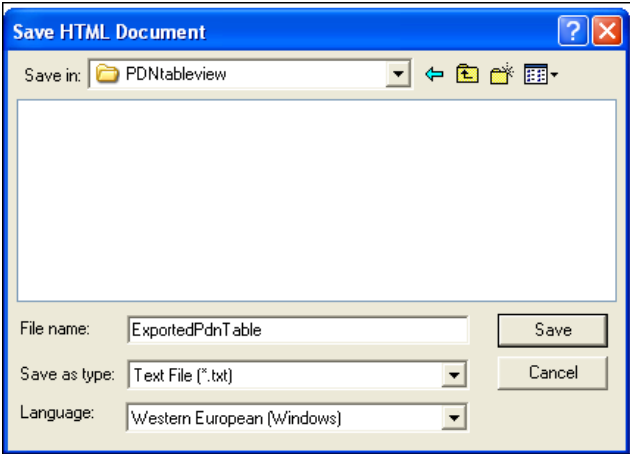
This feature allows CIX station assignments such as user names and telephone numbers to be exported to a comma separated value (CSV) text file. This file can be imported by third party software to create dialing directories. Station Assignments Table View is displayed in Network eManager, then exported as a CSV text file to the Network eManager computer.

Station Directory Information Example

1. In Network eManager select Station > Station Assignments > PDN Table button, or go directly to the table view by selecting Station > PDN Table View.
2. Click Yes in the popup. All station assignments are displayed in a table.
3. Click the **Export** button on the top of the screen.

Equipment			PrimeDN	Telephone LCD Name	VMID	COS			DRL			FRL			LCR Grp	SYS CF	NET COS	Sta. Spd	Tenant	Network Calling Num
Number	Type	Used As				D1	D2	N	D1	D2	N	D1	D2	N						
010101	DKT	Extension	200	MARY	19	1	1	1	1	1	1	1	1	1	0	1	10	1	9491234567	
010102	DKT	Extension	201	TOM		1	1	1	1	1	1	1	1	1	0	1	0	1	9498901234	
010103	DKT	Extension	202	SUE		1	1	1	1	1	1	1	1	1	0	1	0	1	9498888888	
010104	DKT	Extension	203	JOE		1	1	1	1	1	1	1	1	1	0	1	0	1	9499999999	
010105	DKT	Extension	204	ANN		1	1	1	1	1	1	1	1	1	0	1	0	1	9490000000	
010106	DKT	Extension	205	FRANK		1	1	1	1	1	1	1	1	1	0	1	0	1	9495832205	
010107	DKT	Extension	206	LOBBY		1	1	1	1	1	1	1	1	1	0	1	10	1	9495832206	
010108	DKT	Extension	207	LUNCH ROOM		1	1	1	1	1	1	1	1	1	0	1	0	1	9495832207	

4. From the dialog box that appears after clicking **Export**, name the file and select or create the folder it should be downloaded to.



Network eManager®

5. Open the exported text file.

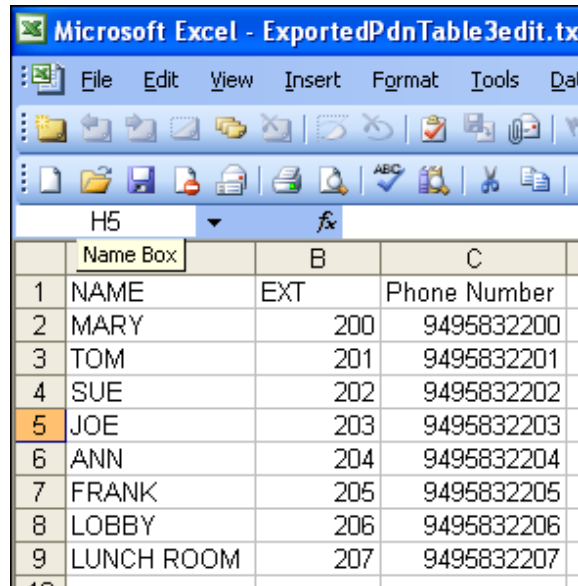
```
ExportedPdnTable3.txt - Notepad
File Edit Format View Help
Prime DN,Type,Used As,User Name,Voice Mail ID,Equipment Location,COS Day1,CO
200,DKT,Extension,MARY,,010101,1,1,1,1,1,1,1,1,1,1,0,1,10,1,9495832200
201,DKT,Extension,TOM,,010102,1,1,1,1,1,1,1,1,1,1,0,1,0,1,9495832201
202,DKT,Extension,SUE,,010103,1,1,1,1,1,1,1,1,1,1,0,1,0,1,9495832202
203,DKT,Extension,JOE,,010104,1,1,1,1,1,1,1,1,1,1,0,1,0,1,9495832203
204,DKT,Extension,ANN,,010105,1,1,1,1,1,1,1,1,1,1,0,1,0,1,9495832204
205,DKT,Extension,FRANK,,010106,1,1,1,1,1,1,1,1,1,1,0,1,0,1,9495832205
206,DKT,Extension,LOBBY,,010107,1,1,1,1,1,1,1,1,1,1,0,1,10,1,9495832206
207,DKT,Extension,LUNCH ROOM,,010108,1,1,1,1,1,1,1,1,1,1,1,1,1,0,1,0,1,9495832207
```

6. One application for this file is to edit the unwanted fields out to allow third party software to create a directory. The format of the edited file may need to vary depending on the third party software that creates the directory. The file below has all table view fields deleted except:

- Extension Number (PRG 200 Prime DN)
- Extension Name (PRG 200-09)
- Network Calling Number (PRG 200-46)

```
ExportedPdnTable3edit.txt - Notepad
File Edit Format View Help
200, MARY, 9495832200
201, TOM, 9495832201
202, SUE, 9495832202
203, JOE, 9495832203
204, ANN, 9495832204
205, FRANK, 9495832205
206, LOBBY, 9495832206
207, LUNCH ROOM, 9495832207
```

The edited text file can be opened with Microsoft Excel as a comma delimited text file and columns can be rearranged as needed.



	Name	EXT	Phone Number
2	MARY	200	9495832200
3	TOM	201	9495832201
4	SUE	202	9495832202
5	JOE	203	9495832203
6	ANN	204	9495832204
7	FRANK	205	9495832205
8	LOBBY	206	9495832206
9	LUNCH ROOM	207	9495832207

Microsoft Excel can be used to format the directory appearance.

Name	Extension	Tel. Number
ANN	Ext. 204	9495832204
FRANK	Ext. 205	9495832205
JOE	Ext. 203	9495832203
LOBBY	Ext. 206	9495832206
LUNCH ROOM	Ext. 207	9495832207
MARY	Ext. 200	9495832200
SUE	Ext. 202	9495832202
TOM	Ext. 201	9495832201

System Speed Dial Export/Import

This feature allows station and system speed dial names and numbers to be exported and imported. The exported speed dial data is saved into a comma separated value (CSV) text file which can be edited using any text editor such as Word Pad. The exported file can be imported by other CIX systems to save installation time.

The exported and imported speed dial file format is shown below. The exported file header and line format must not be change or an error message will occur when trying to import a file. Commas are always required between fields as shown.

- System Speed Dial File Format:
Speed Dial Index (01 ~ 799),Speed Dial Number,Name

- Station Speed Dial Format:
Prime DN, Speed Dial Index (01 ~ 99), Speed Dial Number, Name

You can edit exported speed dial files to add more speed dial names and numbers, change formats between system and station, and change Prime DNs. Editing allows:

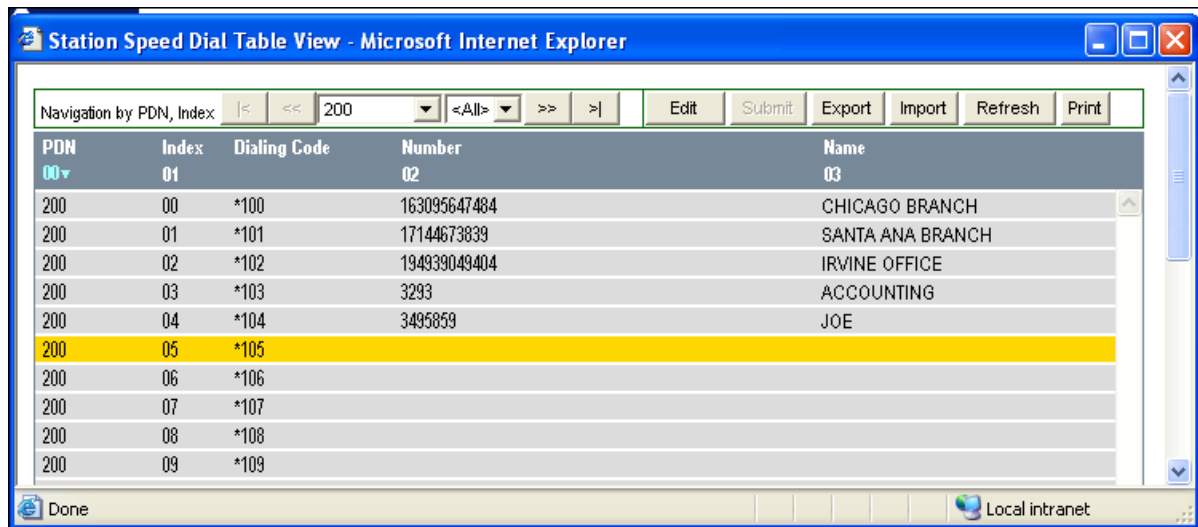
- One station's speed dial names/numbers can be edited and imported into another station's speed dial bins.
- A station's speed dial names/numbers can be edited and imported into CIX system Speed Dial.
- System speed dial names/numbers can be imported into another CIX system.
- System speed dial names/numbers can be edited and imported into station speed dial bins.
- System and Station speed dial files can be used by third party software to create dialing directories.

Station Speed Dial Export/Import

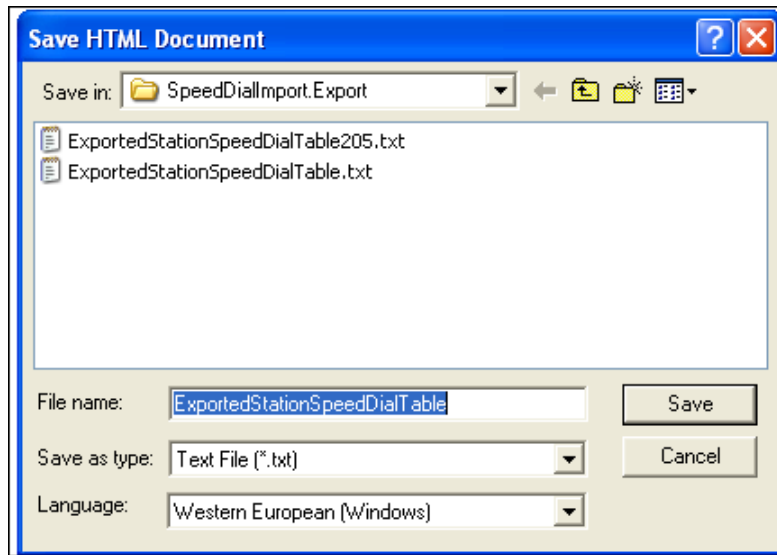
This feature allows all station speed dial numbers of one station to be exported and saved as a file on the eManager PC. The assignments in this file can then be imported and automatically uploaded to another station speed dial bin in the same CIX or into System Speed dial.

Example: Assign station 200 speed dial numbers to station 205 in the same CIX system.

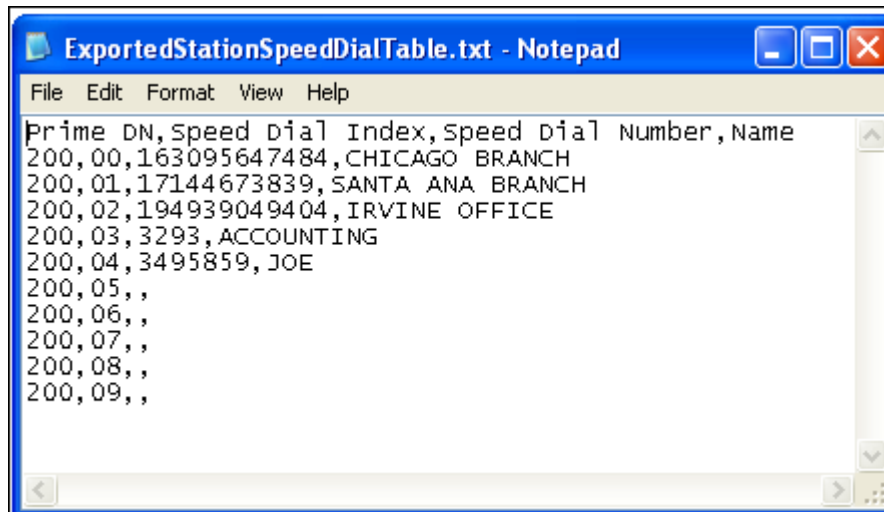
1. Make sure that station 200 has speed dial number memory assigned in Program 200-35. Create station speed dial numbers and names for station 200 using the Station Speed Dial Table View.
2. Open the Station Speed Dial Table View, select Advanced Configuration > Station > Station Speed Dial Table View. All of the assignments for station speed dial are displayed.
3. At the top of the Station Speed Dial Table View screen click on the **Export** button.



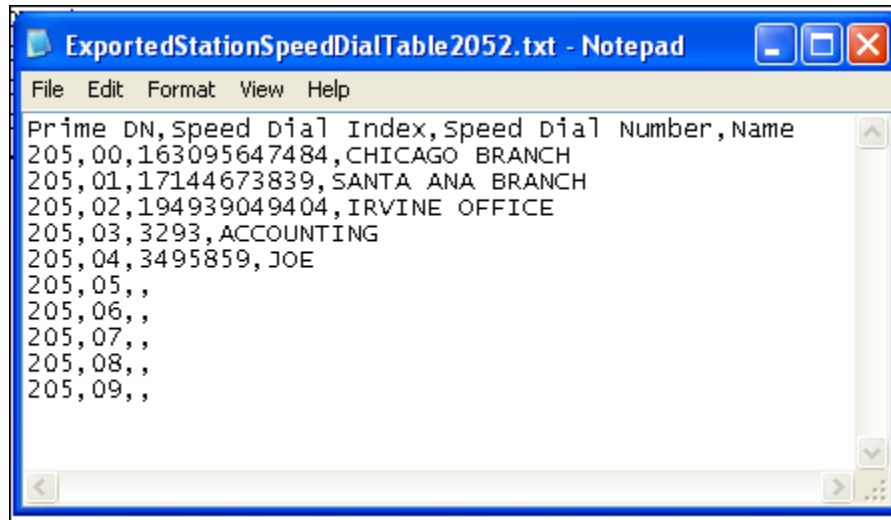
4. Select or create the folder where the station speed dial assignment file for station 200 will be saved, then click **Save**. This will save the station speed dial names and numbers as a CSV text file.



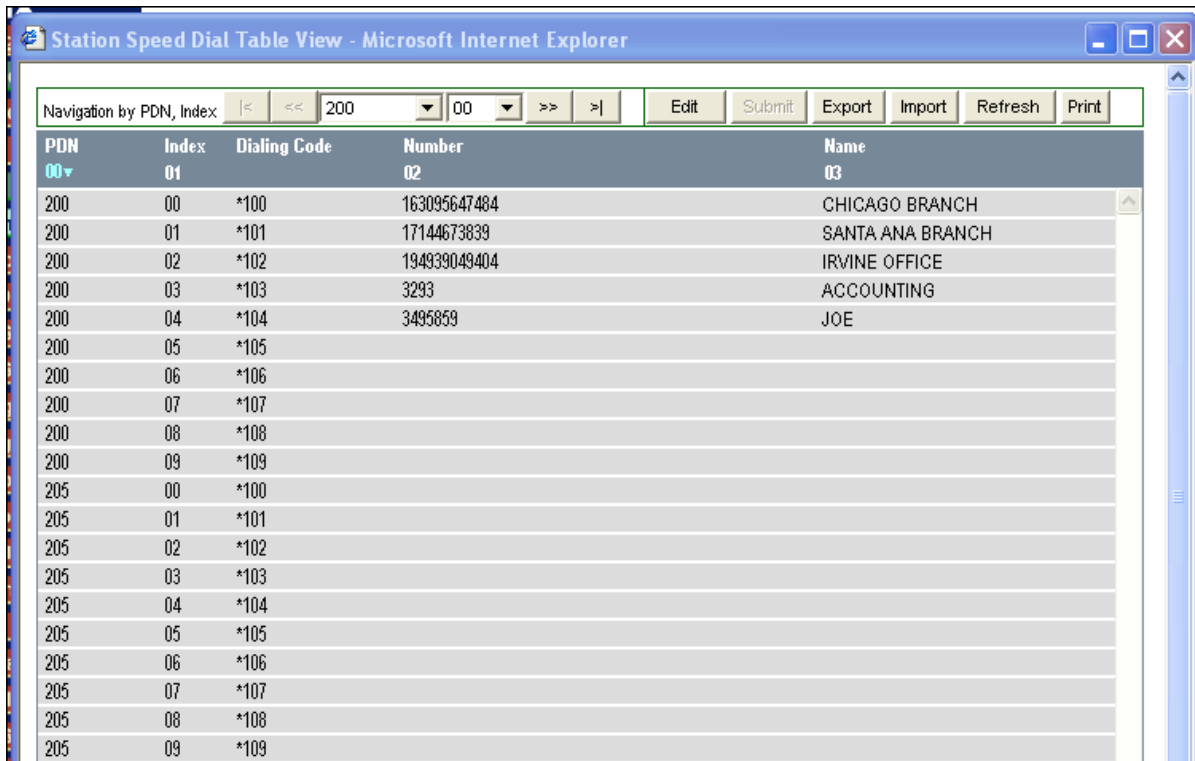
5. Make sure that station 205 has speed dial number memory assigned in Program 200-35.
6. Open the exported station 200 speed dial CSV text file saved in Step 4, using Word Pad.



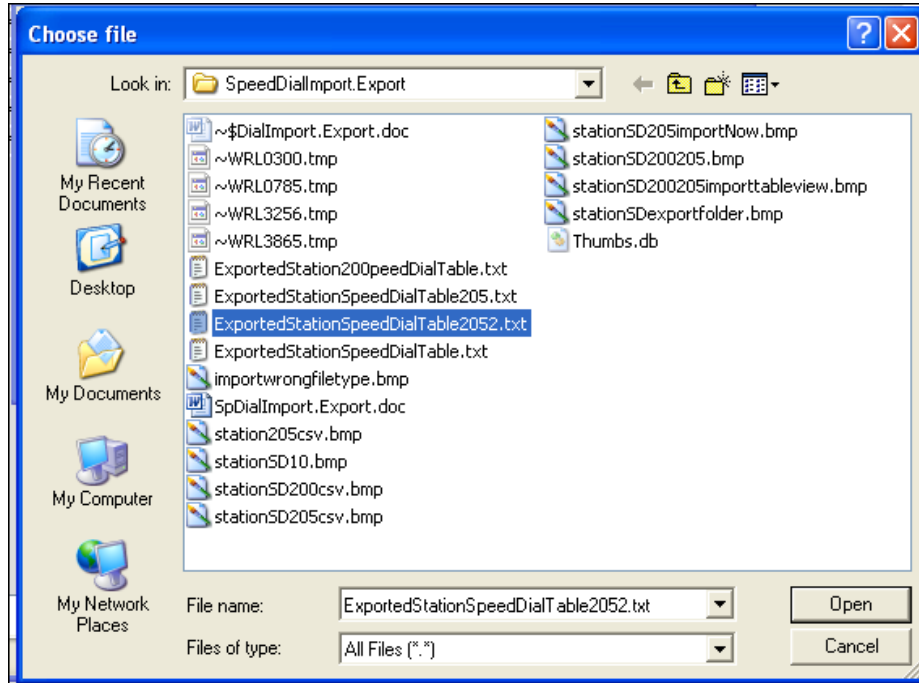
- In the text file, change the Prime DN from 200 to 205 – be sure to keep the same comma delimited format intact as shown below and do not change the header. Save the file under a different name.



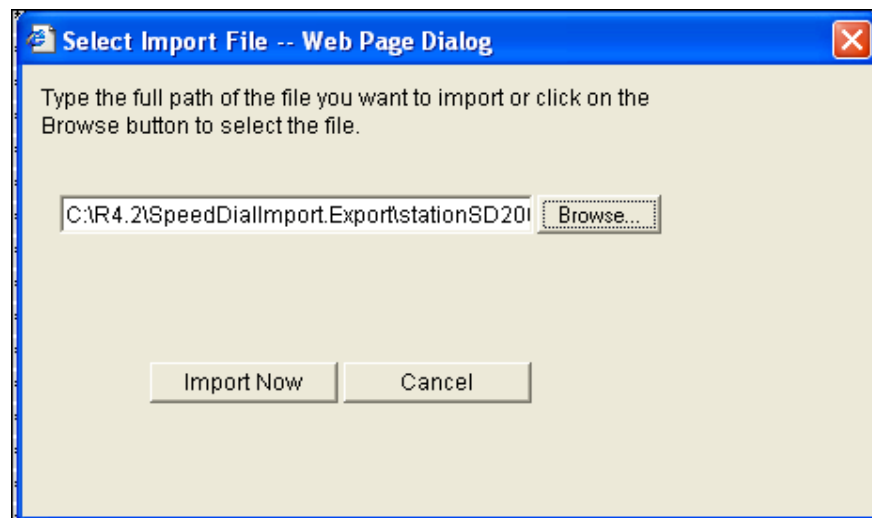
- In Network eManager, select Station > Speed Dial Table View. All assignments for Station Speed Dial are displayed.
- On the top of the Station Speed Dial Table View screen click on **Import**.



10. The Choose File dialog box will open. Use the Browse button to find the text file containing the speed dial assignments for station 200 (created in Step 7 above).



11. After selecting the station 205 speed dial file click **Open**. A Network eManager dialog box will prompt you to Import the data to the CIX. Click **Import Now**. This will cause Network eManager to import and upload the station 205 speed dial data to the CIX.



12. In Network eManager select Station > Speed Dial Table View. All assignments for station speed dial are displayed. Station 205 will have the same speed dial assignments as station 200.

PDN	Index	Dialing Code	Number	Name
200	00	*100	163095647484	CHICAGO BRANCH
200	01	*101	17144673839	SANTA ANA BRANCH
200	02	*102	194939049404	IRVINE OFFICE
200	03	*103	3293	ACCOUNTING
200	04	*104	3495859	JOE
200	05	*105		
200	06	*106		
200	07	*107		
200	08	*108		
200	09	*109		
205	00	*100	163095647484	CHICAGO BRANCH
205	01	*101	17144673839	SANTA ANA BRANCH
205	02	*102	194939049404	IRVINE OFFICE
205	03	*103	3293	ACCOUNTING
205	04	*104	3495859	JOE
205	05	*105		
205	06	*106		
205	07	*107		
205	08	*108		
205	09	*109		

Network eManager Network Calling Number Upload

The Network Calling Number is normally entered and submitted one-at-a-time for each PDN using Program 200-46. This can take a lot of time if the system has many PDNs. The Network Calling Number Upload feature allows you to create a comma separated (CSV) text file containing PDNs and their associated Network Calling Numbers and then upload the text file to the CIX once.

The format of the text file is: Prime DN,Network Calling Number

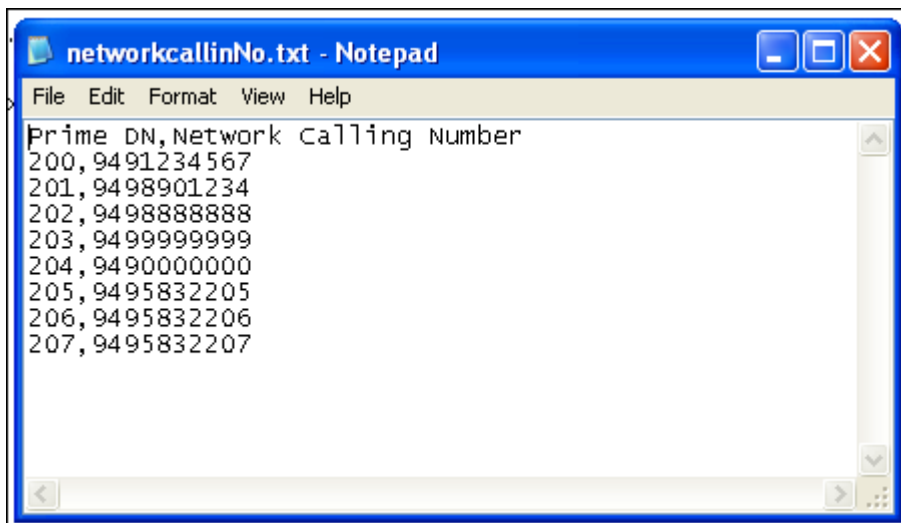
To create the CSV file for uploading you must create a list of all of the stations in the CIX system. One method for creating the list is display the Table View of the stations, export the table, then delete all but the station numbers in the text file that was exported.

Example: Upload Network Calling numbers for stations 200~207.

1. Create a CSV text file containing the PDN and Network Calling number for each station. In this example the file shown was created using Microsoft Notepad.

As noted above, a Network eManager Imported Table View file could be used to start this by

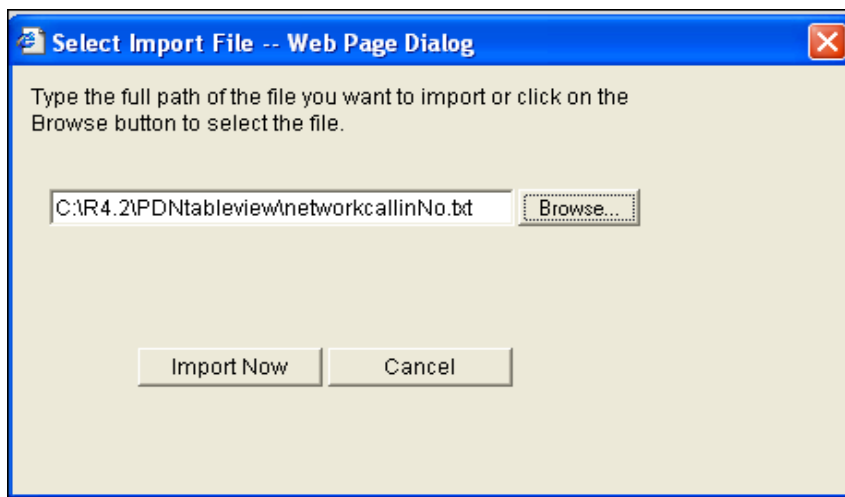
generating all PDNs (then, in the imported text file, delete all other fields except the PDNs so that all that would need to be entered is the Network Calling numbers).



- Open the station PDN Table View and select Station > PDN Table View. All of the station table view assignments will be displayed (Note: Network Calling Numbers not are shown).

Equipment	PrimeDN	Telephone LGD Name	VMID	COS	DRL	FRL	LCR	SYS	NET	Sta.	Network Calling Number						
Number	Type	Used As		D1	D2	N	D1	D2	N	Grp	CF	COS	Spd	Tenant			
01	DKT	Extension	200	MARY	19	1	1	1	1	1	1	1	1	1	1	10	1
02	DKT	Extension	201	TOM		1	1	1	1	1	1	1	1	1	1	0	1
03	DKT	Extension	202	SUE		1	1	1	1	1	1	1	1	1	1	0	1
04	DKT	Extension	203	JOE		1	1	1	1	1	1	1	1	1	1	0	1
05	DKT	Extension	204	ANN		1	1	1	1	1	1	1	1	1	1	0	1
06	DKT	Extension	205	FRANK		1	1	1	1	1	1	1	1	1	1	0	1
07	DKT	Extension	206	LOBBY		1	1	1	1	1	1	1	1	1	1	0	1
08	DKT	Extension	207	LUNCH ROOM		1	1	1	1	1	1	1	1	1	1	0	1

- Click on the **Upload CID** button at the top of the PDN Table View screen and browse to the file created in Step 1.



- Click **Import Now**. Network eManager will upload the selected file into the CIX database and then update Program 200-46 and the PDN Table View automatically (Note: Network Calling Numbers are shown).

Equipment Number	Type	Used As	PrimeDN	Telephone LCD Name	VMID	COS			DRL			FRL			LCR Grp	SYS CF	NET COS	Sta. Spd	Tenant	Network Calling Number
						D1	D2	N	D1	D2	N	D1	D2	N						
01	DKT	Extension	200	MARY	19	1	1	1	1	1	1	1	1	1	0	1	10	1	9491234567	
02	DKT	Extension	201	TOM		1	1	1	1	1	1	1	1	1	0	1	0	1	9498901234	
03	DKT	Extension	202	SUE		1	1	1	1	1	1	1	1	1	0	1	0	1	9498888888	
04	DKT	Extension	203	JOE		1	1	1	1	1	1	1	1	1	0	1	0	1	9499999999	
05	DKT	Extension	204	ANN		1	1	1	1	1	1	1	1	1	0	1	0	1	9490000000	
06	DKT	Extension	205	FRANK		1	1	1	1	1	1	1	1	1	0	1	0	1	9495832205	
07	DKT	Extension	206	LOBBY		1	1	1	1	1	1	1	1	1	0	1	10	1	9495832206	
08	DKT	Extension	207	LUNCH ROOM		1	1	1	1	1	1	1	1	1	0	1	0	1	9495832207	

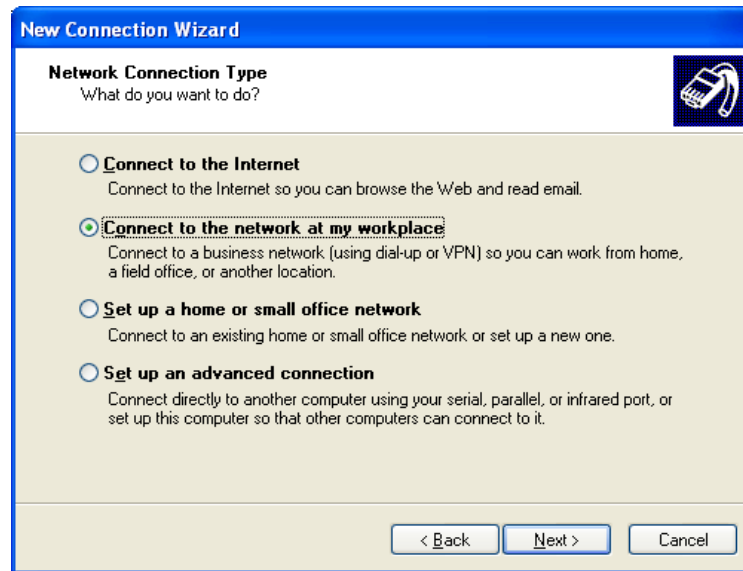
Connection Entry for Dial-up

This new connection setup must be completed in order to use the modem in the Network eManager PC to dial-up a CIX system. The following steps cover the network connection setup in the PC that must be done to use the PC modem.

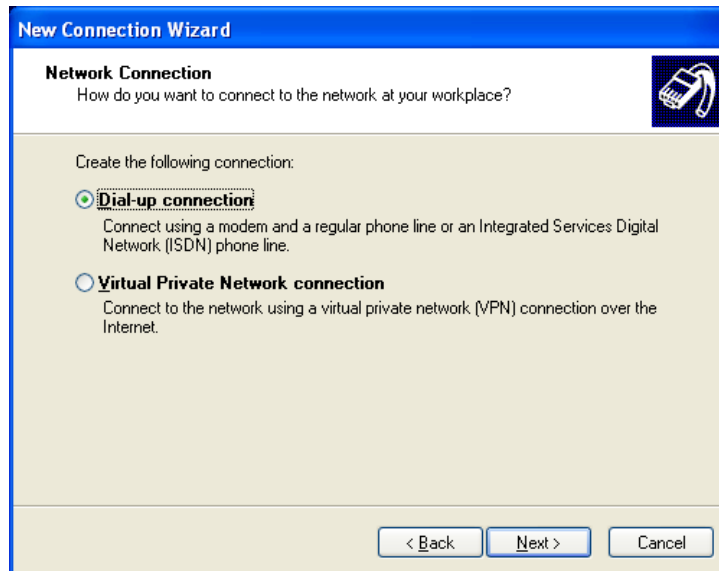
- In Control Panel Network Connections, select **Create** a new connection to start the wizard:



- Click **Next**.



3. Select 'Connect to the network at my workplace' then click **Next**.

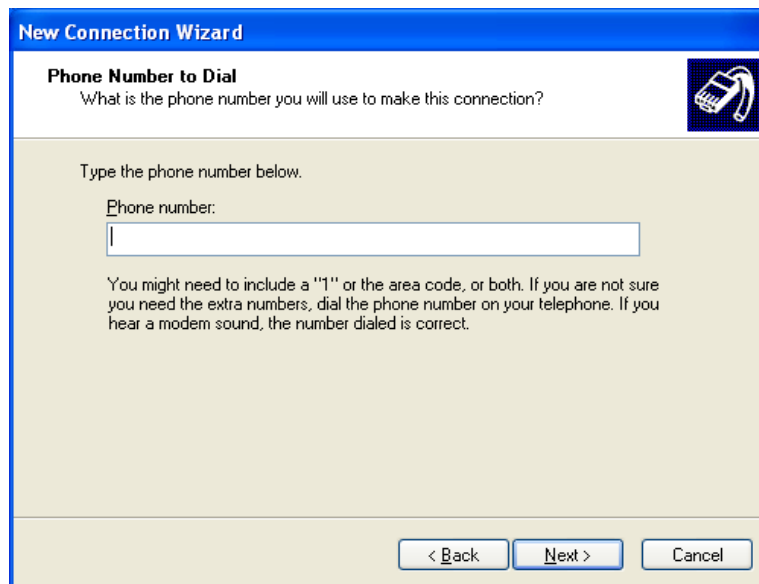


4. Select 'Dial-up connection,' then click **Next**.



The screenshot shows the 'New Connection Wizard' dialog box with the title bar 'New Connection Wizard'. The main heading is 'Connection Name' with the instruction 'Specify a name for this connection to your workplace.' Below this, it says 'Type a name for this connection in the following box.' There is a text input field labeled 'Company Name' containing the text 'RemoteCTX1'. A note below the field reads: 'For example, you could type the name of your workplace or the name of a server you will connect to.' At the bottom right, there are three buttons: '< Back', 'Next >', and 'Cancel'. A small icon of a telephone handset is in the top right corner.

5. Enter "RemoteCTX1" as the name of the connection (this entry is case sensitive and must not have any spaces), and click **Next**.



The screenshot shows the 'New Connection Wizard' dialog box with the title bar 'New Connection Wizard'. The main heading is 'Phone Number to Dial' with the instruction 'What is the phone number you will use to make this connection?'. Below this, it says 'Type the phone number below.' There is a text input field labeled 'Phone number:' which is currently empty. A note below the field reads: 'You might need to include a "1" or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telephone. If you hear a modem sound, the number dialed is correct.' At the bottom right, there are three buttons: '< Back', 'Next >', and 'Cancel'. A small icon of a telephone handset is in the top right corner.

- You must leave the Phone number empty, the phone number will be configured later in the Network eManager equipment profile. Click on **Next**.

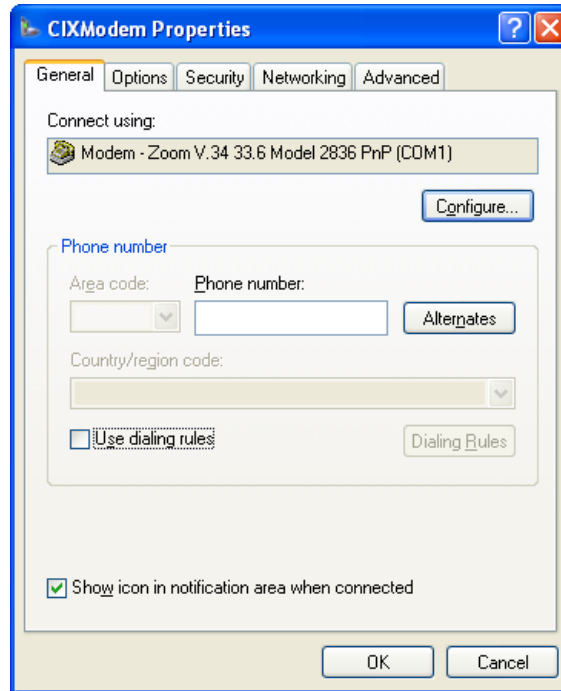


- Do not click on the 'Add a shortcut' box.' Click **Finish**, it will create the new entry and pop up the Connect dialog.

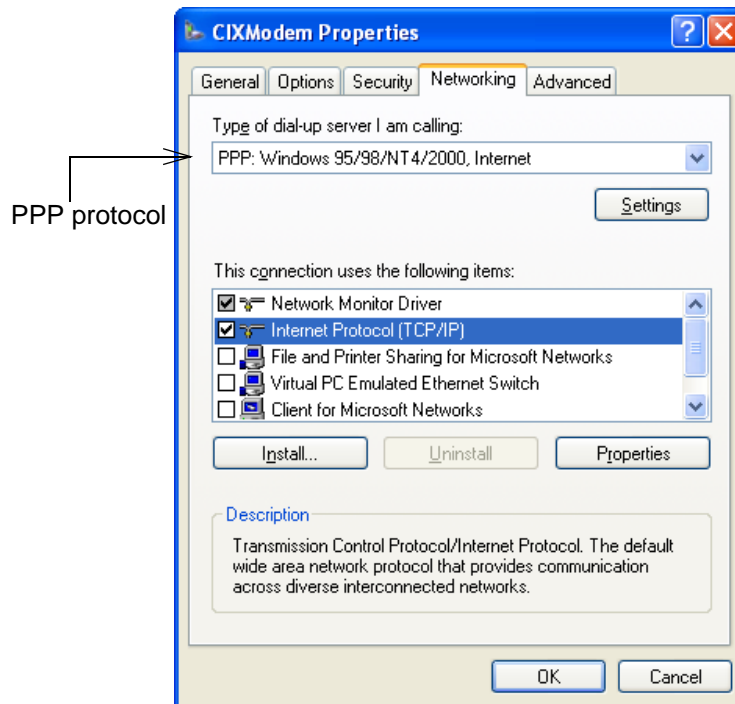


- Do not make any entries in this dialog box. Click on **Properties** to continue with the setup:

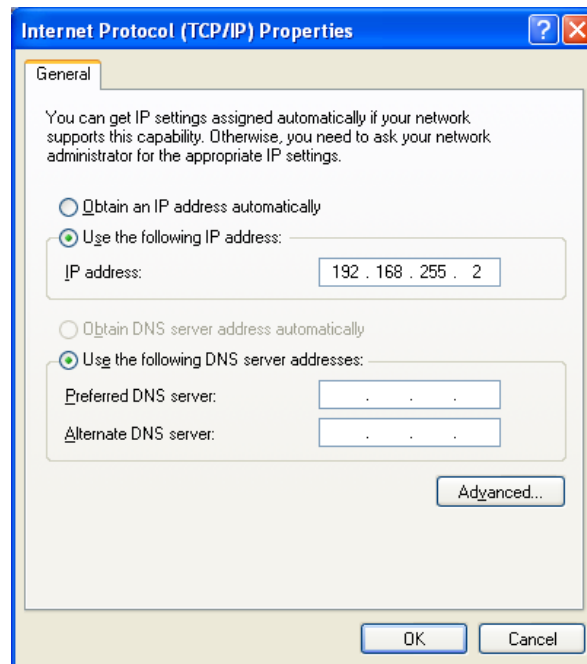
The CIXModem Properties dialog box will open.



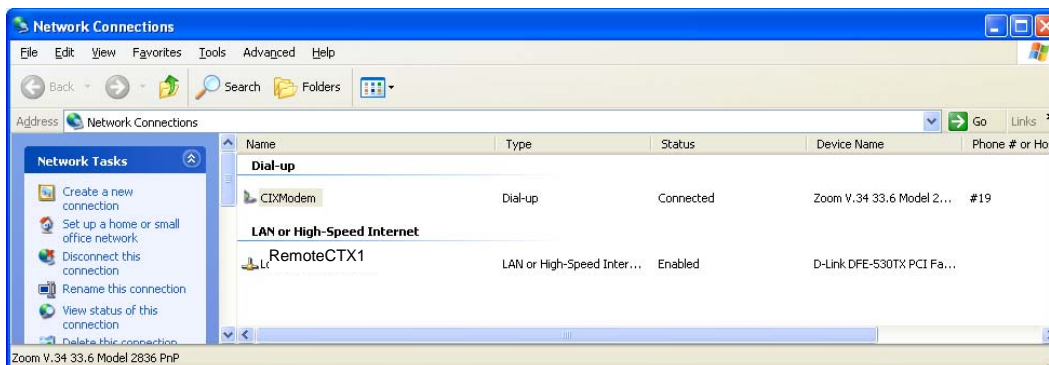
9. Select your modem and configure if necessary, otherwise leave the default values for other fields including the Options Security and Advanced tabs. You must leave the Phone number empty for now. The phone number will be configured later in the Network eManager equipment profile. Click on the Networking tab.



- Select PPP protocol from the 'Type of dial-up server I am calling:' drop-down list. Uncheck all items on the other list except TCP/IP. (You cannot uncheck Network Monitor Driver if it is there.) Select TCP/IP and click **Properties**:



- Click to select: Enter an IP address between 192.168.255.2 and 192.168.255.252. Use an IP address that is not already in use on this PC and its network.
 - Click **OK**, then **OK** again to close the Properties.
 - Click **Cancel** on the Connect CIXModem dialog to close it. The new entry is created in Network Connections.
 - The Connect RemoteCTX1 screen will appear. Click on **Cancel**.
- The new network connection entry can be viewed by going to the Control Panel.



Help Topics/Context Help

In Network eManager, move the pointer over Help>. The drop-down menu shows: Command Table, CIX Help, SES Help. Click Command Table to show the entire Command structure in numerical order. Click CIX Help to open the Programming Manual Vol. 1 (this manual), or SES Help to open the Strategy ES Programming Manual Vol. 2.

About Network eManager

Every Network eManager screen displays the software version numbers.

No Response from Device

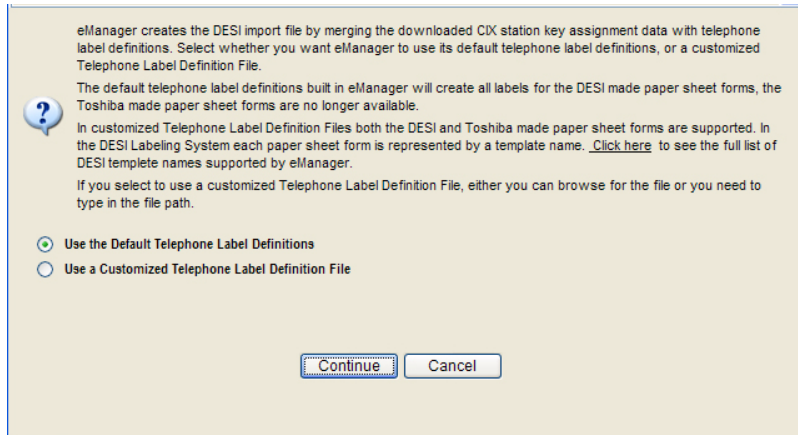
While using Network eManager the error message 'No response from device' may appear. The following is a list of conditions that may cause the problem and suggestions for trouble shooting.

- The connection parameters in the Profile database Equipment List are incorrect. No CIX is configured as listed on the network. Check whether the IP Address and the Community Name are correct as shown in the Equipment List.
- There is no IP network path between Network eManager and the CIX. Ping the CIX from the Network eManager server PC to determine if there is connectivity.
- Between Network eManager and the CIX, the SNMP messages are blocked by a network device (router, firewall, etc.). Check the network device(s) and firewall configuration, verify that the SNMP protocol and IP ports 161 and 162, and also the FTP protocol and IP ports 20 and 21 are not blocked.
- Network latency is due to high traffic, not enough bandwidth. Use network monitoring tools to verify that SNMP responses from the network location of the CIX arrive at the Network eManager PC location within 3000ms.
- The CIX is turned off or not functioning. Verify that the targeted CIX is turned on and running.
- The CIX processor is overloaded, delaying processing SNMP request messages. In this case the normal SNMP message flow will be restored by CIX. The system congestion is cleared up and the system is running under normal load.

Network eManager DESI Integration / Telephone Keystrip Printing

Network eManager provides a function to collect all keystrip button assignments programmed in a system and download them as a comma separated value (CSV) text file to the Network eManager Hard Drive. The keystrip data file contains the data for all IP and DKT Telephones, DSS Consoles and Add-On-Modules.

Telephone Keystrip Label software from DESI Telephone Labels, Inc. can import this file and print keystrips on DESI keystrip paper. Keystrips can be printed without having to manually type labels for each button on each Telephone, DSS and ADM keystrip. This feature provides a large labor cost saving. Clicking on Download Keystrip Data will display this screen.

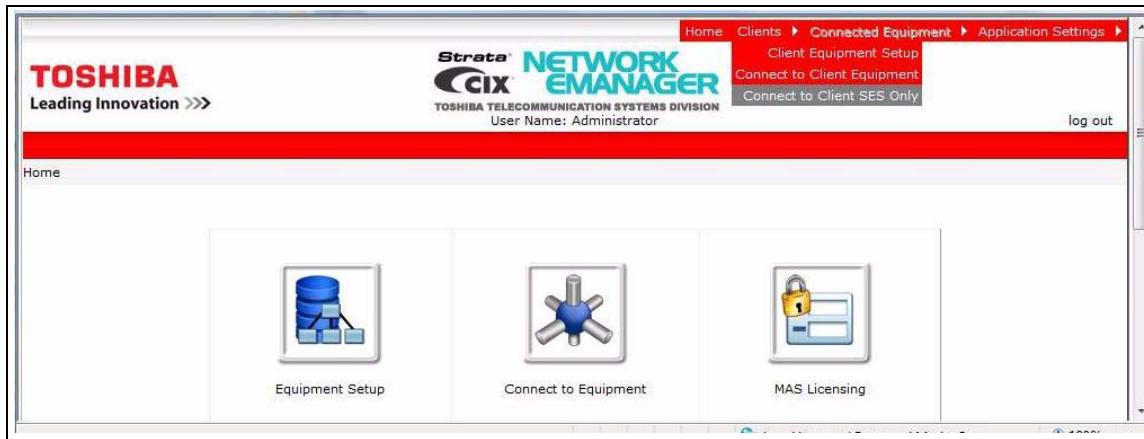


This feature supports DESI Telephone Labels, Inc. products only and requires DESI Print Engine 2.74 software or later and Toshiba format Keystrip paper. DESI keystrip paper is available for all Toshiba DKT2000/DKT3000/DKT3200/IPT2000/IP5000-series telephones DSS consoles and Add-On-Modules. To order DESI Software and Keystrip paper for Toshiba telephone products go to www.DESI.com or call 1-800-814-3922.

Manage Stand-Alone SES Systems

Network eManager provides a separate menu item to select an SES system for administration. NeM connection to a stand-alone SES system is different from connection to an SES with Strata CIX system in that only voice mail menus are available.

1. To connect to a stand-alone SES select **Connect to Client SES Only** from the NeM home page Client menu.



2. Click on **Connect to Client SES Only**.



3. Enter the IP address or the host name of the SES system then, lick on the **Connect** button.
4. The Strategy ES menu will appear when the connection is made.



License Consideration

This chapter describes the content and use for Strata CIX, Media Application Server (MAS) and ACD dongle license.

- Each of the following items requires an IP Port (end point) license:
 - IP5000/IPT2000 series
 - SIP telephones
 - SoftIPT (Also requires a Soft IPT License)

- Basic Port licenses are required for each of the following when using GIPU, MIPU, LIPU/LIPS ports (the LIC-CIX is not required to support these items):
 - IP Voice Mail
 - IP ACD Announcement port
 - IP Attendant Console (does not require a Soft IP License)
 - Strata Net IP trunks (requires a Strata Net License)

- IP End-Point Licenses included with the IP System license:
 - CIX100 and CIX670 ship with four IP End-Point licenses
 - CIX200 ships with 16 IP End-Point licenses
 - CIX1200 ships with 4 IP End-Point licenses

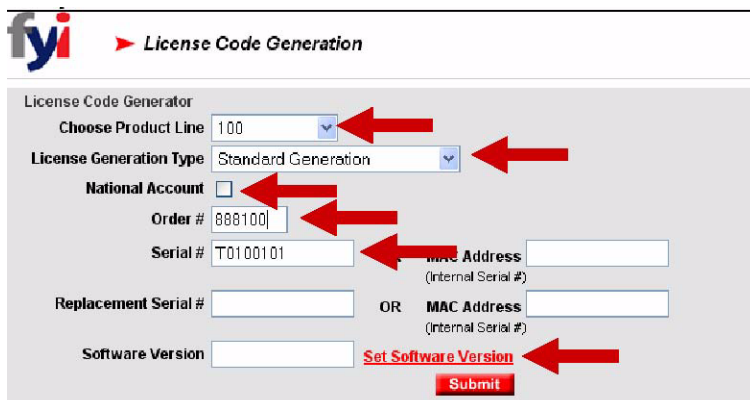
License Code Generation, Inquiry and Summary for Dealers and National Accounts

Important! Pop-Up Blockers should be disabled before beginning this process

1. Click on License Codes and in the drop-down box click on Generation.



2. The License Code Generation screen as shown below appears. Enter the information as specified.



- Select the Product Line.
- Select the Generation Type.
- For National Account, check the National Account box.
- Enter the Order #.
- Enter the Serial # OR the MAC Address.
- Click Set Software Version.

- Select the features to apply to the system. The required minimum software version is automatically populated based on the features selected.

Click **Submit**.

- You are returned to the License Code Generation screen with the software version populated.

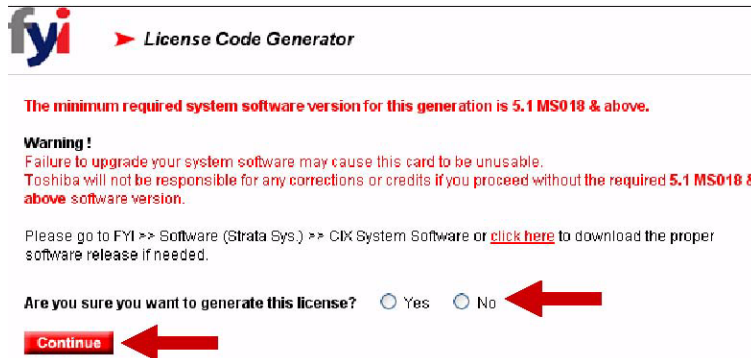
Click **Submit**.

Licenses - SYSTEM, MAS, ACD

License Code Generation, Inquiry and Summary for Dealers and National Accounts

- When a license is generated for a version greater than the last license generated, a warning displays asking if you have upgraded your software. If you answer Yes, you continue with the generation; a No takes you back to Select Version.

CAUTION! Once this version has been generated, you CANNOT go back to a lower version, nor can you regenerate a lower version.



fyi ▶ License Code Generator

The minimum required system software version for this generation is 5.1 MS018 & above.

Warning!
Failure to upgrade your system software may cause this card to be unusable.
Toshiba will not be responsible for any corrections or credits if you proceed without the required 5.1 MS018 & above software version.

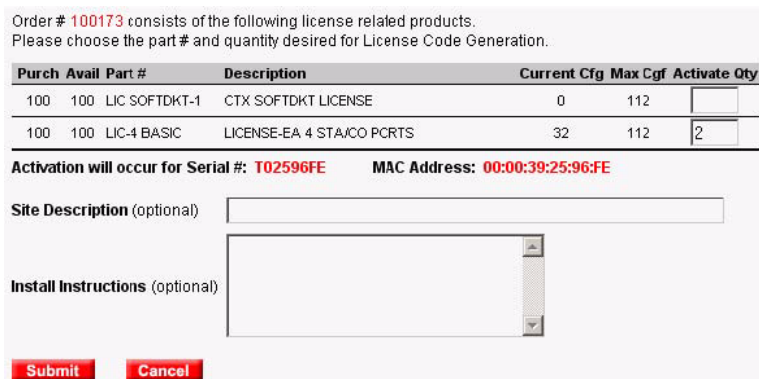
Please go to FYI >> Software (Strata Sys.) >> CIX System Software or [click here](#) to download the proper software release if needed.

Are you sure you want to generate this license? Yes No

Continue

Click **Continue**.

- This displays the Purchased quantity, Available quantity, Serial # and MAC Address. Enter the Activate Qty (for National Accounts, the Activate Qty is automatically filled and cannot be changed). The Site Description and Install Instructions are for your information only.



Order # 100173 consists of the following license related products.
Please choose the part # and quantity desired for License Code Generation.

Purch	Avail	Part #	Description	Current Cfg	Max Cfg	Activate Qty
100	100	LIC SOFTDKT-1	CTX SOFTDKT LICENSE	0	112	
100	100	LIC-4 BASIC	LICENSE-EA 4 STA/CO PCRTS	32	112	2

Activation will occur for Serial #: **T02596FE** MAC Address: **00:00:39:25:96:FE**

Site Description (optional)

Install Instructions (optional)

Submit **Cancel**

Click **Submit**.

7. Enter the End User Site information (* are required fields) and click **Continue**.

End User Site Information

Please enter or update the End User Site Information of the License System. Site Information will only be saved if proceed forward and generation is finalize.

The following information helps our Sales and Support staff provide faster service to our Resellers. We will not contact the customer directly unless we have permission from the Reseller. We will not send unsolicited e-mail to the customer contact.

* End User Site

* Address1

Address2

* City

* State

* Postal Code

* Country

* Phone

Fax

* Contact Name

* Contact E-mail

Please enter the correct E-mail address since the license code generated from external vendors may be sent there directly.

* Dealer Contact E-mail

Note: * indicates required fields.

Continue **Reset** **Cancel**

8. The License Agreement displays for you to read and agree. Click **Finalize**.

fyi License Code Generator

TOSHIBA AMERICA INFORMATION SYSTEMS, INC. ("TAIS")
Digital Solutions Division
LICENSE AGREEMENT

IMPORTANT: THIS LICENSE AGREEMENT ("AGREEMENT") IS A LEGAL AGREEMENT BETWEEN YOU ("YOU") AND TAIS. CAREFULLY READ THIS LICENSE AGREEMENT. USE OF ANY SOFTWARE OR ANY RELATED INFORMATION (COLLECTIVELY, "SOFTWARE") INSTALLED ON OR SHIPPED WITH A TAIS DIGITAL SOLUTIONS PRODUCT OR OTHERWISE MADE AVAILABLE TO YOU BY TAIS IN WHATEVER FORM OR MEDIA, WILL CONSTITUTE YOUR ACCEPTANCE OF THESE TERMS, UNLESS SEPARATE TERMS ARE PROVIDED BY THE SOFTWARE SUPPLIER. IF YOU DO NOT AGREE WITH THE TERMS OF THIS LICENSE AGREEMENT, DO NOT INSTALL, COPY OR USE THE SOFTWARE AND PROMPTLY RETURN IT TO THE LOCATION FROM WHICH YOU OBTAINED IT IN ACCORDANCE WITH APPLICABLE RETURN POLICIES. EXCEPT AS OTHERWISE AUTHORIZED IN WRITING BY TAIS, THIS SOFTWARE IS LICENSED FOR DISTRIBUTION THROUGH TAIS AUTHORIZED CHANNELS ONLY TO END-USERS PURSUANT TO THIS LICENSE AGREEMENT.

If you **AGREE**, and would like to continue License Code Generation for **Strata CTX T02596FE** please click on the **FINALIZE** button below

If you **DISAGREE**, and would like to cancel this License Code Generation please click on the **CANCEL** button below

Finalize **Cancel**

9. The License Display Page displays all information for the generation. Copy (Ctrl C) and Paste (Ctrl V) the code into Network eManager.

CAUTION! Be careful not to copy any blank spaces, either at the beginning or at the end of the code

- Maintain System Site Info can be used to update site information for maintenance reminders.
- Email the file to technicians by entering up to four email addresses and clicking **Submit**.
- Configuration Details can be viewed by clicking on the link.
- Click **Return** to generate another code or click the left navigation bar for other options.

fyi > License Display Page

The following refers to the license upgrade requested on, JAN 17, 2008 13:35, for the phone system associated with serial # **T0100101**. The listed license parts and quantities, along with the previous configuration, are used to generate the following License. These functionalities are activated through the eManager.

****Important****

When entering a License Code into the eManager, start from the left with the first block of ten(10) characters. The code is case sensitive so enter the characters just as you see them on the screen. The code has been broken up into multiple blocks of 10 characters for visual purposes only. There must NOT be any spaces or dashes between characters.

[+ Reading License +](#)

Copy (ctrl-c) the license code below and paste (ctrl-v) it into the eManager

```
OQ01$k82L8g0IO07p0Bc7w0ecB00eRg2wRo42Fw0Eg0qbNWCmM00vaw0aw2GIM00r08$
```

Product Line: CTX100
Processor Part Num: ACTU3A
License code only valid for Serial #: **T0100101**
Required Software Version: 5.11
License Code Length: 68

Requestor: Magali Lamourelle (magali)
Dealer: TOSHIBA TELECOM DIVISION (09000100)

[Maintain System Site Info](#)

Email Addresses:

<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Submit

License Inquiry

1. Click on License Codes. A drop-down box appears - click Inquiries.

Welcome: Layman [Edit My Profile](#)

- [FYI Home](#)
- [Purchasing](#)
- [Maintenance](#)
- [Finance](#)
- [Sales](#)
- [Marketing](#)
- [Documentation](#)
- [Technical Services](#)
- [Software \(Strata Sys.\)](#)
- [Software \(Voice Proc.\)](#)
- [Training](#)
- [Directories](#)
- [License Codes](#)
 - Generation
 - Inquiries**
 - Open License Summary
 - Oaisys Link
- [Admin](#)

fyi Promotions

Call Center Solutions

New Pricing Makes Application Selling Easier!

Multiple turnkey packages, including:

- 10 ACD Agents / Supervisors
- 10 Net Phone Clients
- 10 Chat Instant Messaging Clients
- myTASKE Reporter Software

* See Product Bulletin PBCIX-0029

[Click to see all promotions >](#)

2. You can inquire on the Serial # OR MAC Address. Click **Submit**.

3. The License Display Page displays all information for the generation. By clicking on the down arrow in the Date Box and highlighting a date, the generation for that date displays, or enter the Order # and click **Submit** (see next page).

- Configuration Details can be viewed by clicking on the link.
- Maintain System Site Info can be used to update site information that is used for maintenance reminders.

The following refers to the license upgrade requested on, JAN 17, 2008 13:35, for the fyi system associated with serial # **T0100101**. The listed license parts and quantities, along with the previous configuration, are used to generate the following License. These functionalities are activated through the eManager.

****Important****

When entering a License Code into the eManager, start from the left with the first block of ten(10) characters. The code is case sensitive so enter the characters just as you see them on the screen. The code has been broken up into multiple blocks of 10 characters for visual purposes only. There must NOT be any spaces or dashes between characters.

+ Reading License +

Copy (ctrl-c) the license code below and paste (ctrl-v) it into the eManager

OQ01\$K82L8g0lO07p0Bc7w0eC800eRg2wR042Fw0Eg0qbNwCmM00vaw0aw2GIM00r08\$

Product Line: CTX100
 Processor Part Num: ACTU3A
 License code only valid for Serial #: **T0100101**
 Required Software Version: 5.11
 License Code Length: 68

Requestor: Magali Lamourelle (magali)
 Dealer: TOSHIBA TELECOM DIVISION (09000100)

[Maintain System Site Info](#)

Email Addresses:

Submit

Part #	Description	Order #	Ord Qty Activated	Config QTY
LIC100-SER PORT	LICENSE-1 EA SERIAL PORT	888100	1	1

+ Configuration Details +

Return **View Apps**

Licenses - SYSTEM, MAS, ACD

License Code Generation, Inquiry and Summary for Dealers and National Accounts

fyi > License Code Inquiry

License Code Inquiry - Serial#

National Account

Serial # T02596FE OR MAC Address

Submit

License Code Inquiry - Order#

Order # 100173 **Submit**

Licenses generated from the order display as follows. Click on the red Generation Time to display details.

fyi > License Code Inquiry - Order#

Order #: 100173

System#	Serial#	Dealer#	Processor	Generation Time
27388	0070RKA8BE	09000100	MAS	09/15/2006 - 04:09:24
27389	T02596FE	09000100	CTX100	09/18/2006 - 10:09:30

Return

Open License Summary

1. Click on License Codes and click on Open License Summary.

Welcome: Layman [Edit My Profile](#)

fyi Promotions

Call Center Solutions

New Pricing Makes Application Selling Easier!

Multiple turnkey packages, including:

- 10 ACD Agents / Supervisors
- 10 Net Phone Clients
- 10 Chat Instant Messaging Clients
- myTASKE Reporter Software

* See Product Bulletin PBCIX-0029

[Click to see all promotions >](#)

2. Search by any option or simply check the Search All box and click Search.
 - To view the license use HTML format.
 - To save to another file use the XLS format.

3. Find the license you want and click on the red Part Num. Click Expand Orders Lists to see all order numbers.

Toggle the "Part Num" to view / hide the order lists and click on the "Order Num" to view the License Order Page.

[Expand Order Lists](#) [Close Order Lists](#)

Part Num	Part Desc	Purchased Qty	Adjusted Qty	Consumed Qty	Available Qty
LIC-SOFTDKT-1	CTX SOFTDKT LICENSE	100	0	0	100
LIC-4 BASIC	LICENSE-EA 4 STAWCO PORTS	100	0	2	98
LIC-4 DTMF	LICENSE-4 DTMF RCVR5 EACH	100	0	0	100
LIC-CIX	LICENSE-CIX	100	0	0	100
LIC-CIX-1	LICENSE-CIX-1	100	0	0	100

[Expand Order Lists](#) [Close Order Lists](#)

Part Num	Part Desc	Purchased Qty	Adjusted Qty	Consumed Qty	Available Qty		
LIC-SOFTDKT-1	CTX SOFTDKT LICENSE	100	0	0	100		
Order Num	Order Date	Purchased Qty	Adjusted Qty	Consumed Qty	Available Qty	Cost Num	Orig Header
99999	09/15/2005	100	0	0	100	09000100	99002100
LIC-4 BASIC	LICENSE EA 4 STAWCO PORTS	100	0	2	98		
Order Num	Order Date	Purchased Qty	Adjusted Qty	Consumed Qty	Available Qty	Cost Num	Orig Header
99999	09/15/2005	100	0	2	98	09000100	99002100

MAS License Generation, Inquiry and Summary for Dealers and National Accounts

Important! Pop-Up Blockers should be disabled before beginning this process.

1. Click on License Codes and in the drop-down box click on Generation.



Make the following entries:

- Select the Product Line
- Select the Generation Type - For National Account check the National Account box
- Enter the Order #
- Enter the Serial # OR the MAC Address
- Click Set Software Version

- Select the features to apply to the system. The required minimum software version is automatically populated based on the features selected. Click **Submit**.

fyi > Software Version Requirement Reference

What feature(s) are you adding to this system? Click on **Submit** when done.

Basic Ports
 Softphone
 Attendant Console (+CSTA)
 IP End Port
 ACD (+CSTA)
 IP Call Agent
 FeatureFlex, VCS, TAPI (+CSTA)
 LVMU
 Serial Port
 Strata Net Channel License
 DTMF Receivers (DREC)
 SIP Trunk
 Strata Net System License
 DP5022-SDM

Current Minimum ACTUSA System (T0100101) Software: **unknown**
 Required Minimum Software: **ver. 5.1 MS018 & above**

This **ACTUSA** only supports the listed features. If the feature you want to add is not shown, you must upgrade your hardware.

- You are returned to the License Code Generation screen with the software version populated.

fyi > License Code Generation

License Code Generator

Choose Product Line: 100

License Generation Type: Standard Generation

National Account:

Order #: 888100

Serial #: T0100101 OR MAC Address (Internal Serial #)

Replacement Serial #: OR MAC Address (Internal Serial #)

Software Version: 5.1 MS018 & above **Set Software Version**

Click **Submit**.

Licenses - SYSTEM, MAS, ACD

MAS License Generation, Inquiry and Summary for Dealers and National Accounts

- When a license is generated for a version greater than the last license generated, a warning displays asking if you have upgraded your software. If you answer Yes, you continue with the generation; a No takes you back to Select Version.

CAUTION! Once this version has been generated, you CANNOT go back to a lower version, nor can you regenerate a lower version

fyi > License Code Generator

The minimum required system software version for this generation is 5.1 MS018 & above.

Warning!
Failure to upgrade your system software may cause this card to be unusable.
Toshiba will not be responsible for any corrections or credits if you proceed without the required 5.1 MS018 & above software version.

Please go to FYI => Software (Strata Sys.) => CIX System Software or [click here](#) to download the proper software release if needed.

Are you sure you want to generate this license? Yes No

Continue

Click **Continue**.

- This displays the Purchased quantity, Available quantity, Serial # and MAC Address. Enter the Activate Qty (for National Accounts, the Activate Qty is automatically filled and cannot be changed). The Site Description and Install Instructions are for your information only.

Order # 100173 consists of the following license related products.
Please choose the part # and quantity desired for License Code Generation.

Purch	Avail	Part #	Description	Current Cfg	Max Cfg	Activate Qty
100	100	LIC SOFTDKT-1	CTX SOFTDKT LICENSE	0	112	<input type="text"/>
100	100	LIC-4 BASIC	LICENSE-EA 4 STAWOO PORTS	32	112	<input type="text" value="2"/>

Activation will occur for Serial #: T02596FE MAC Address: 00:00:39:25:96:FE

Site Description (optional)

Install Instructions (optional)

Submit **Cancel**

Click **Submit**.

6. Enter the End User Site information (* are required fields) and click **Continue**.

End User Site Information

Please enter or update the End User Site Information of the License System. Site Information will only be saved if proceed forward and generation is finalize.

The following information helps our Sales and Support staff provide faster service to our Resellers. We will not contact the customer directly unless we have permission from the Reseller. We will not send unsolicited e-mail to the customer contact.

* End User Site

* Address1

Address2

* City

* State

* Postal Code

* Country

* Phone

Fax

* Contact Name

* Contact E-mail

Please enter the correct E-mail address: since the license code generated from external vendors may be sent there directly.

* Dealer Contact E-mail

Note: * indicates required fields.

Continue **Reset** **Cancel**

7. The License Agreement displays for you to read and agree. Click **Finalize**.

fyi License Code Generator

TOSHIBA AMERICA INFORMATION SYSTEMS, INC. ("TAIS")
Digital Solutions Division
LICENSE AGREEMENT

IMPORTANT: THIS LICENSE AGREEMENT ("AGREEMENT") IS A LEGAL AGREEMENT BETWEEN YOU ("YOU") AND TAIS. CAREFULLY READ THIS LICENSE AGREEMENT. USE OF ANY SOFTWARE OR ANY RELATED INFORMATION (COLLECTIVELY, "SOFTWARE") INSTALLED ON OR SHIPPED WITH A TAIS DIGITAL SOLUTIONS PRODUCT OR OTHERWISE MADE AVAILABLE TO YOU BY TAIS IN WHATEVER FORM OR MEDIA, WILL CONSTITUTE YOUR ACCEPTANCE OF THESE TERMS, UNLESS SEPARATE TERMS ARE PROVIDED BY THE SOFTWARE SUPPLIER. IF YOU DO NOT AGREE WITH THE TERMS OF THIS LICENSE AGREEMENT, DO NOT INSTALL, COPY OR USE THE SOFTWARE AND PROMPTLY RETURN IT TO THE LOCATION FROM WHICH YOU OBTAINED IT IN ACCORDANCE WITH APPLICABLE RETURN POLICIES. EXCEPT AS OTHERWISE AUTHORIZED IN WRITING BY TAIS, THIS SOFTWARE IS LICENSED FOR DISTRIBUTION THROUGH TAIS AUTHORIZED CHANNELS ONLY TO END-USERS PURSUANT TO THIS LICENSE AGREEMENT.

If you **AGREE**, and would like to continue License Code Generation for **Strata CIX T02596FE** please click on the **FINALIZE** button below

If you **DISAGREE**, and would like to cancel this License Code Generation please click on the **CANCEL** button below

Finalize **Cancel**

8. The License Display Page displays all information for the generation. Copy (Ctrl C) and Paste (Ctrl V) the code into Network eManager.

Important! Be careful not to copy any blank spaces, either at the beginning or the end of the code.

- Maintain System Site Info can be used to update site information for maintenance reminders.
- Email the file to technicians by entering up to four email addresses and clicking Submit.
- Configuration Details can be viewed by clicking on the link.
- Click **Return** to generate another code or click the left navigation bar for other options.

fyi > License Display Page

The following refers to the license upgrade requested on, , for the phone system associated with serial # **T0100101**. The listed license parts and quantities, along with the previous configuration, are used to generate the following License. These functionalities are activated through the eManager.

****Important****

When entering a License Code into the eManager, start from the left with the first block of ten(10) characters. The code is case sensitive so enter the characters just as you see them on the screen. The code has been broken up into multiple blocks of 10 characters for visual purposes only. There must NOT be any spaces or dashes between characters.

[+ Reading License +](#)

Copy (ctrl-c) the license code below and paste (ctrl-v) it into the eManager

OQ01\$k82L8g0IO07p0Bc7w0ecB00eRg2wRo42Fw0Eg0qbNWCmM00vaw0aw2GIM00r08\$

Product Line: CTX100
Processor Part Num: ACTU3A
License code only valid for Serial #: **T0100101**
Required Software Version: 5.11
License Code Length: 68

Requestor: Magali Lamourelle (magali)
Dealer: TOSHIBA TELECOM DIVISION (09000100)

[Maintain System Site Info](#)

Email Addresses:

Transfer License

1. Click on License Codes and in the drop-down box click Inquires.

The screenshot shows the FYI user interface. At the top, it says "Welcome: Layman" and "Edit My Profile". On the left is a navigation menu with items: FYI Home, Purchasing, Maintenance, Finance, Sales, Marketing, Documentation, Technical Services, Software (Strata Sys.), Software (Voice Proc.), Training, Directories, License Codes, and Admin. Under "License Codes", there is a sub-menu with "Generation", "Inquiries", "Open License Summary", and "Oaisys Link". A red arrow points to "Inquiries". On the right, there is a promotional banner for "Call Center Solutions" with the text "New Pricing Makes Application Selling Easier!" and a list of features: 10 ACD Agents / Supervisors, 10 Net Phone Clients, 10 Chat Instant Messaging Clients, and myTASKE Reporter Software. A "Click to see all promotions >" link is at the bottom of the banner.

2. In the License Code Inquiry screen (shown next):
 - Select the Product Line.
 - Select the Generation For Replacement.

- For National Account, check the National Account box.
- Enter the old Serial # OR the MAC Address.
- Enter the new replacement Serial # OR the MAC Address.

Click **Submit**.

3. In the next screen, License Code Generator, enter the End User Site information (* are required fields).

License Type	Transfer Cfg	Maximum Cfg
TASKE Contact Base System for MAS	1	1
TASKE Contact Agent for MAS	1	350
HOLJESK	1	1

Activation will occur for Serial #: 1000010002 MAC Address (Internal Serial #): 08:00:00:04:00:02

End User Site Information
 Please enter or update the End User Site Information of the License System. Site Information will only be saved if provided forward and generation is finalized.

The following information helps our Sales and Support staff provide faster service to our Resellers. We will not contact the customer directly unless we have permission from the reseller. We will not send unsolicited e-mail to the customer contact.

* End User Site: Store 123
 * Address1: 123 Elm
 Address2:
 * City: City
 * State: State
 * Postal Code: 12345
 * Country: county
 * Phone: 122-555-5555
 Fax: 122-555-66633
 * Contact Name: John Doe
 * Contact E-mail: jdoe@test.com
Please enter the correct E-mail address since the license code generated from external vendors may be sent there directly.
 * Dealer Contact E-mail: test@test.com

Note: * indicates required fields.

Continue **Cancel**

Click **Continue**.

Licenses - SYSTEM, MAS, ACD

MAS License Generation, Inquiry and Summary for Dealers and National Accounts

- The License Agreement displays for you to read and agree.

fyi > License Code Generator

TOSHIBA AMERICA INFORMATION SYSTEMS, INC. ("TAIS")
Digital Solutions Division
LICENSE AGREEMENT

IMPORTANT: THIS LICENSE AGREEMENT ("AGREEMENT") IS A LEGAL AGREEMENT BETWEEN YOU ("YOU") AND TAIS. CAREFULLY READ THIS LICENSE AGREEMENT. USE OF ANY SOFTWARE OR ANY RELATED INFORMATION (COLLECTIVELY, "SOFTWARE") INSTALLED ON OR SHIPPED WITH A TAIS DIGITAL SOLUTIONS PRODUCT OR OTHERWISE MADE AVAILABLE TO YOU BY TAIS IN ANY MANNER, FORM OR MEDIA, WILL CONSTITUTE YOUR ACCEPTANCE OF THESE TERMS, UNLESS SEPARATE TERMS ARE PROVIDED BY THE SOFTWARE SUPPLIER. IF YOU DO NOT AGREE WITH THE TERMS OF THIS LICENSE AGREEMENT, DO NOT INSTALL, COPY OR USE THE SOFTWARE AND PROMPTLY RETURN IT TO THE LOCATION FROM WHICH YOU OBTAINED IT IN ACCORDANCE WITH APPLICABLE RETURN POLICIES. EXCEPT AS OTHERWISE AUTHORIZED IN WRITING BY TAIS, THIS SOFTWARE IS LICENSED FOR DISTRIBUTION THROUGH TAIS AUTHORIZED CHANNELS ONLY TO END-USERS PURSUANT TO THIS LICENSE AGREEMENT.

If you **AGREE**, and would like to continue License Code Generation for **Strata CTX T02596FE** please click on the **FINALIZE** button below

If you **DISAGREE**, and would like to cancel this License Code Generation please click on the **CANCEL** button below

Finalize **Cancel**

Click **Finalize**.

- The License Display Page displays all information for the generation. This page explains that a transfer was generated from one serial # to another.

The following refers to the license upgrade requested on , for the phone system associated with serial # **10000 10002**. The listed license parts and quantities, along with the previous configuration, are used to generate the following License. These functionalities are activated through the eManager.

****Important****
The license file must be either downloaded or e-mail. Select your option below

Product Line:	MAS
Processor Part Num:	MAS-711-XPPRO
License Parts and Configuration transferred from serial number:	1000010001
License code only valid for Serial #:	10000 10002
Required Software Version:	DEFAULT

Requestor: Pam Layman (pam)
Dealer: TOSHIBA TELECOM DIVISION (00000100)

[Maintain System Site Info](#)

License Code: **Download License File**

-OK-

Email Addresses:

<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Submit

- Email the file to technicians by entering up to four email addresses and clicking **Submit**.
- Click **Return** to generate another code or click the left navigation bar for other options.

License Inquiry

1. Click on License Codes and in the drop-down box click on Inquiries.



2. You can inquire on the Serial # OR MAC Address.

The screenshot shows the 'License Code Inquiry' form. It has two sections. The first section is 'License Code Inquiry - Serial#' with a 'National Account' checkbox. It contains two input fields: 'Serial #' with the value 'T02596FE' and 'MAC Address'. A red 'Submit' button is below these fields. The second section is 'License Code Inquiry - Order#' with an 'Order #' input field containing the value '100173' and a red 'Submit' button below it.

Click **Submit**.

3. The License Display Page displays all information for the generation. By clicking on the down arrow in the Date Box and highlighting a date, the generation for that date displays. Or you can enter the Order # (shown next page).
 - Configuration Details can be viewed by clicking on the link.
 - Maintain System Site Info can be used to update site information that is used for maintenance reminders.

fyi > License Display Page

The following refers to the license upgrade requested on, , for the phone system associated with serial # **T0100101**. The listed license parts and quantities, along with the previous configuration, are used to generate the following License. These functionalities are activated through the eManager.

Important

When entering a License Code into the eManager, start from the left with the first block of ten(10) characters. The code is case sensitive so enter the characters just as you see them on the screen. The code has been broken up into multiple blocks of 10 characters for visual purposes only. There must NOT be any spaces or dashes between characters.

[+ Reading License +](#)

Copy (ctrl-c) the license code below and paste (ctrl-v) it into the eManager

OQ01\$k82L8g0iO07p0Bc7w0ecB00eRg2wRo42Fw0Eg0qbNWCmM00vaw0aw2GIM00r08\$

Product Line: CTX100
Processor Part Num: ACTU3A
License code only valid for Serial #: **T0100101**
Required Software Version: 5.11
License Code Length: 68

Requestor: Magali Lamourelle (magali)
Dealer: TOSHIBA TELECOM DIVISION (09000100)

[Maintain System Site Info](#)

Email Addresses:

Submit

fyi > License Code Inquiry

License Code Inquiry - Serial#

National Account

Serial # OR MAC Address

Submit

License Code Inquiry - Order#

Order #

Submit

Click **Submit**.

Licenses generated from the order number display as shown below. Click on the red Generation Time to display details.

fyi > License Code Inquiry - Order#

Order #: 100173

System#	Serial#	Dealer#	Processor	Generation Time
27388	0070RKA8BE	09000100	MAS	09/15/2006 - 04:09:24
27389	T02596FE	09000100	CTX100	09/18/2006 - 10:09:30

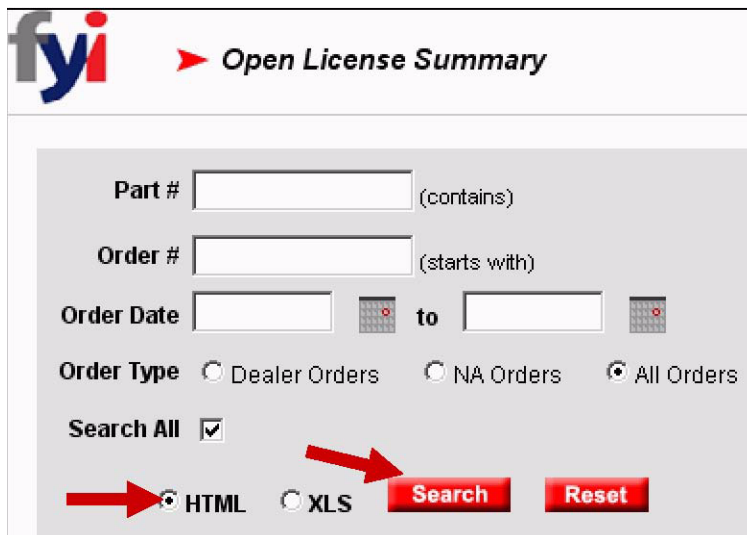
Return

Open License Summary

1. Click on License Codes and in the drop down box click on Open License Summary.



2. Search by any option or simply check the Search All box and click Search.
 - To view the license use HTML format.
 - To save to another file use the XLS format.



3. Find the license you want and click on the red Part Num. Click Expand Orders Lists to see all order numbers.

Toggle the "Part Num" to view / hide the order lists and click on the "Order Num" to view the License Order Page.

[Expand Order Lists](#) [Close Order Lists](#)

Part Num	Part Desc	Purchased Qty	Adjusted Qty	Consumed Qty	Available Qty
LIC-SOFTDKT-1	CTX SOFTDKT LICENSE	100	0	0	100
LIC-4 BASIC	LICENSE-EA 4 STA/CO PORTS	100	0	2	98
LIC-4 DTMF	LICENSE-4 DTMF RCVRS EACH	100	0	0	100
LIC-CIX	LICENSE-CIX	100	0	0	100
LIC-4 BASIC	LICENSE-EA 4 STA/CO PORTS	100	0	2	98

[Expand Order Lists](#) [Close Order Lists](#)

Part Num	Part Desc	Purchased Qty	Adjusted Qty	Consumed Qty	Available Qty		
LIC-SOFTDKT-1	CTX SOFTDKT LICENSE	100	0	0	100		
Order Num	Order Date	Purchased Qty	Adjusted Qty	Consumed Qty	Available Qty	Card Num	Orig Dealer
989888	05/15/2005	100	0	0	100	090009 00	99000700
LIC-4 BASIC	LICENSE-EA 4 STA/CO PORTS	100	0	2	98		
Order Num	Order Date	Purchased Qty	Adjusted Qty	Consumed Qty	Available Qty	Card Num	Orig Dealer
989888	05/15/2005	100	0	2	98	090009 00	99000700

ACD Dongle License

Important! Pop-Up Blockers must be disabled before beginning this process.

National Accounts License Codes can be generated by either the originating or installing dealer. To generate a license code, you need the Order # for the license and the Serial # of the ACD Dongle.

- Order # – An Order # is issued to your dealership for every order placed. You need to obtain the applicable license order #. The order MUST be placed on FYI, passed through credit and the invoice generated before the license can be generated (please allow 24 hours).
- Serial # - The Serial # is located on a sticker on the dongle. FYI License Code Generation Help Desk: (800) 645-6078.

1. Click on License Codes. A drop-down box appears.



- Click on Generation. The first License Code Generator screen appears. Enter the information as follows:
 - Choose Product Line: ACD Dongle
 - License Generation Type: Standard Generation
 - Check National Account if applicable
 - Enter the Order #
 - Enter the ACD Dongle Serial #

The screenshot shows the 'License Code Generator' form with the following fields and values: 'Choose Product Line' is set to 'ACD Dongle', 'License Generation Type' is 'Standard Generation', 'National Account' is unchecked, 'Order #' is '888888', 'Serial #' is '200701123456', 'Replacement Serial #' is empty, and 'Software Version' is 'DEFAULT'. A 'Submit' button is at the bottom right. Red arrows point to each of these fields.

Click **Submit**.

If a serial number is entered that does not belong to your dealership, the warning below will display. If you re-enter the serial number it will allow you to continue (however, once the license has been generated, it CAN-NOT be returned or refunded).

- Click Cancel to go back, or re-enter the Serial # and click Continue.

The screenshot shows a warning message in a red-bordered box: 'Serial number 000000001 does not belong to your dealership. Please verify this serial number against the serial number on the chassis. If you mistakenly apply licenses to invalid systems, unfortunately those licenses are not refundable.' Below the message, it says 'If this is the correct serial number, please re-key it below to verify to continue or [click here](#) to cancel.' There are 'Cancel' and 'Continue' buttons, with a 'Serial #' input field between them. Red arrows point to the 'Cancel' and 'Continue' buttons.

Another License Code Generator page displays giving the number of licenses Purchased, licenses still Available, Current Cfg and Max Cfg.

Order # 102157 consists of the following license related products.
Please choose the part # and quantity desired for License Code Generation.

Purch	Avail	Part #	Description	Current Cfg	Max Cfg	Activate Qty
9	2	LICMAS-FF-HDSK	FF HOTDESK	0	1	<input type="text"/>
9	2	LICMAS-FF-SRNG	FF SIMULTANEOUS RING	0	1	<input type="text"/>

Activation will occur for Serial #: 000000001 MAC Address: 00:00:00:00:01

Site Description (optional)

Install Instructions (optional)

4. Enter the quantity of licenses to be activated under Activate Qty.

Note If this is a National Account, the Activate Qty field is already populated and cannot be altered.

Site Description and Install Instructions fields are designed for you to enter information to assist you.

Click **Submit**.

5. Enter the End User Site information (* are required fields).Click Continue.

End User Site Information

Please enter or update the End User Site Information of the License System.
Site Information will only be saved if proceed forward and generation is finalize.

The following information helps our Sales and Support staff provide faster service to our Resellers. We will not contact the customer directly unless we have permission from the Reseller. We will not send unsolicited e-mail to the customer contact.

* End User Site

* Address1

Address2

* City

* State

* Postal Code

* Country

* Phone

Fax

* Contact Name

* Contact E-mail

Please enter the correct E-mail address: since the license code generated from external vendors may be sent there directly.

* Dealer Contact E-mail

Note: * indicates required fields.

6. Verify information and click Finalize.

fyi > License Code Generator

A license code will be generated with the following upgrades

Part #	Description	Upgrade Qty	End Qty
LICMAS-ACDYA	MAS VA PORT	0	1
LICMAS ACDBA10	MAS ACD BAS SW (10A 1VA)	0	1
LICMAS-FF-HDSK	FF HOTDESK	1	1

[+ Configuration Details +](#)

Activation will occur for Serial #: **000000001** MAC Address: **00:00:00:00:01**

Finalize **Reset** **Cancel**

7. The License Agreement will display for you to read and agree. Click **Finalize**.

fyi > License Code Generator

TOSHIBA AMERICA INFORMATION SYSTEMS, INC. ("TAIS")
Digital Solutions Division
LICENSE AGREEMENT

IMPORTANT: THIS LICENSE AGREEMENT ("AGREEMENT") IS A LEGAL AGREEMENT BETWEEN YOU ("YOU") AND TAIS. CAREFULLY READ THIS LICENSE AGREEMENT. USE OF ANY SOFTWARE OR ANY RELATED INFORMATION (COLLECTIVELY, "SOFTWARE") INSTALLED ON OR SHIPPED WITH A TAIS DIGITAL SOLUTIONS PRODUCT OR OTHERWISE MADE AVAILABLE TO YOU BY TAIS IN WHATEVER FORM OR MEDIA, WILL CONSTITUTE YOUR ACCEPTANCE OF THESE TERMS. UNLESS SEPARATE TERMS ARE PROVIDED BY THE SOFTWARE SUPPLIER, IF YOU DO NOT AGREE WITH THE TERMS OF THIS LICENSE AGREEMENT, DO NOT INSTALL, COPY OR USE THE SOFTWARE AND PROMPTLY RETURN IT TO THE LOCATION FROM WHICH YOU OBTAINED IT IN ACCORDANCE WITH APPLICABLE RETURN POLICIES. EXCEPT AS OTHERWISE AUTHORIZED IN WRITING BY TAIS, THIS SOFTWARE IS LICENSED FOR DISTRIBUTION THROUGH TAIS AUTHORIZED CHANNELS ONLY TO END-USERS PURSUANT TO THIS LICENSE AGREEMENT.

If you **AGREE**, and would like to continue License Code Generation for **Strata CTX T02596FE** please click on the **FINALIZE** button below

If you **DISAGREE**, and would like to cancel this License Code Generation please click on the **CANCEL** button below

Finalize **Cancel**

8. The License Display Page displays all information for the generation. Enter the required information as follows:

fyi > License Display Page

The following refers to the license upgrade requested on, JAN 17, 2008 12:33, for the phone system associated with serial # 0*1234567. The listed license parts and quantities, along with the previous configuration, are used to generate the following License. These functionalities are activated through the Copy Key Upgrader.

CAUTION * This license string requires ACD software NetServer 4.3.46F or higher. Please upgrade ACD software before applying the license.

Important

1) For ACD License, copy and paste the License String displayed in the box below into the Copy Key Upgrader.
2) For TASKE License, click on the "Download License File" button to download the binary license file.

Strata ACD License String
d4eMgCuquN17jqCVZiCwdKyhqIDGcl7Fu2LTew5Usj0wj8f0tdVN2ilwVnjsyK0q+p5GJdriSRANDecoqmqG3
qWt389xGExnmAlgxMREJelWtXBg==

TASKE License File
Download License File

Product Line: ACD Dongle
Processor Part Num: ACD-STARTER
License code only valid for Serial #: 0*1234567
Required Software Version: DEFAULT
License Code Length: 120

Expiration Date
Strata ACD -- Maintenance Date: 01-17-2009

Requestor: Magali Lamourelle (magali)
Dealer: TOSHIBA TELECOM DIVISION (09000100)

Maintain System Site Info
Email Addresses:

Submit

Part #	Description	Order #	Ord Qty Activated	Config QTY
ACD-APP-HQ	ADV PARTNER PROGHQ	888888	1	1
CT-TASKE-BASE	TASKE BASE SYSTEM	888888	1	1

* Configuration Details +
* Vendor Feature Products +
Return View Apps

- Copy (Ctrl C) and Paste (Ctrl V) the code into Network eManager.

Important! Be careful not to copy any blank spaces, either at the beginning or the end of the code.

- For TASKE License, click Download License File or Maintain System Site Info can be used to update site information for maintenance reminders.
- Email the file to technicians by entering up to four email addresses and clicking **Submit**.
- Configuration Details can be viewed by clicking on the link.
- Click **Return** to generate another code or click the left navigation bar for other options.

R5 License Generation for CIX100, CIX670 and CIX1200

Upgrading from R4 to R5 software is a straight forward process. To upgrade from R3 to R5 you must first upgrade from R3 to R4.

To generate a Release 5 license for a CIX100, CIX670 or CIX1200:

1. Login to the Toshiba FYI web site.
2. Select License Codes -> Generation.
3. Enter your dealer number.
4. Under Choose Product Line select 100, 200, 670 or 1200.
5. Under Select Version choose 5.x.
6. Then select Standard Generation or Generation for Replacements (must be same processor type).

Note Please notice that the new license string will have additional characters. You must use Network eManager 5 or later to apply the license to the system.

Strata CIX System Licenses

These are the licenses are for the Strata CIX system. Licenses for the MAS and the ACD dongle are in following sections.

IP5022-SD-LIC

Bundle includes 10-button IP telephone with 4-line LCD, LIC-CIX-IP PORT Endpoint License, AC local power supply. Color - Black. Telephone uses 1-channel on MIPU or LIPU/LIPS in Strata CIX100/200/670, or 1-channel on GIPU8, MIPU or GIPH in CIX40.

IP5122-SDC-LIC

Bundle includes 10-button IP telephone with analog loop start line interface for connection to local Central Office and 4-line Backlit LCD, LIC-CIX-IP PORT Endpoint License, AC local power supply. Color - Black. Telephone uses 1-channel on MIPU or LIPU/LIPS in Strata CIX100/200/670, or 1-channel on GIPU8 or MIPU or GIPH in CIX40.

IP5122-SD-LIC

Bundle includes 10-button IP telephone with 4-line Backlit LCD, LIC-CIX-IP PORT Endpoint License, AC local power supply. Color - Black. Telephone uses 1-channel on MIPU or LIPU/LIPS in Strata CIX100/200/670, or 1-channel on GIPU8 or MIPU or GIPH in CIX40.

IP5131-SDL-LIC

Bundle includes 10-button IP telephone with 9-line Backlit LCD and key labels, LIC-CIX-IP PORT Endpoint License, AC local power supply. Color - Black. Telephone uses 1-channel on MIPU or LIPU/LIPS in Strata CIX100/200/670, or 1-channel on GIPU8 or MIPU or GIPH in CIX40.

IP5132-SD-LIC

Bundle includes 20-button IP telephone with 4-line Backlit LCD, LIC-CIX-IP PORT Endpoint License, AC local power supply. Color - Black. Telephone uses 1-channel on MIPU or LIPU/LIPS in Strata CIX100/200/670, or 1-channel on GIPU8 or MIPU or GIPH in CIX40.

LIC100S-8 PORTS

8-port Line/Station License CIX100S (17-24/25-32 Ports).

Required for CO Line/Station Ports 17-24 and 25-32 on a ACTU2A-S or ACTU3A-S processor.

LIC100-STRATA N

CIX/CTX100 Strata Net Networking Application License.

One per CTX or CIX 100 system (node) required to network multiple systems using Strata Net networking.

LIC1200STRATA N

CIX1200 Strata Net system license.

Enables unlimited Strata Net channels on a CIX1200 system. Valid on HCTU1A processor only.

LIC-1-DP5022SDM

License to allow DP5022-SDM to operate on CIX100, CIX200, CIX670.

The DP5022-SDM operates on CIX40 without this license. This license is required for DP5022-SDM to operate on CIX100, CIX100-S, CIX200 and CIX670 systems. This license can only be applied to aforementioned systems running CIX RIs 5.1 or higher software. It must be ordered on FYI and applied to the CIX processor as any other CIX license.

LIC-2 GVPH

2-port GVPH License for Strata CIX40 Systems.

Enables 2 additional VM ports on a GVPH1A Voice Processing card. The CIX40 software enables 4 GVPH ports by default, the LIC-2 GVPH is used to enable 2 additional ports with each license up to 8 GVPH ports maximum. The LIC-2 GVPH can only be applied to CIX40 processors with R5.1 software and above. This license can be used on CIX40 R1 and R2 cabinets with R5.1 software. This license can be used on GVPH1A V1 and V2 circuit cards.

LIC-2 LVMU

2-port LVMU License for Strata CIX Systems.

Enables 2 additional VM ports on an LVMU1A card. The CIX R4.2 processor enables 2 LVMU ports by default, the LIC-2 LVMU is used to enable 2 additional port with each license up to 8 LVMU ports maximum. The LIC-2 LVMU can be only applied to CIX processors with R4.2 software and above.

LIC200-STRATA N

CIX200 Strata Net Networking Application License.

One per CIX 200 system (node) required to network multiple systems using Strata Net networking.

LIC-2P-VM-MAS-H

Two Voice Mail Port License for MicroMAS with HMP 3.0.

Increments the voice mail port allotment of a MicroMAS-H equipped with Dialogic Host Media Processing (HMP) Version 3.0. MAS systems running HMP 1.1 must first install HMP 3.0 prior to applying this license. Failure to do so will cause a disruption in service.

LIC-4 BASIC

4-port CO Line/Station License for Strata CIX/CTX Systems.

Required for every 4 ports used for CO lines, DKT or SLT stations, Attendant Consoles, voice mail ports, Strata Net channels, and ACD announcement ports beyond the ports bundled with the system processor.

LIC-4 DTMF

4-port DTMF Receiver License for Strata CIX/CTX Systems.

Required for activation of 4 DTMF receiver ports number 5 and above on system. Maximum is determined by the CTU card in use.

LIC-4P-VM-MAS

Four Voice Mail Port License for MAS with HMP 3.0.

Increments the voice mail port allotment of a Media Application Server equipped with Dialogic Host Media Processing (HMP) Version 3.0. MAS systems running HMP 1.1 must first install HMP 3.0 prior to applying this license. Failure to do so will cause a disruption in service.

LIC670-STRATA N

CIX/CTX670 Strata Net Networking Application License.

One per CTX or CIX 670 system (node) required to network multiple systems using Strata Net networking.

LIC-ACD

ACD Server License for Strata CIX and CTX Systems.

Required to activate ACD support in a Strata CIX/CTX system (one license is included in ACD turnkey packages and software packages). One license is required for each CIX system in the network ACD system. Also required for Tracer and Talkument system if ACD or Net Phone is not installed.

LIC-ATT

Attendant Console License for Strata CIX and CTX Systems.

One license is required to activate each Attendant Console on a Strata CIX or CTX system. This license is also bundled with Toshiba supplied Attendant Console PCs CIX-IPATTCONS and CTX-ATTCONSOLE2 so it is NOT necessary to order the LIC-ATT for these parts. LIC-ATT should only be ordered separately when using a Dealer or customer supplied PC for the Attendant Console. This license can be used for the Attendant Console with an IP or Digital talk path. Attendant Console Software and Documentation is available for download on TSD FYI.

LIC-CIX-FF

FeatureFlex license for Strata CIX.

Strata CIX license to activate FeatureFlex. Requires one per CIX system to run FeatureFlex applications.

LIC-CIX-IP PORT

IP Endpoint License for Strata CIX.

IP Endpoint License required per IP telephone connected to LIPU/S-X.

LIC-CIXR3.1-VCS

VCS System License for CIX R3.1.

VCS system license for CIX R3.1 system. This license can be used with CIX R4.0 but R4.0 customers are encouraged to upgrade to R4.1. This license is not needed with CIX R.4.1 or later release.

LIC-CIX-SIPT-CH

License for one SIP Trunk channel.

One required for each SIP Trunk. SIP Trunk licenses are supported by CIX40, CIX100, CIX100-S, CIX200 and CIX670 and requires CIX R5.1 MS18 or higher software. SIP Trunking is only supported by the MIPU card with version MIPU01_07 or higher. eManager R5.1 A07 or higher is required to program SIP Trunking.

LIC-CIX-STRN-CH

License for one Strata Net Channel.

One required for each Strata Net channel when the Strata Net system license (LIC100-SRTATA-N, LIC200-SRTATA-N, LIC670-SRTATA-N) is not used. Strata Net Channel licenses are supported by CIX40, CIX100, CIX100-S, CIX200 and CIX670 and requires CIX R4.1 software. Note: All CIX40 systems support LIC-CIX-STRN-CH licenses but do not support Strata Net System licenses.

LIC-HMP3.0-UPG

HMP 3.0 Upgrade System License.

One time system license to upgrade any Media Application Server to HMP 3.0. This license must be purchased in order to upgrade an existing HMP 1.1 equipped system to HMP 3.0. After May 2, 2008, all installed MAS systems, that require additional voice mail or voice assistance ports, must be first upgraded to HMP 3.0 before applying additional port licenses. This applies to 1U and 2U Standard MAS systems and MicroMAS-H platforms. MicroMAS-D platforms DO NOT require this upgrade.

LIC-SER PORT

Serial Port License required for 2nd BSIS Port on Strata CIX/CTX.

One each required to activate serial ports 2~4 in Strata CTX and CIX systems (license for serial port 1 included with BSIS).

LIC-SOFTIPT

License for one SoftIPT user on Strata CIX/CTX systems.

1 required for each SoftIPT application interfaced to the Strata CTX or CIX. 1 LIPU-X or LIPS-X or BIPU-M port required for each SoftIPT. Requires IP endpoint license when connected to LIPU/S-X.

LIC-VCSBASIC5

VCS Starter - 1 Server License (No Charge), 5 User License.

This includes the VCS Server license and 5 User licenses. Add additional User licenses as needed.

LIC-VCSTRIAL

VCS 90 Day Trial License - 1 Server License, 512 User Licenses.

90 Day period starts from the day the license key is issued from FYI. You can purchase and activate permanent server and user licenses before the trial license expires.

LIC-VCSUSER1

1 VCS User License.

1 additional VCS User License beyond the 5 included with the VCS Server license.

LIC-VCSUSER10

10 VCS User License.

10 additional VCS User Licenses beyond the 5 included with the VCS Server license.

LIC-VCSUSER20

20 VCS User License.

20 additional VCS User Licenses beyond the 5 included with the VCS Server license.

MAS Licenses

LICMAS-ACDBRA

MAS Advanced Partner Program ACD Demo SW.

Includes ACD software with 2-port Voice Assistant and HMP license (LICMAS-ACDBR2), Taske Contact demo license (LICMAS-TASDEMO) and LIC-ACD. Requires Media Application Server with Strategy voice mail.

LICMAS-ACDIVR

MAS OASISYS IVR Option with Database Assistant & Text Reader.

Provides IVR operation with customer's existing ODBC database. Requires custom development quote from Computer Telephony Solutions, Inc. to create the IVR application. Requires Strata ACD for MAS.

LICMAS-ACDVA2

MAS VA port license with HMP license.

1 VA port license and 1 HMP license used for announcement. Requires MAS based ACD system.

LICMAS-APPLSWB

MAS ACD Application SW Pack.

Strata ACD application SW package includes LICMAS-APPLSW2 (Basic 10 agent, 1 VA port/HMP, 10 NetPhone) and CIX license (LIC-ACD). Requires Media Application Server with Strategy Voice Mail system.

LICMAS-BAADDL1

MAS Single basic agent license. One additional basic agent license

LICMAS-CALLRUTR

MAS Call Router License for Strata ACD. Provides advanced call routing capabilities for ACD or CTI applications. Requires Strata ACD for MAS.

LICMAS-CHATSEAT

MAS Chat Text Messaging License. Provides Text Messaging capabilities. Requires Strata ACD for MAS. One license is required for each user.

LICMAS-D-2P-UPG

MicroMAS-D 2 port upgrade. Upgrades a MicroMAS-D by 2 voice mail ports. Dialogic boards sold separately.

LICMAS-DACDBRA

MAS ACD Demo SW - Branches for Micro MAS-D. Includes ACD software with 2-port Voice Assistant (LICMAS-ACDBR1), Taske Contact Demo (LICMAS-TAS-DEMO) and LIC-ACD. Requires Media Application Server with Stratagy voice mail and available ports on Dialogic D4PCI card.

LICMAS-DACDVA

MAS VA port for Micro MAS-D. One Voice Assistant license for MicroMAS-D system required per announcement port. Requires Strata ACD application package (Strata ACD Server or OAISYS Net Server).

LICMAS-DAPPLSWB

MAS ACD Application SW Pack for Micro MAS-D. Strata ACD application SW package includes LICMAS-DAPPLSW1 (Basic 10 agent,1 VA port, 10 NetPhone) and CIX license (LIC-ACD). Requires Media Application Server with Stratagy Voice Mail system and available D4 PCI card.

LICMAS-ENADDL1

MAS Single enhanced agent license. One additional enhanced agent license

LICMAS-FF-ACLK

FeatureFlex application license for FF Alarm Clock. Application license to run FeatureFlex Alarm Clock application to provide the alarm clock function on the DKT and IPT phone. Requires one per system.

LICMAS-FF-APBD1

FeatureFlex application license for FF Application Bundle #1. FeatureFlex application license bundle that includes FF Call Monitor, FF Call Return, FF Alarm Clock, FF One Number Access, and FF Call Screen. Requires one per system.

LICMAS-FF-CMON

FeatureFlex application license for FF Call Monitor. Application license to run FeatureFlex Call Monitor application which enables the user to listen to the voice message being recorded by the caller. Requires one per system. Requires MAS or MicroMAS-H.

LICMAS-FF-CRET

FeatureFlex application license for FF Call Return. Application license to run FeatureFlex Call Return application which enables the user to respond to the caller while listening to the message and return to the voice mail. Requires one per system.

LICMAS-FF-CSCR

FeatureFlex application license for FF Call Screen.

Application license to run FeatureFlex Call Screen application where the call is screened selectively by the caller ID. Requires one per system.

LICMAS-FF-HDSK

FeatureFlex application license for FF HotDesk.

Application license to run FeatureFlex HotDesk application where the shared office user can use any phone for the user's published directory number. Requires one per system.

LICMAS-FF-ONUM

FeatureFlex application license for FF One Number Access.

Application license to run FeatureFlex One Number Access application where the system contacts multiple destinations sequentially to reach the party. Requires one per system.

LICMAS-FFOPEN

FeatureFlex open license.

FeatureFlex runtime license to run 3rd party or plain script FeatureFlex applications. Not required for Toshiba FeatureFlex applications. Requires one per system.

LICMAS-FF-PCH

FeatureFlex application license for FF Personal Call Handler.

Promotion price is valid through December 31, 2008.

LICMAS-FF-SRNG

FeatureFlex application license for FF Simultaneous Ring.

Application license to run FeatureFlex Simultaneous application where the incoming call rings both the desk phone and one more phone such as cell phone, specified by the user. Requires MAS or MicroMAS-H.

LICMAS-FF-SUPD

FeatureFlex application license for FF Security Code Update.

Application license to run FeatureFlex Security Code Update application that prompts user for the new security code periodically to provide the better security.

LICMAS-FG-FAX

MAS Fax Feature Group License.

Enables the fax feature on all MAS systems. Actual number of available fax ports predicated by what the installed fax hardware (e.g. fax modem boards or D/4PCIU-F) supports.

LICMAS-INSAP10

MAS Insight for application pack.

Insight-CIX for 10 agent. Includes one supervisor license. An agent can be added by INSIGHT-APBAG1. Can be upgraded to INSIGHT Plus by appropriate quantity of LICMAS-INSPUP1.

LICMAS-INSBAG1

MAS additional basic agent for Insight application pack.

One Insight basic agent license to be included in the realtime display and reporting for MAS Insight for application pack.

LICMAS-INSIGHT

MAS Insight license.

Includes the license to activate Insight for MAS. Requires Strata ACD for MAS.

LICMAS-INSITSUB

MAS additional Supervisor license for Insight Plus.

Includes the license to activate additional one Supervisor for Insight for MAS. Requires Insight Plus for MAS.

LICMAS-INSITUPG

MAS Insight upgrade to Plus for Strata ACD.

Includes the license to upgrade to Insight Plus. Requires Insight for MAS.

LICMAS-INSPAG1

MAS additional Plus agent for Insight Application pack.

One agent license to be included in the realtime display and reporting for MAS Insight Plus for application pack.

LICMAS-INSPUP1

MAS agent upgrade to Insight Plus.

Upgrades a basic Insight agent to MAS Insight Plus agent. All basic agents need to be upgraded to Insight Plus.

LICMAS-INVIEW1

MAS inView client license for one user.

Includes the license to activate one concurrent inView client.

LICMAS-INVIEW10

MAS inView client license for ten users.

Includes the license to activate ten concurrent inView clients.

LICMAS-INVIEW20

MAS inView client license for twenty users.

Includes the license to activate twenty concurrent inView clients.

LICMAS-INVIEW30

MAS inView client license for thirty users.

Includes the license to activate thirty concurrent inView clients.

LICMAS-INVIEW40

MAS inView client license for forty users.

Includes the license to activate forty concurrent inView clients.

LICMAS-INVIEW5

MAS inView client license for five users.

Includes the license to activate five concurrent inView clients.

LICMAS-INVIEW50

MAS inView client license for fifty users.

Includes the license to activate fifty concurrent inView clients.

LICMAS-NETPHACD

MAS ACD add-on to Net Phone package.

Includes Strata ACD system with 10 basic agents and no VA port. This is only applicable an add-on to a Net Phone system (LICMAS-NETPHSW). Add necessary number of VA port separately (LICMAS-ACDVA2/LICMAS-DACDVA).

LICMAS-NETPHSWB

MAS Net Phone server and 10 client license.

Includes the CIX license (LIC-ACD) and Net Server and 10 client license (LICMAS-NETPHSW). Requires the MAS. MicroMAS-H or MicroMAS-D.

LICMAS-NETPH-VO

MAS voice plug-in for NetPhone.

Voice plug-in license to support VoIP for NetPhone for MAS. Requires the NetPhone license (LICMAS-NETSEAT) as well as IP end point license (LIC-CIX-IP-PORT).

LICMAS-NETSEAT

MAS NetPhone and chat license.

Provides desktop call control, PC phone functionality, and Chat text messaging capabilities. Requires Strata ACD for MAS. One license is required for each user.

LICMAS-NETST10

MAS Net Phone 10 client license pack.

Includes Net Phone 10 client license. Requires the MAS Strata ACD system or Net Phone system.

LICMASSFGTTSETI

Text-To-Speech Feature Group for MAS.

This Feature Group for the Media Application Server uses ETI Eloquence TTS to provide 2 channels of Text To Speech for reading email messages. REQUIRES Release 4 Stratagy ES/iES32 system software and the Unified Messaging (UM) Feature Group to be installed. Max. 8 Channels.

LICMAS-SUP-OAI

MAS Maintenance support.

Covers annual ongoing support for Call Router, Net Phone, and Chat per MAS after the warranty period. This includes all software upgrades and technical support during the covered period. Specify number of years. Please contact Customer Service to place an order.

LICMAS-TASAGENT

MAS TASKE Contact Agent. License to add an agent in TASKE reporting for MAS.

LICMAS-TASAGNTP

TASKE Contact agent for promo bundle.

License to add an agent in TASKE reporting. Available only when ordered with the Taske promo bundle (LICMAS-TASPROMO). Valid through March 31, 2009.

LICMAS-TASBASEP

MAS TASKE Contact system.

TASKE Contact software package includes 20 agents, 1 supervisor, 1 DisplayCentral, 1 Desktop and 1 year free upgrades/tech support. Valid through March 31, 2009.

LICMAS-TASCONA

MAS Taske Contact maintenance - Per Agent.

Annual maintenance for ongoing support and free upgrades for TASKE for MAS. Required LICMAS-TASCONB.

The quantity must match with the number of licensed agents. If the system is out of maintenance for more than 3 months, LICMAS-TASCONR must be purchased and activated at the same time. NOTE: Taske maintenance parts are now manual order items and the orders must be processed by a Customer Service Representative (CSR).

Download the TASKE Maintenance Order Form from FYI > Tools > Forms > Miscellaneous. Simply fill out the form and send to a CSR.

LICMAS-TASCONB

MAS Taske Contact maintenance - Base Renewal.

Annual maintenance for ongoing support and free upgrades for smaller sites (guideline: less than 150 agents) for TASKE for MAS. If the system is out of maintenance for more than 3 months, LICMAS-TASCONR must be purchased and activated at the same time. NOTE: Taske maintenance parts are now manual order items and the orders must be processed by a Customer Service Representative (CSR). Download the TASKE Maintenance Order Form from FYI > Tools > Forms > Miscellaneous. Simply fill out the form and send to a CSR.

LICMAS-TASCONR

MAS Taske Contact maintenance - Re-enlist Site.

Order 1 if the maintenance for the license on your site has been expired for at least 3 months for TASKE for MAS. Must be activated with LICMAS-TASCONA/TASCONB. NOTE: Taske maintenance parts are now manual order items and the orders must be processed by a Customer Service Representative (CSR). Download the TASKE Maintenance Order Form from FYI > Tools > Forms > Miscellaneous. Simply fill out the form and send to a CSR.

LICMAS-TASCONS

MAS Taske Contact maintenance - Per Site.

Annual maintenance for ongoing support and free upgrades. Recommended for larger TASKE Site (guideline: more than 150 agents) in lieu of the Base plus agent model for TASKE for MAS. If the system is out of maintenance more than 3 months, LICMAS-TASCONR must be purchased and activated at the same time. NOTE: Taske maintenance parts are now manual order items and the orders must be processed by a Customer Service Representative (CSR). Download the TASKE Maintenance Order Form from FYI > Tools > Forms > Miscellaneous. Simply fill out the form and send to a CSR.

LICMAS-TASDC1

MAS Taske Display Central.

Single Display Central license for Taske Contact for MAS to show realtime statistics and/or external data on the computer screen such as large LCD/plasm display. May be used as the replacement of wall mount display.

LICMAS-TASDESUP

MAS Taske Desktop Advance upgrade per Taske Desktop.

Taske Desktop upgrade to Advance for screen pop and other automated tasks. Quantity must be same as the number of Taske Desktop license.

LICMAS-TASECLI

MAS Taske Essential Supervisor client.

Taske Essential supervisor client license for realtime status display and reporting

LICMAS-TASEEXTN

MAS Taske Essential Extension. Adds 50 extension to Taske Essential

LICMAS-TASENTER

MAS TASKE Enterprise Client Software for MAS.

Allows the supervisor to manage multiple contact centers simultaneously. Requires TASKE Contact for MAS at each site and a TCP/IP network connection.

LICMAS-TASESSB

MAS Taske Essential Base.

Taske Essential Base license to support up to 50 extensions with 1 supervisor client license. Requires ACD or Net Phone system.

LICMAS-TASESUP

MAS Taske Essential annual maintenance.

Taske Essential annual maintenance service allows the software upgrade and the technical support after the initial year

LICMAS-TASLBWF

MAS TASKE Contact Left Bank integration.

Provides an interface between TASKE Contact and Left Bank Solutions Monet for MAS. Used to transfer historical data for forecasting and scheduling and real-time data for agent adherence.

LICMAS-TASLICUP

MAS license for the latest release of Taske Contact or Reporter.

Retrieves the license for the latest version of Taske Contact or Taske Reporter software. The Taske system must be under the valid maintenance.

LICMAS-TASMTTP

MAS Taske Reporter promo.

Taske Reporter, web based reporting promo license includes 20 agents and 1 supervisor. Requires Strata MAS ACD or Voice mail system. Valid through October 30, 2008.

LICMAS-TASMTSUP

MAS myTaskeReporter additional supervisor.

Additional supervisor client license for myTaskeReporter for MAS.

LICMAS-TASMTUPP

MAS Taske Reporter promo upgrade to Contact.

Taske Reporter promo (LICMAS-TASMTTP) upgrade to Taske Contact Promo package. Valid through October 30, 2008.

LICMAS-TASNETP

MAS Taske Contact Net Phone/Tracer integration.

Adds Net Phone/Oaisys Tracer integration capability to Taske Contact so that Taske web client can show the ACD silent monitor status and control the playback of OAISYS Tracer.

LICMAS-TASPROMO

TASKE Contact promotion for MAS.

Promo package includes LICMAS-TASBASEP (TASKE Contact software package includes 20 agents, 1 supervisor, 1 Display Central, 1 Desktop and 1 year free upgrades/tech support). Additional agents at the discounted price (LICMAS-TASAGNTP) may be purchased when it is ordered with this promotion part number. Valid through March 31, 2009.

LICMAS-TASSIGN

MAS TASKE Contact Desktop.

Concurrent user license for an agent to view customizable real-time contact center information on the agents desktop for TASKE for MAS.

LICMAS-TASSITE

MAS Taske Contact Site license.

TASKE Contact with 360 agents. Also includes 2 supervisor user license, 1 DisplayCentral user license, 5 Desktop user license and 12 Months Total Care maintenance. Software only. Requires a dedicated computer.

LICMAS-TASSUP1

MAS TASKE Supervisor Client, 1 license for MAS.

Concurrent user license for monitoring, reporting, database searches, database administration, and forecasting for TASKE for MAS.

LICMAS-TASSUP10

MAS TASKE Supervisor Client, 10 license for MAS.

Supervisor client license package including 10 supervisors for TASKE for MAS.

LICMAS-TASSUP3

MAS TASKE Supervisor Client, 3 license.

Supervisor client license package including 3 supervisors for TASKE for MAS.

LICMAS-TASSUP5

MAS TASKE Supervisor Client, 5 license.

Supervisor client license package including 5 supervisors for TASKE for MAS.

LICMAS-TASSUPMT

MAS myTaskeReporter Total Care support.

Annual maintenance for ongoing support and free upgrade for myTaskeReporter after the initial first year warranty.

LICMASUM10SEATS

10 Seat Unified Messaging Upgrade for MAS.

Upgrade license for the Media Application Server available on FYI. Requires UM Feature Group. Unified Messaging Seat Upgrades are added incrementally in the Strategy ES. The UM Feature Group includes 5 UM client seats. With LICMASUM10SEATS, total UM seats would be 15 (5 + 10).

LICMAS-UM-1SEAT

Single Seat Unified Messaging Upgrade for MAS.

Upgrade license for the Media Application Server available on FYI. Requires UM Feature Group. Unified Messaging Seat Upgrades are added incrementally in the Strategy ES. The UM Feature Group includes 5 UM client seats. With LICMAS-UM-1SEAT, total UM seats would be 6 (5 + 1).

LICMASUM25SEATS

25 Seat Unified Messaging Upgrade for MAS.

Upgrade license for the Media Application Server available on FYI. Requires UM Feature Group. Unified Messaging Seat Upgrades are added incrementally in the Strategy ES. The UM Feature Group includes 5 UM client seats. With LICMASUM25SEATS, total UM seats would be 30 (5 + 25).

LICMASUM50SEATS

50 Seat Unified Messaging Upgrade for MAS.

Upgrade license for the Media Application Server available on FYI. Requires UM Feature Group. Unified Messaging Seat Upgrades are added incrementally in the Strategy ES. The UM Feature Group includes 5 UM client seats. With LICMASUM50SEATS, total UM seats would be 55 (5 + 50).

LICMASUMUNLIMT

Unlimited Seat Unified Messaging Upgrade for MAS.

Upgrade license for the Media Application Server available on FYI. Requires UM Feature Group.

LICMAS-UPGREN1

MAS upgrade single basic agent to enhanced agent.

Upgrade one basic agent to one enhanced agent. Quantity must match with the number of existing basic agents as all basic agents must be upgraded to enhanced agents.

LICMASUPTTSETI

2 Channel upgrade for Text To Speech for MAS.

Upgrade license for the Media Application Server available on FYI. Requires prior installation of LICMASF-GTTSETI. Maximum 8 Channels.

MAS-ACDBR-DPKG

ACD Demo System for Micro MAS-D.

Includes turnkey Strata ACD system with Micro MAS platform, ACD software with 2-port Voice Assistant (LICMAS-DACDBR1). Taske Contact demo (LICMAS-TASDEMO) with a Dialogic card (SYS-D4PCIUF), and CIX license (LIC-ACD).

MAS-ACDBR-PKG

Advanced Partner Program ACD Demo System.

Includes turnkey Strata ACD system with Media Application Server platform and ACD software with 2-port Voice Assistant and HMP license (LICMAS-ACDBR2), Taske Contact demo license (LICMAS-TASDEMO) and ACD license for CIX (LIC-ACD).

ACD Dongle

CTI-TASKE-LICUP

License for the latest release of Taske Contact or Taske Reporter.

Retrieves the license for the latest version of Taske Contact or Taske Reporter software. The Taske system must be under the valid maintenance.

ACD-APP-BRA

Advanced Partner Program ACD Demo System - Branches.

Includes turnkey Strata ACD sys w/ PC hardware and ACD software and license w/ 2-port VA (ACD-APP-BR1).

ACD-APPL-SWB

ACD Application SW Pack.

Strata ACD application SW package includes ACD dongle (ACD-STARTER-TOS), ACD-APPL-SW1(Basic 10 agent/1 VA port, 10 NetPhone) and LIC-ACD (CIX license). Requires customer supplied hardware.

ACD-BASC-ADDL1

Single basic agent license.

One additional basic agent license

ACD-CALL RUTR

OAISYS Call Router License for Strata CIX/CTX.

Provides advanced call routing capabilities for ACD or CTI applications. Requires Strata ACD Server or OAISYS Net Server. One Call Router license required per system.

ACD-CHAT SEAT

OAISYS Chat Text Messaging License for Strata CIX/CTX.

Provides text messaging capabilities. Requires Strata ACD Server or OAISYS Net Server. One Chat license required for each user.

ACD-CT4-SVR

Strata ACD 4-slot (PCI) system.

Tower system equipped with 4 PCI slots, 512MB RAM, 10/100baseT NIC, keyboard and mouse, Windows 2000 Server. Requires ACD software package (ACD-APPL-SWA) and add optional voice boards as desired for ACD or IVR voice assistant announcement ports. See Sales Bulletin and System 2 Installation Guide for details

ACD-CT8-SVR

Strata ACD 8-slot (PCI) system.

Rackmount system equipped with 8 full size PCI slots, Intel Pentium 4 2.0GHz CPU, 512MB RAM, 10/100 Base-T Ethernet connection, keyboard and mouse, Windows 2000 Server. Requires ACD software package (ACD-APPL-SWA) and add necessary number of voice cards for VA announcement or IVR operation.

ACD-D120JCT

12-port PCI analog voice card.

Dialogic 12 port PCI analog voice card to be used for VA port that requires VA port license. Requires full length PCI slot and is not compatible with PCI-X.

ACD-ENHD-ADDL1

Single enhanced agent license.

One additional enhanced agent license

ACD-IVR

OAISYS IVR Option with Database Assistant & Text Reader.

Provides IVR operation with customer's existing ODBC database. Requires custom development quote from Computer Telephony Solutions, Inc. to create the IVR application. Requires Strata ACD Server or OAISYS Net Server.

ACD-NET PH SEAT

OAISYS Net Phone & Chat License for Strata CIX/CTX.

Provides desktop call control, PC phone functionality, and Chat text messaging capabilities. Requires Strata ACD Server or Net Server. One Net Phone/Chat license required for each user.

ACD-NETPH-VO

Voice plug-in for NetPhone.

Voice plug-in license to support VoIP for NetPhone. Requires the NetPhone license (ACD-NET PH SEAT) as well as IP end point license (LIC-CIX-IP-PORT).

ACD-STARTER-TOS

Toshiba USB dongle starter kit.

Spare part use only. This kit is usually included in any of ACD/Net Phone bundle part number. ACD starter kit includes Toshiba USB dongle, CD, and the document.

ACD-UPGR-ENHD1

Upgrade single basic agent to enhanced agent.

Upgrade one basic agent to one enhanced agent. Quantity must match with the number of existing basic agents as all basic agents must be upgraded to enhanced agents.

ACD-VA-PER PORT

Strata CIX/CTX ACD/IVR Voice Assistant Announcement License.

Requires Strata ACD Server or Net Server. One Voice Assistant license required per announcement port.

CIX-AG-ACDSYSVC

CIX ACD System Administrator Guide.

Provides the programming information on the Strata ACD system.

CTI-NETPH-ACD

ACD add-on to Net Phone package.

Includes Strata ACD system with 10 basic agents and 1 VA port. This is only applicable as an add-on to a Net Phone system (CTI-NETPH-SWB).

LIC-ACD

ACD Server License for Strata CIX and CTX Systems.

Required to activate ACD support in a Strata CIX/CTX system (one license is included in ACD turnkey packages and software packages). One license is required for each CIX system in the network ACD system. Also required for Tracer and Talkument system if ACD or Net Phone is not installed.

CTI-NETPH-ACD

ACD add-on to Net Phone package.

Includes Strata ACD system with 10 basic agents and 1 VA port. This is only applicable as an add-on to a Net Phone system (CTI-NETPH-SWB).

CTI-NETPH-ST10

Net Phone 10 client license pack.

Includes Net Phone 10 client license. Requires the Strata ACD system or Net Phone system.

CTI-NETPH-SWB

Net Phone server and 10 client license.

Includes the CIX license (LIC-ACD), Toshiba dongle (ACD-STARTER-TOS) and Net Server and 10 client license (CTI-NETPH-SW). Requires the customer provided PC to run the server software.

CTI-SUPP-OAI

Maintenance support.

Covers annual ongoing support for Call Router, Net Phone, and Chat per system (server) after the warranty period. This includes all software upgrades and technical support during the covered period. Specify number of years.

CTI-TAS-ESSBASE

Taske Essential Base system.

Taske Essential Base license to support up to 50 extensions with 1 supervisor client license. Requires ACD or Net Phone system.

CTI-TAS-ESSCLI

Taske Essential Supervisor client.

Taske Essential supervisor client license for realtime status display and reporting

CTI-TAS-ESSEXTN

Taske Essential Extension.

Adds 50 extension to Taske Essential

CTI-TAS-ESSSUP

Taske Essential annual maintenance.

Taske Essential annual maintenance service allows the software upgrade and the technical support after the initial year

CTI-TAS-MTUPP

Taske Reporter promo upgrade to Contact.
Taske Reporter promo (CTI-TASKE-MTP) upgrade to Taske Contact Promo package. Valid through October 30, 2008.

CTI-TASKE-AGENT

TASKE Contact agent license.
License to add an agent in TASKE reporting.

CTI-TASKE-AGNTP

TASKE Contact agent for promo bundle.
License to add an agent in TASKE reporting. Available only when ordered with the Taske promo bundle (CTI-TASKE-PROMO). Valid through March 31, 2009.

CTI-TASKE-BASEP

TASKE Contact system.
TASKE Contact software package includes 20 agents, 1 supervisor, 1 DisplayCentral, 1 Desktop and 1 year free upgrades/tech support. Valid through March 31, 2009.

CTI-TASKE-CONV

TASKE Contact conversion from other PBX.
Used to convert an existing site from one PBX to another. The result will be the equivalent number of licensed seats, Agent Desktops, and Supervisors, an Enterprise Supervisor as the original site.

CTI-TASKE-DC1

Taske Display Central.
Single Display Central license for Taske Contact to show realtime statistics and/or external data on the computer screen such as large LCD/plasm display. May be used as the replacement of wall mount display.

CTI-TASKE-DESUP

Taske Desktop Advance upgrade per Taske Desktop.
Taske Desktop upgrade to Advance for screen pop and other automated tasks. Quantity must be same as the number of Taske Desktop license.

CTI-TASKE-ENTER

TASKE Enterprise software license.
Allows the supervisor to manage multiple contact centers simultaneously. Requires TASKE Contact at each site and a TCP/IP network connection.

CTI-TASKE-LBWF

TASKE Contact Left Bank integration.
Provides an interface between TASKE Contact and Left Bank Solutions Monet. Used to transfer historical data for forecasting and scheduling and real-time data for agent adherence.

CTI-TASKE-LICUP

License for the latest release of Taske Contact or Taske Reporter.
Retrieves the license for the latest version of Taske Contact or Taske Reporter software. The Taske system must be under the valid maintenance.

CTI-TASKE-MTP

Taske Reporter promo.

Taske Reporter, web based reporting promo license includes 20 agents and 1 supervisor. Requires PC based Strata ACD system. Valid through October 30, 2008.

CTI-TASKE-MTSUP

myTaskeReporter additional supervisor.
Supervisor client license for myTaskeReporter.

CTI-TASKE-MTUPG

myTaskeReporter upgrade to Taske Contact.
Upgrade from myTaskeReporter (CTI-TASKE-MT) to Taske Contact Base (10 agents, 1 supervisor). Additional agents and supervisors will require the separate license. Cannot upgrade myTaske Reporter included in the application package.

CTI-TASKE-NETP

Taske Contact Net Phone/Tracer integration.
Adds Net Phone/Oaisys Tracer integration capability to Taske Contact so that Taske web client can show the ACD silent monitor status and control the playback of OAISYS Tracer.

CTI-TASKE-PROMO

TASKE Contact promotion.
Promo package includes CTI-TASKE-BASEP (TASKE Contact software package includes 20 agents, 1 supervisor, 1 Display Central, 1 Desktop and 1 year free upgrades/tech support). Additional agents at the discounted price (CTI-TASKE-AGNTP) may be purchased when it is ordered with this promotion part number. Valid through March 31, 2009.

CTI-TASKE-SIGN

TASKE Contact Desktop license.
Concurrent user license for an agent to view real-time contact center traffic conditions on the agents computer desktop. It can be customized for each agent and configured to display Queue status information, performance parameters and other key measures. Thresholds can be applied to each parameter alerting agents to make informed decisions and meet service level targets.

CTI-TASKE-SITE

Taske Contact Site license.
TASKE Contact with 360 agents. Also includes 2 supervisor user license, 1 DisplayCentral user license, 5 Desktop user license and 12 Months Total Care maintenance. Software only. Requires a dedicated computer.

CTI-TASKE-SUP1

TASKE Supervisor client license.
Concurrent user license for monitoring, reporting, database searches, database administration, and forecasting.

CTI-TASKE-SUP10

TASKE 10 Supervisor client license.
Supervisor client license package including 10 supervisors.

CTI-TASKE-SUP3

TASKE 3 Supervisor client license pack.
Supervisor client license package including 3 supervisors.

CTI-TASKE-SUP5

TASKE 5 Supervisor client license pack.
Supervisor client license package including 5 supervisors.

CTI-TASSUP-CONA

TASKE Contact Agent support.

Annual maintenance for ongoing support and free upgrades per agent. Requires CTI-TASSUP-CONB. The quantity must match with the number of licensed agents. If the system is out of maintenance for more than 3 months, CTI-TASSUP-CONR must be purchased and activated at the same time. NOTE: Taske maintenance parts are now manual order items and the orders must be processed by a Customer Service Representative (CSR). Download the TASKE Maintenance Order Form from FYI > Tools > Forms > Miscellaneous. Simply fill out the form and send to a CSR.

CTI-TASSUP-CONB

TASKE Contact Base support.

Annual maintenance for ongoing support and free upgrades for smaller sites (guideline: less than 150 agents). If the system is out of maintenance for more than 3 months, CTI-TASSUP-CONR must be purchased and activated at the same time. NOTE: Taske maintenance parts are now manual order items and the orders must be processed by a Customer Service Representative (CSR). Download the TASKE Maintenance Order Form from FYI > Tools > Forms > Miscellaneous. Simply fill out the form and send to a CSR.

CTI-TASSUP-CONR

TASKE Contact re-enlist site support.

Order 1 if the maintenance for the license on your site has been expired for at least 3 months. Must be activated with CTI-TASSUP-CONA/CONB. NOTE: Taske maintenance parts are now manual order items and the orders must be processed by a Customer Service Representative (CSR). Download the TASKE Maintenance Order Form from FYI > Tools > Forms > Miscellaneous. Simply fill out the form and send to a CSR.

CTI-TASSUP-CONS

TASKE Contact Site support.

Annual maintenance for ongoing support and free upgrades. Recommended for larger TASKE Site (guideline: more than 150 agents) in lieu of the Base plus agent model. NOTE: Taske maintenance parts are now manual order items and the orders must be processed by a Customer Service Representative (CSR). Download the TASKE Maintenance Order Form from FYI > Tools > Forms > Miscellaneous. Simply fill out the form and send to a CSR.

CTI-TASSUP-MT

myTaskeReporter Total Care support.

Annual maintenance for ongoing support and free upgrade for myTaskeReporter after the initial first year warranty.

CTI-TMENT-2003

OAISYS Talkument Win2003 server upgrade.

Upgrade OAISYS Talkument system from Windows XP to Windows 2003 server. Must be purchased with the new system or the refresh program. Cannot upgrade the systems in the field. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TMENT-DEMO

OAISYS Talkument Dealer Demo System.

OAISYS Talkument Voice Documentation System for dealer demo purpose only and not for resale. Includes PC, cards and software, equipped for 2T1/PRI interfaces or 48 IP end points with unlimited users. Monitor sold separately. Requires LIC-ACD if ACD or Net Phone is not installed. VoIP requires a LAN switch with port mirroring to capture the audio stream of all IP phones. Additional switches with port mirroring may be needed if phones are connected to different networks. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TMENT-SOA

OAISYS Talkument Small Office Analog System.

OAISYS Talkument Voice Documentation System includes PC, cards and software, equipped for 8 analog CO interfaces or 20 IP end points with unlimited users. Includes one year warranty. Monitor sold separately. Requires LIC-ACD if ACD or Net Phone is not installed. VoIP requires a LAN switch with port mirroring to capture the audio stream of all IP phones. Additional switches with port mirroring may be needed if phones are connected to different networks. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TMENT-SOF

OAISYS Talkument Small Office System.

OAISYS Talkument Voice Documentation System includes PC, cards and software, equipped for 20 IP end points with unlimited users. Includes one year warranty. Monitor sold separately. Requires LIC-ACD if ACD or Net Phone is not installed. VoIP requires a LAN switch with port mirroring to capture the audio stream of all IP phones. Additional switches with port mirroring may be needed if phones are connected to different networks. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TMENT-SUPG

OAISYS Talkument Small Office Upgrade.

Upgrade for OAISYS Talkument Small Office System to increase from 20 IP end points to 48 IP end points. Includes one year warranty. Monitor sold separately. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TMENT-SYS

OAISYS Talkument system.

OAISYS Talkument Voice Documentation System includes PC, cards and software, equipped for 2T1/PRI interfaces or 48 IP end points with unlimited users. Includes one year warranty. Monitor sold separately. Requires LIC-ACD if ACD or Net Phone is not installed. VoIP requires a LAN switch with port mirroring to capture the audio stream of all IP phones. Additional switches with port mirroring may be needed if phones are connected to different networks. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-16P

Tracer 16 port voice board. 16 port analog voice board.

CTI-TRACER-16S

Tracer 16 port station board. 16 port digital station board

CTI-TRACER-24A

Tracer 24 port voice board. 24 port analog voice board.

CTI-TRACER-24P

Tracer single T1/PRI voice board. Single T1 or PRI voice board.

CTI-TRACER-24S

Tracer 24 port station board. 24 port digital station board

CTI-TRACER-48P

Tracer dual T1/PRI voice board. Dual T1 or PRI voice board.

CTI-TRACER-4P

Tracer 4 port voice board. 4 port analog voice board.

CTI-TRACER-8P

Tracer 8 port voice board. 8 port analog voice board.

CTI-TRACER-8S

Tracer 8 port station board. 8 port digital station board

CTI-TRACER-8SD

Tracer 8 port add-on board.

8 port add-on digital station card to 8 port station card (CTI-TRACER-8S).

CTI-TRACER-AD

Tracer advanced base package.

Free upgrade is available. Please order CTI-TRACER-ST before December 31, 2008, and it is automatically upgraded to CTI-TRACER-AD.

Tracer Advanced Base Package (max. 96 ports). Requires LIC-ACD if ACD or Net Phone is not installed.

- Rack mount, Pentium 4, 1GB, 4PCI
- Windows XP Pro
- 160GB/250GB HD, up to 30,000 hours
- DVD+RW for archive storage
- 2 Call Manager client license

CTI-TRACER-ADP

Tracer advanced plus package w/dual power supply.

Advanced Plus Package w/dual PS (max. 192 ports). Requires LIC-ACD if ACD or Net Phone is not installed.

- Rack mount, Pentium 4, 1GB, 4 PCI
- Win 2003/SQL Server w/5 licenses
- 160GB/320GB HD, up to 52,000 hours
- DVD+RW
- 5 Replay Clients
- 3 Call Manager client license

CTI-TRACER-ADPR

Tracer advanced plus pkg w/RAID1/dual power supply.

Advanced Plus Package w/dual PS/RAID1 (max. 192 ports). Requires LIC-ACD if ACD or Net Phone is not installed.

- Rack mount, Pentium 4, 1GB, 4 PCI
- Win 2003/SQL Server w/5 licenses
- 160GB/320GB HD, up to 52,000 hours
- DVD+RW
- 3 Call Manager client license

CTI-TRACER-ADR

Tracer advanced base package w/RAID1.

Free upgrade is available. Please order CTI-TRACER-STR before December 31, 2008, and it is automatically upgraded to CTI-TRACER-ADR.

Tracer Advanced Base Package (max. 96 ports). Requires LIC-ACD if ACD or Net Phone is not installed.

- Rack mount, Pentium 4, 1GB, 4PCI
- Windows XP Pro
- 160GB/250GB HD, up to 30,000 hours
- DVD+RW for archive storage
- 2 Call Manager client license

CTI-TRACER-CCM

Adds Tracer call center management.

Adds Tracer call center management software to an OASYS recording appliance (Talkument). The PC platform and voice cards can be retained. Comes with the matching quantity of Tracer voice port license.

CTI-TRACER-CLI

Tracer Management Client License.

One concurrent additional Tracer Management Client License to provide the user with the live recording monitor capability and management tools for the reporting and evaluation of the system. Requires Tracer 5 or later. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-DEA

Tracer advanced dealer demo system - No card.

Tracer Advanced Dealer Demo system up to 30,000 hours of storage. Voice cards needs to be purchased.

Requires LIC-ACD if ACD or Net Phone is not installed.

CTI-TRACER-DES

Tracer standard dealer demo system - No card.

Tracer Standard Dealer Demo system up to 14,000 hours of storage. Voice cards needs to be purchased. Requires LIC-ACD if ACD or Net Phone is not installed.

CTI-TRACER-INT

Tracer 3rd part application integration option.

Provides the interface to the 3rd party application to integrate Tracer for Recording/Playback control from the applications such as Predictive Dialer and/or CRM application. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-OUT

Tracer/Talkument Diamond support.

OASYS Tracer/Talkument Diamond out-of-plan upgrade makes out-of-warranty system eligible for Diamond support plan. Quantity needs to match with the number of quarters without maintenance, not exceeding 8 quarters. Per system (server). (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-RAD

Tracer Advanced server upgrade.

Upgrades the server and the software to the latest Tracer Advanced system. Includes PC platform, preinstalled latest software, one year warranty, installation support, and data transfer services from the existing system. Voice cards and the dongle/license need to be ported from the existing system. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-RADP

Tracer Advanced Plus server upgrade.

Upgrades the server and the software to the latest Tracer Advanced Plus system. Includes PC platform, preinstalled latest software, one year warranty, installation support, and data transfer services from the existing system. Voice cards and the dongle/license need to be ported from the existing system. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-RADR

Tracer Advanced with Raid server upgrade.

Upgrades the server and the software to the latest Tracer Advanced w/Raid system. Includes PC platform, preinstalled latest software, one year warranty, installation support, and data transfer services from the existing system. Voice cards and the dongle/license need to be ported from the existing system. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-RAPR

Tracer Advanced Plus w/Raid server upgrade.

Upgrades the server and the software to the latest Tracer Advanced Plus w/Raid system. Includes PC platform, preinstalled latest software, one year warranty, installation support, and data transfer services from the existing system. Voice cards and the dongle/license need to be ported from the existing system. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-RPT

Tracer reporting option (StreetView).

Optional software license to provide the reporting capability. Requires any model of Tracer system. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-RSTD

Tracer Standard server upgrade.

Upgrades the server and the software to the latest Tracer Standard system. Includes PC platform, preinstalled latest software, one year warranty, installation support, and data transfer services from the existing system. Voice cards and the dongle/license need to be ported from the existing system. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-ST

Tracer standard package.

Free upgrade is available. When CTI-TRACER-ST is ordered before December 31, 2008, it is automatically upgraded to CTI-TRACER-AD.

Tracer Standard Base Package (max. 48 ports). Requires LIC-ACD if ACD or Net Phone is not installed.

-Tower, Celeron, 512MB, 4 PCI

-Windows XP Pro

-160 GBHDD, up to 14,000 hours

-DVD+RW for archive storage

-1 Call Manager client license

CTI-TRACER-STR

Tracer standard package w/RAID1.

Free upgrade is available. When CTI-TRACER-STR is ordered before December 31, 2008, it is automatically upgraded to CTI-TRACER-ADR.

Tracer Standard Base Package (max. 48 ports) w/RAID1. Requires LIC-ACD if ACD or Net Phone is not installed.

-Tower, Celeron, 512MB, 4 PCI -Windows XP Pro -120 GBHDD, up to 14,000 hours -DVD+RW for archive storage
-10 Replay Clients (Recommend 5 max)

CTI-TRACER-SUPP

Tracer/Talkument Diamond support.

Tracer/Talkument Diamond Support for annual maintenance for Tracer Software only. This includes the technical support and free upgrades during the covered period after the initial warranty.

HW maintenance is sold separately. Please contact OAISYS. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-VOIP

Tracer VoIP recording engine.

VoIP recording module to record the conversation at VoIP stations. Supports up to 48 ports. Requires a LAN switch with port mirroring to capture the audio stream of all IP phones. Additional switches with port mirroring may be needed if phones are connected to different networks.

CTI-TRACER-VP

Tracer voice port license.

Single voice port license for monitoring. Required for each voice port of trunk, station, or VoIP recording engine.

(The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-W16P

Extended to 3 year warranty for 16 port voice board.

Extend the 16 port voice board warranty to 3 years.

Includes AWR. (The license activation code will be sent by the 3rd party vendor to the e-mail address provided to Toshiba by the dealer at time of order entry in FYI).

CTI-TRACER-W16S

Extended 3 year warranty for 16 port station board.

Extend the 16 port station board warranty to 3 years including the initial warranty.

Includes AWR.

CTI-TRACER-W24A

Extended 3 year warranty for 24 port analog voice board.

Extend the 24 port analog voice board warranty to 3 years including the initial warranty.

Includes AWR.

CTI-TRACER-W24P

Extended to 3 year warranty for T1 voice board.

Extend the T1 voice board warranty to 3 years.

Includes AWR.

CTI-TRACER-W24S

Extended 3 year warranty for 24 port station board.

Extend the 24 port station board warranty to 3 years including the initial warranty.

Includes AWR.

CTI-TRACER-W48P

Extended to 3 year warranty for dual T1 voice board.
Extend the dual T1 voice board warranty to 3 years.
Includes AWR.

CTI-TRACER-W4P

Extended to 3 year warranty for 4 port voice board.
Extend the 4 port voice board warranty to 3 years.
Includes AWR.

CTI-TRACER-W8P

Extended to 3 year warranty for 8 port voice board.
Extend the 8 port voice board warranty to 3 years.
Includes AWR.

CTI-TRACER-W8S

Extended 3 year warranty for 8 port station board.
Extend the 8 port station board warranty to 3 years including the initial warranty.
Includes AWR.

CTI-TRACER-W8SD

Extended 3 year warranty for 8 port add on board.
Extend the 8 port add on station board warranty to 3 years including the initial warranty.
Includes AWR.

CTI-TRACER-WADV

Extended to 3 year warranty for Advanced system.
Extend the Tracer hardware (PC) of Advanced system to 3 years.
Includes AWR.

CTI-TRACER-WBAS

Extended to 3 year warranty for Standard Base system.
Extend the Tracer hardware (PC) of Standard system warranty to 3 years.
Includes AWR.

CTI-UNIFIER10

Strata Unifier 10 node license.
Strata Unifier to support up to 10 node Network ACD system. It also supports Net Phone. Each CIX node must have a valid LIC-ACD license, and Strata ACD/Net Phone license to cover the entire network is also required. Requires Network Assessment to receive technical support.
Please contact Sales Applications Desk or a Sales Engineer prior to quoting this product. Purchasing Unifier requires the approval from a Sales Engineer.

CTI-UNIFIER3

Strata Unifier 3 node license.
Strata Unifier to support up to 3 node Network ACD system. It also supports Net Phone. Each CIX node must have a valid LIC-ACD license, and Strata ACD/Net Phone license to cover the entire network is also required. Requires Network Assessment to receive technical support.
Please contact Sales Applications Desk or a Sales Engineer prior to quoting this product. Purchasing Unifier requires the approval from a Sales Engineer.

CTI-UNIFIER5

Strata Unifier 5 node license.

Strata Unifier to support up to 5 node Network ACD system. It also supports Net Phone. Each CIX node must have a valid LIC-ACD license, and Strata ACD/Net Phone license to cover the entire network is also required. Requires Network Assessment to receive technical support.

Please contact Sales Applications Desk or a Sales Engineer prior to quoting this product. Purchasing Unifier requires the approval from a Sales Engineer.

Table 2: Type and Number of Licenses Required by Feature

Feature	IP Interface Card	Basic Port License ¹	Strata Net License ²	SoftIPT License ³	IP Port License ⁴
IP ACD (MAS) Announcement ports	MIPU/GIPU or LIPU/S	Each Port			
IP Attendant Console	MIPU/GIPU or LIPU/S	Each Port			
IP Voice Mail (MAS)	MIPU/GIPU or LIPU/S	Each Port			
Strata Net IP	MIPU/GIPU or LIPU/S	Each Trunk	1*		
IPT2008-SDL	MIPU/GIPU or LIPU/S				Each Station ⁵
IPT2010-SD/2020-SD S	MIPU/GIPU or LIPU/S				Each Station ⁵
IP5000-Series	MIPU/GIPU or LIPU/S				Each Station ⁵
SIP Phone	MIPU/GIPU or LIPU/S				Each Station
SoftIPT	MIPU/GIPU or LIPU/S			Each Active Station	Each Station ⁵
ACD Announcement ports	N/A	Each Port			
Attendant Console	N/A	Each Console			
DKT/SLT Interface ports	N/A	Each Port			
Trunk Interface Port	N/A	Each Port			
Voice Mail ports	N/A	Each Port			
* One license per system					

1. LIC-4 BASIC

2. LIC100 STRATA N
LIC200 STRATA N
LIC670 STRATA N
LIC1200 STRATA N

3. LIC-SOFTIPT

4. LIC-CIX-IP PORT

5. R5 and later software - one license per active station; R4 and earlier software - one license per station

License Display Screen

In the example screen below, the “Number of Basic Ports” installed on the processor is 112 but only 20 ports are programmed (used). The “used” ports could be a mix of PDN ports, CO line ports, etc. This lets the installer know how much system capacity is available for future growth without installing more licenses. To view this page in Network eManager go to: Maintenance > Licensing > License Information.

	Equipped	Used
CIX/CIX Release Number	1	
System Type	CIX200	
Maximum Number Of Cabinets	2	
Number of Serial Port(s)	2	
Number of DTMF Receivers	32	
Number of Basic Ports	112	22
Strata Net Channels	Unlimited	4
Number of CTI Sessions	9	
Number Of Attendant Consoles	4	
Number of Softphones	500	
CIX IP Telephony	Enabled	
Number Of IP End Points	160	4
Number Of LVMU Channels	8	0
SIP Trunk Channels	96	0
Number of DP5022-SDM	160	0

License Control

The following programs enable you to issue and maintain License Activation settings for Strata Network eManager users.

This program enables you to issue new licenses.

1. From the Network eManager menu, click Maintenance > Licensing > License Control.
2. Issue a License by cutting and pasting or manually entering the 60-character string in the License Code text box.

Note If you are not adding the License Code to Network eManager immediately, copy and save the code onto a disk. Save code in Notepad using Fixedsys font.

3. Click one of the following buttons:
 - Issue – to issue the License Code.
 - Cancel Issue – to cancel the License Code issue.
4. Activate the License entered above by selecting the delay timer.
5. Click one of the following buttons:
 - Activate – for license activation.
 - Cancel Activate – to cancel license activation.

Note Cancel Issue (step 3) and Cancel Activate buttons work only in Standby mode.

License Issue

This program enables System Administrators to issue Licenses for Strata Network eManager users.

Field	Description
Status	Status applies to both License issue and License Activate. Displays Licensing Status. Not yet, Issue Stand by, Issue Finished, Cancel Issue, Activate Stand by, Activate Finished or Cancel Activate
License Code	Cut and paste the License code text string or manually enter the License Code (six characters per box). 60 characters. The License Code will have to be generated from Toshiba's FYI website (http://fyi.tsd.toshiba.com). After obtaining the License code from FYI save it as a Text file. Cut and paste the License code obtained from Toshiba's FYI website. The License Code is made up of the MAC Address and the number of ports. The License Code generated for a particular MAC Address is only good for the processor that contains that MAC Address.

License Activate (Prerequisite Program - License Issue)

This program enables activation of Strata Network eManager licenses issued in Program 913, License Issue.

Field	Description
Delay Timer	Select Activation Delay Timer in hours. 0~24 (default = 0) Enter 0 to issue or activate the license immediately or 1~24 to set the automatic delay activation feature, where 1 = 1 hour delay; 2 = 2 hour delay, etc. After the license is activated, use the License Information screen below to check that all ports and features have been activated properly.

License Information

The following programs enable you to set up Licensing details for Network eManager users.

1. From the Network eManager menu, click Maintenance > Licensing > License Information.
2. View Licensing details for this Strata CIX account.

This view is read-only information.

Field	Description
CIX Release Number	Basic Release Number of CIX software. To view the Active Software Version, go to Operations/System Setup.
System Type	Identifies the type of CIX system the Network eManager is currently connected to.
Maximum Number of Cabinets	Identifies the maximum number of cabinets. The total of base plus expansion cabinets.
Number of Serial Ports	Number of serial ports licensed on the BSIS. One license is needed for each SMDR and SMDI device connected to BSIS. (Programs 803 and 804 assigns BSIS ports).
Number of DTMF Receivers	The number of DTMF receivers licensed. The ARCS Subassembly is required on the CIX100 processor, no additional hardware is required for CIX670 or CIX1200.
Number of Basic Ports	The number of Line circuits, Station circuits and ISDN B channels licensed, and the number of licenses in use (or programmed). Station circuits use a license only when a PDN, DDS, BATI or door phone is assigned to the circuit. Analog and T1 line circuits use a license only when a line number is assigned to the circuit or B-channel. ISDN B-Channels use a license when assigned in PRI and BRI assignments.
Strata Net Channels	The number of Strata Net channels licensed, and the number of licenses in use (or programmed). This license must be enabled on each CIX in a Strata Net network.
Number of CTI Sessions	The number of licensed CTI sessions. Each Attendant Console, the ACD or OAISYS Sever and each third party CTI application requires one CTI session license. (Command 803 assigns CTI sessions).
Number of Attendant Consoles	The number of Attendant Consoles licensed. One license is required for each Attendant Console. A CTI Session License is also required for each Attendant Console (see Number of CTI Sessions).
Number of Softphones	The number of Soft IP Phones licenses. Each phone requires one license.
CIX IP Telephony	Shows CIX IP Telephony is Enabled or Disabled.
Number of IP Endpoints	The number of IP Endpoints licensed, and shows the number of licenses in use (or programmed).

This chapter provides Strata CIX system programming information for programmers using the Strata Network eManager programming interface.

100 Cabinet Slot PCB Assignments

Prerequisite Program: None

All PCBs, except the system processors, are assigned to cabinet slots using this command. The CIX has a dedicated slot in the Base cabinet for the system processors so they do not require this assignment.

- The CIX100 provides one Base (4) and one Expansion (Exp) cabinet (4) for a total of eight slots.
 - The CIX200 Base cabinet has three slots (S101~S103) and the Exp cabinet has four slots (S201~S204) for a total of seven slots.
 - The CIX670 system provides one Base cabinet and up to six Exp cabinets. The Base cabinet has eight slots and each of the six Exp cabinets have 10 slots for a total of 68 slots.
 - The CIX1200 system can be configured with up to 12 cabinets - one Base cabinet and up to 11 Expansion cabinets for a total of 118 slots.
1. In Network eManager, click System > Card Assignment. The Card Slot Assignment screen displays.
 2. Cabinet (01~012) – Select the two-digit cabinet number to be assigned. The cabinet and slot number appear in the cab/slot field.
 - Select 01 for CIX40.
 - Select 01 for Base and Exp. cabinet (CIX100).
 - Select 01 or 02 for CIX200.
 - Select 01 for Base and 02~07 respectively, for each Exp. cabinet (CIX670).
 - Select 01 for Base and 02~12 respectively, for each Exp. cabinet (CIX1200).
 3. Slot (01~10) – Select the two-digit card slot number to be assigned.
 - Select 01~04 for Base slots and 05~08 for Exp. slots (CIX100).
 - Select 01~04 for CIX200 Base and Exp. slots. Slot 04 in the Base Cabinet is the LSLU card slot.
 - Select 01~08 for Base slots and 01~10 for Exp. slots (CIX670).
 - Select 01~08 for Base slots and 01~10 for Exp. slots (CIX1200).

Note The CIX100 ACTU built-in relay is programmed as relay 5. For this relay operation, BIOU2 is installed as default in a virtual equip position: Cabinet 2, Slot 5, PCB code 20 in Program 100. To install an actual BIOU2 and disable the ACTU built-in relay, use the programming telephone to remove the virtual BIOU2, then install the actual BIOU2 in Cabinet 01/Slot 01~08 in the normal manner.

4. Select the PCB Type. Use the drop down menu to select the PCB type. The selected PCB type will appear in the PCB Type field.
5. Click **Submit** to save your data.

Dial Number Plan

Prerequisite Program: None

The Dial Number Plan lets you download all current dialing numbers registered in the CIX database.

The Numbering Plan screen gives you details on the different categories of Numbers. The table below contains the information shown on the screen.

Number Type	Description
Digit Groups	Lists all numbers that begin with each digit 0~9 separately.
DKT Prime DNs	Lists all Prime Directory Numbers assigned to a digital telephone in Program 200.
SLT Prime DNs	Lists all Prime Directory Numbers assigned to a standard telephone in Program 200.
ISDN DNs	Lists all Directory Numbers assigned to ISDN telephones in Program 202.
Phantom DNs	Lists all Phantom Directory Numbers assigned to digital telephones, Add-On-Modules and DSS consoles in Programs 205, 213, 215 respectively.
IPT_B Prime DNs	Lists all Prime Directory Numbers assigned to BIPU-M card in Program 200
IPT_L Prime DNs	Lists all IPT Prime Directory Numbers assigned to BIPU-L card in Program 200
SIP Prime DNs	Lists all SIP Prime Directory Numbers assigned to BIPU-L card in Program 200
ACD Pilot	Lists all ACD Pilot Numbers assigned in Program 540.
Hunt Group Pilot	Lists all Hunt Group Pilot Numbers assigned in Program 209.
Access Codes	Lists all feature, line and line group access codes assigned in Program 102.

Click **Continue** to view the next screen. You will be able to view all the DNs, IP DNs and other numbers used.

102 Flexible Access Codes

Prerequisite Program: None

Strata CIX comes with pre-assigned Flexible Access Codes that the telephone dials to access features. This enables you to create customized Flexible Access Codes. The Strata CIX Flexible Numbering Plan associates features stored in memory (i.e., “Store Code,” see [Table 4-1](#)) to a Flexible Numbering Code assigned by the user.

Note Flexible Numbering Plan access codes cannot conflict with DN assignments.

1. Enter your customized Flexible Numbering Plan in the “Programmed Value” column of [Table 4-1](#).
2. In Network eManager, click System > Flexible Access Code. The Flexible Access Codes screen displays.
3. 00 Access Code – Enter the digits to be dialed (0~9,#,*) to access a feature or an OLG. To delete, select “No Data” in 01 Feature Name. Conflict with an assigned DN will produce an error.
4. 01 Feature Name – Select the Flexible Numbering Feature (see [Table 4-1](#)) to see which access code is being assigned.

Note To assign an access code to an OLG, select “Line Group access code - one access code for each OLG.” To assign the prefix digit(s) for the access code of individual lines, select “Line access code - leading digit(s) to access individual lines.” Example: If #7 is selected as the line access prefix, the users will dial #7xxx to access an individual line (where xxx is the line number).

5. 02 OLG Number – Enter the Outgoing Line Group number to which the OLG access code is being assigned. This field is only required if you chose “Line Group Access Code – one access code for each OLG in Step 4 above. Enter a **0** in this field if a Feature Code other than 551 was selected.

Note 02 OLG Number:

- 0~32 CIX100 and CIX200
- 0~128 CIX670
- 0~220 CIX1200
- Field appears only when 01 Feature Name - Line Group access code – one access code for each OLG, is selected.

6. Click **Submit**.

To delete an access code assignment

1. Click the **Create** button and enter the access code in the index, select No Assignment, click **Submit**. This clears the access code so that you can reassign it to another feature.

Creating New Feature Codes

1. Click on the **Create** button.
2. Enter new feature/access code. Click **OK**. When complete, your screen will change to a gray (edit mode) color and the feature/access code will be red.
3. From the Feature Name drop down menu select the feature to be assigned.
4. Submit your data.

Notes

- To range program feature/access codes use a “-” between a range of values and a “,” for an additional entry not in a range.
- System Date and Time Access Codes – The system date adjust code and system time adjust code is different for every system. The defaults are #651 and #652 respectively.

Important! If you backup a CIX database (default.dat) with software that does not support Time/Date access codes and then restore it to a CIX software version that supports these access codes, you must use this program to set the Time/Date access codes. This must be done to allow end users to set the Time/Date from their LCD digital telephones.

Flexible Numbering Default Settings

Table 4-1 shows the default Flexible Numbering Feature and Flexible Numbering Plan code relationships. Pressing the Flexible Numbering Plan code from any station enables users to directly access the Flexible Numbering Feature. The Feature Index Codes will display on the LCD of the telephone once the Default Access Codes are entered.

Note These three-digit Feature Index Numbers should not be confused with the Program 205 three-digit Button Codes.

Table 4-1 Flexible Numbering Plan Default Settings

Flexible Numbering Feature	Feature Index	Default Access Code	Programmed Value
No Data			
ABR - Activate	150	#441	
ABR - Cancel	151	#442	
Call Park Orbits - Activate	170	#33	
Call Park Orbits - Park Answer (Retrieve Parked Call)	173	#32	
System Orbit Number	174	7000~7019	
DND - Local Activation	180	#6091	
DND - Local Cancellation	181	#6092	
DND - Remote Activation	182	#6191	
DND - Remote Cancellation	183	#6192	
Door Lock Control -Unlock	190	#12	
Door Phones - Call	191	#15	
Flash - short	200	#450	
Flash - long	210	#451	
Group Paging - Invoke All Group Paging	220	#30	
Group Paging - Invoke Individual Group Paging	230	#31	
Answer for External Group Paging	232	#5#36	
Emergency Page - Invoke All Emergency Paging	240	#37	

Table 4-1 Flexible Numbering Plan Default Settings (continued)

Flexible Numbering Feature	Feature Index	Default Access Code	Programmed Value
Emergency Page - Invoke Individual Emergency Paging	250	#38	
Originate Call by Terminal Speed Dial (Index: 00-99)	260	*1	
Originate Call by System Speed Dial (Index: 000-099)	261	*2	
Originate Call by System Speed Dial (Index: 100-199)	262	*3	
Originate Call by System Speed Dial (Index: 200-299)	263	*4	
Originate Call by System Speed Dial (Index: 300-399)	264	*5	
Originate Call by System Speed Dial (Index: 400-499)	265	*6	
Originate Call by System Speed Dial (Index: 500-599)	266	*7	
Originate Call by System Speed Dial (Index: 600-699)	267	*8	
Originate Call by System Speed Dial (Index: 700-799)	268	*9	
Register Speed Dial	269	#66	
Call Forward (CF-A; Any Call) - Activation	340	#6011	
Call Forward (CF-B; Any Call) - Activation	341	#6021	
Call Forward (CF-NA; Any Call) - Activation	342	#6031	
Call Forward (CF-B/NA; Any Call) - Activation	343	#6041	
Call Forward (CF-A; External Call) - Activation	350	#6013	
Call Forward CF-B; External Call) - Activation	351	#6023	
Call Forward (CF-NA; External Call) - Activation	352	#6033	
Call Forward (CF-B/NA; External Call) - Activation	353	#6043	
Call Forward (CF-A; Any Call) - Remote Activation	360	#6012	
Call Forward (CF-B; Any Call) - Remote Activation	361	#6022	
Call Forward (CF-NA; Any Call) - Remote Activation	362	#6032	
Call Forward (CF-B/NA; Any Call) - Remote Activation	363	#6042	
Call Forward (CF-A; External Call) - Remote Activation	370	#6014	
Call Forward (CF-B; External Call) - Remote Activation	371	#6024	
Call Forward (CF-NA; External Call) - Remote Activation	372	#6034	
Call Forward (CF-B/NA; External Call) - Remote Activation	373	#6044	
Call Forward (Any Call) - Cancellation	380	#6051	
Call Forward (External Call) - Cancellation	390	#6053	
Call Forward (Any Call) - Remote Cancellation	400	#6052	
Call Forward (External Call) - Remote Cancellation	410	#6054	
Change Password for Remote Activation/Cancellation	420	#670	
Input Account Code	530	#46	
Change DISA Security Code	540	#658	
Outgoing Call by Directing Individual Trunk	550	#7	
Outgoing Call by Directing Outgoing Line Group	551	None	
Three Way Conferencing (Override to Tandem Connection)	560	#494	
Enter User Programming Mode	570	#9876	
LCR -Outgoing Call	580	9	
Set Voice Mail Message Waiting (activate MW without ringing for VM)	591	#63	

System

Table 4-1 Flexible Numbering Plan Default Settings (continued)

Flexible Numbering Feature	Feature Index	Default Access Code	Programmed Value
Release Received Message Waiting	592	#409	
Release Sent Message Waiting (Cancel MW without ringing for VM))	593	#64	
MW Answer access code (Retrieve Received Message Waiting)	594	#408	
Cancel ACB	600	#431	
Start BGM	610	#490	
Stop BGM	611	#491	
Start BGM for External Paging Device	612	#492	
Stop BGM for External Paging Device	613	#493	
Built-in modem	630	#19	
Night Ring Answer	640	#5#39	
Travelling Class Override Code Input Number	650	#471	
Change Travelling Class Override Code	651	#69	
Activate System Call Forward	670	#620	
Cancel System Call Forward	671	#621	
Call Pickup -Directed DN Pickup of Ringing or Held DN calls and Call Park Answer	678	#5#29	
Call Pickup ¹ - Directed DN pickup for either Ringing or Held Calls (Release 2.0, MF017 or higher)	679	#5#6	
Call Pickup for Incoming Call -Group Pickup	680	#5#34	
Call Pickup for Incoming Call -Directed Terminal	681	#5#5	
Call Pickup for Incoming Call -Directed Group	682	#5#32	
Call Pickup for Incoming Call -Directed DN	683	#5#22	
Call Pickup for Incoming Call -Any External Call	684	#5#9	
Call Pickup for On-Hold Call -Directed CO Retrieve	685	#5#73	
Call Pickup for On-Hold Call -Local Retrieve	686	#5#71	
Call Pickup for On-Hold Call -Remote Retrieve	687	#5#72	
Call Pickup for On-Hold Call -Directed DN Retrieve	688	#5#74	
Transfer to Voice Mail	690	#407	
Repeat Last Number Dialed	700	*0	
Volume Control for BEEP	710	#6101	
Change LCD Display Language	720	#495	
Advisory Message - Activation	730	#411	
Advisory Message - Cancellation	731	#412	
Emergency Call	740	#911	
Attendant Console Group Access Code	750	0	
Operator Call Special Dial (for Tenant Service)	751		
Private Network Access Code	760	8	
Node ID (Coordinated Directory Number Prefix)	770	None	
Substitution of Dial *	780	441	
Substitution of Dial #	781	440	

Table 4-1 Flexible Numbering Plan Default Settings (continued)

Flexible Numbering Feature	Feature Index	Default Access Code	Programmed Value
Originate Call with Sub Address -Outgoing Call/Internal Call	782	##	
Specified caller number access code	783	#888	
Application starting access code	800	#18	
Split (Conference)	860	860	
Voice Mail Call Monitor Off	870	#963	
UCD Agent Log in (Local Activation)	890	#6061	
UCD Agent Log out (Local Activation)	891	#6062	
UCD Agent Log in (Remote Activation)	892	#6161	
UCD Agent Log out (Remote Activation)	893	#6162	
System Date Adjust Code (Release 1.02, MA227 or higher)	910	#651	
System Time Adjust Code (Release 1.02, MA227 or higher)	911	#652	

1. Feature key is not provided for this Call Pickup. If you want a feature key, please use Single Touch Button that has a feature access code for this call pickup.

117 Public Dial Plan Digit Analysis

Prerequisite Program: None

This program is used to prevent users from circumventing Destination Restriction (DR) by sending tones directly to the PSTN before DR analysis is complete. It defines the number of digits expected in PSTN numbers beginning with identified sequences.

For example, a number starting with the toll prefix "1" would be expected to be 11 digits long. Calls will be cut through to the public network only after the expected number of digits have been received.

1. In Network eManager, click System > Public Numbering Plan.
2. Enter the Identifying Digits used for external calls.
3. Select Pattern Digit Length. Total digits beginning with the selected Prefix digit.
4. **Get Default** sets all values to factory default.
5. Click **Submit**.

FIELD	DESCRIPTION
00 Identifying Digits	<p>Enter the initial identifying external digits. 1 to 7 digits may include wild cards "X" and "N".</p> <p>Possible values: 1~7 (N = 2~9 and X = 0~9) (default = no value)</p>
01 Pattern Digit Length	<p>Select the number of digits to follow the prefix number established above. It is the total number of digits in a number beginning with the 00 Prefix Number entered above.</p> <p>Possible values: 0~64 (default = 0)</p> <p>Default: 1NXX=11, N11=3, NXX=7</p>

103 Class Of Service

Prerequisite Program: None

Class of Service (COS) (1~32) assignments are made for users of telephones, attendant consoles, and incoming calls based upon the line the call arrives or, in some cases, on a call-by-call basis when using DISA or Tie Line with Q-Sig interfaces. For telephone users, the COS assignments are made for each of the Day/Night Modes to allow different services during different parts of the day.

1. In Network eManager, click System > Class of Service.
2. COS Number – Select the COS Number (1~32).
3. Place a check mark in each of the services you wish to allow.
4. **Get Default** sets all values to factory defaults.
5. Click **Submit**.

FIELD	DESCRIPTION
01 Auto Busy Redial	Allow Automatic Busy Redial after dialing a busy outside destination.
02 Call Forward Override	Allow Call Forward Override. If allowed, this station does not forward calls from a calling station with System or Station Call Forward activated. This includes when dialing from the dial pad or DSS button located on the telephone or DSS console.
03 Call Transfer w/ Camp-on	Allows a call transferred by a station to Camp-on to a busy destination.
04 Change DISA Codes	Allow stations to change the DISA security code.
05 DND Override - Calling Party	Permits a caller to override the DND status of a station.
06 DND Override - Called Party	Allows calling parties with DND Override privileges to override DND status.
07 Do Not Disturb	Allows user to place stations on DND mode.
08 Remote Set/Reset DND	Provides stations with the ability to set/reset DND on other phones.
09 Executive Override	Allow Executive Override on a call.
10 Executive Override Allowed	Allow Executive Override for incoming callers.
11 Offhook Camp-on	Allow Off-hook Camp-on when encountering a busy destination.
12 Group Pickup	Allow stations for Group Call Pickup within one's own group.
13 Directed Station Pickup	Allow stations to pick another specific ringing station.
14 Directed Group Call Pickup	Allow stations to pick up a ringing station in a specified group.
15 Directed DN Call Pickup	Allow stations to pick up a specified DN.
16 Ext Call Pickup	Allow stations to pick up any incoming trunk call.

FIELD	DESCRIPTION
17 Directed CO Call Pickup	Allow stations to pick up a specific incoming trunk call.
18 Remote Retrieve Call Pickup	Allow stations to retrieve any call placed on Hold at a designated station (PDN).
19 DN Retrieve Call Pickup	Allow stations to retrieve a held call on another DN.
20 Handsfree Override	Allow stations to override Hands Free Answerback with Ringing mode.
21 Privacy Override	Allow user to override a private call when accessing a trunk that is in use.
22 Executive Privacy Override	Allows other stations to use Executive/Privacy Override on this station's calls.
23 Invoke Emergency Page	Allow the Emergency Page feature. (Not used in Release 1.)
24 Join Feature	Allow the Join feature.
25 Through Dialing	Allow to perform Through Dialing (Attendant Feature). Attendant can connect an inbound trunk call to another trunk with permission to use DTMF.
26 Tandem CO Connection	Allow user to set up a Trunk-to-Trunk connection and exit the conversation. This is required for a tandem between two stations in different nodes.
27 Day/Night Control	Allow Day/Night Mode changing privilege.
28 Ext BGM Control	Allow BGM over external speakers to be turned on/off.
29 LCR Feature	Allow access to LCR.
30 Individual Trunk Access	Allows user to dial individual trunk access codes, or use direct line appearances, to access specific lines.
31 Trunk Access Allowed	Allow access to trunk groups by trunk access codes.
32 Forced Account Codes	Must use Forced Account Codes for placing external calls.
33 Verified Account Codes	Verify Account Codes before an external call is placed.
34 Allow Short Hook Flash	Allow a Short Flash signal over outside lines.
35 Allow Long Hook Flash	Allow a Long Flash signal over outside lines.
36 Allow Hook Flash	Receive hook flash over CO Lines, and enable telephones and voice mail ports to perform hook flashes.
38 Can Receive OCA	Allow others to call this station using Off-hook Call Announce.
40 Disconnect Outgoing Call	If this parameter is allowed any O/G calls made by Extensions with this COS will be automatically released after a defined time period (defined in Program 104).
41 BGM Enable	Allow Background Music from stations with this COS.

FIELD	DESCRIPTION
42 DSS Override Call Fwd	<p>Enable: When this station calls another station using a DSS key, the called station will NOT call forward if Call Forward is set. When calling stations use the dial pad the called station's Call Forward will occur.</p> <p>Disable: When this station calls another station using a DSS key, the called station will call forward if Call Forward is set. When calling stations use the dial pad the called station's Call Forward will occur.</p>
43 DNIS LCD Preference	<p>Allows the telephone to display either the DNIS Name or ANI Name on incoming PRI calls.</p> <p>Enable: DNIS Name displays as programmed in the CIX database.</p> <p>Disable: ANI Name displays as received from the PRI provider.</p>
44 Auto Page Disconnect	<p>This feature is used for preventing Page busy-out if station users forget to hang up after making a Page call.</p> <p>Enable: Stations having this COS enabled will automatically disconnect from an external Page call after a determined time if the station does not hang up after connecting to the Page call. The time the auto disconnect will occur is determined by the Page disconnection timer in Program 104-25.</p> <p>Disable: Stations having this COS disabled will not disconnect from a Page call until the station is hung up.</p>
45 UCD Local Log-in	<p>Allows this telephone to login to a UCD group locally.</p> <p>Possible values: Enable (default) - allows local login to UCD group Disable - does not allow local login</p>
46 UCD Remote Log-in	<p>Allows one telephone to login another telephone to a UCD group remotely.</p> <p>Possible values: Enable - Allow remote login Disable (default) - Remote login not allowed</p>



104 System Timer

Prerequisite Program: None

This command assigns the system timers. System timers set a variety of times to control calls and features for the Strata CIX.

1. In Network eManager, click System > System Timer.
2. Select the desired timer value for each of the fields.
3. **Get Default** sets all values to factory default.
4. Click **Submit**.

FIELD	DESCRIPTION
01 ACB Callback Timer	The Automatic Callback timer sets the time that Automatic Callback will wait for Ring Back Tone being cancelled. Possible values:5~180 sec. (default = 30)
02 ACB Cancel Recall Timer	Select the ACB overall timer value. This value establishes a time limit for the destination telephone number to become available. Once the timer expires, the callback will be cancelled. Possible values:5~180 min. (default = 30)
03 Park Recall Timer	Select the Park timer value. This sets the length of time a call can remain in Park. Possible values:10~600 sec. (default = 120)
04 Camp-on Timer	Select Camp-on timer value. This sets the time needed to remain off-hook prior to Camp-on being automatically activated. Possible values:5~15 sec. (default = 10)
05 SMDR Valid Call Timer	The length of time that a call should be active before being captured by SMDR. The SMDR Answer timer sets a default time for when an outgoing call will be considered to be answered for SMDR reporting when a true answer signal is not returned from the public network. Setting the time too short will include calls that may not be completed, setting the time too long may exclude short calls that are answered and terminated in a short time. Possible values:0~180 sec. (default = 10)
06 Tandem Timer #1	Select timer for a trunk-to-trunk connection for which neither CO line has release supervision, a timer is needed to release the call if no user monitoring has taken place. Possible values:0~3600 sec. (default = 300)
07 Tandem Timer #2	Provides the time to enable an external user to dial a digit to extend the disconnect time when the connection is unsupervised. This feature is used primarily with DISA. Possible values:0~180 (default = 30)
08 CF No Answer Time	The System Call Forward No Answer timer specifies the time period that a phone will ring prior to invoking the Call Forward operation. Possible values:1~180 sec. (default = 30)

FIELD	DESCRIPTION
09 Dial Input Timer	Permits dialed input for a telephone and trunk using DTMF. Possible values:0~60 sec. (default = 20)
10 Delay 1 Ringing Timer	Specifies the time to wait before applying ringing to the phones designated to ring on Delay 1. Possible values:1~60 sec. (default = 12)
11 Delay 2 Ringing Timer	Selects the time to wait before applying ringing to the phones designated to ring on Delay 2. Possible values:1~60 sec. (default = 24)
12 Door Unlock Timer	Select the length of time to send an electrical signal to a door for releasing the lock. Possible values:1~30 sec. (default = 6)
13 9+11 Judgment Timer	The 9+11 inter-digital timer provides a timing value for the system to wait for additional digits to be dialed looking for the 911 or 9+911 dialed codes for treatment using the E911 procedures rather than normal dialing treatment. Possible values:1~30 sec. (default = 5)
14 Emergency Call Timer	Sets a time for advancing the call to the next station in a list of destinations for the call. Possible values:10~180 sec. (default = 30)
15 ABR Busy Detection Time	The Destination Busy Detection timer sets the time to wait while looking for a busy condition on an external call. If detected, it will trigger the initiation of the Automatic Busy Redial cycle. Possible values:1~30 sec. (default = 5)
16 Lost Call Timer	The Lost Call timer sets the time that a failed transfer recall will ring on the originating station prior to attempting to recall a secondary location. Possible values:1~600 sec. (default = 180)
17 Lost Call Final Timer	The Lost Call Final timer sets the time that a failed transfer recall will ring on the secondary location before being automatically disconnected. Possible values:1~600 sec. (default = 30)
18 DTMF Tone Sending Time	The DTMF tone sending duration for dialing on CO lines. Possible values:80msec (default) or 160msec
19 Auto Disconnect	Time after which an unsupervised trunk will be automatically released. Possible values:0~60 min. (default = 0)
20 Tie Line Delay Timer	This timer inserts a pause before any dialed information is sent to a Tie line. This pause allows the distant end time to prepare for the receipt of dialed digits.
21 Answer timer before disconnect	If an incoming DISA call routes over a Tie line and the call is not answered by the distant end within a certain period of time the DISA caller will be cut off. The time period before cut off is determined by this setting.

FIELD	DESCRIPTION
22 Outgoing Call Talking Disconnect Timer	If PGM 103 field 40 is set to enable, after this timer expires the out-going call is cut off.
23 Network DSS Refresh Timer	<p>Select Network DSS Refresh Timer. The time interval when all network DSS settings are refreshed system-wide.</p> <p>Note DSS button LEDs change state immediately when the status of the DSS button changes - regardless of this timer value.</p> <p>Possible values:20~180 seconds (default = 30)</p>
24 Outgoing Number Display Timer	<p>This timer sets how long dialed numbers will display on telephone LCDs for outgoing line calls.</p> <p>Possible values: 1~120 seconds (default = 10)</p>
25 Page Auto Disconnect Timer	<p>Automatically disconnects the station from a Page call if the station does not hang-up when this timer expires (1~240 seconds in one second intervals).</p> <p>Default=10 seconds</p> <p>The station must be enabled for this feature in Prog 103-44 for this timer to apply to the Page call.</p>
26 Caller ID Display Timer	<p>This timer determines how long Caller ID information displays on telephone LCDs after a call is answered (1~300 seconds in one second intervals).</p> <p>Default=15 second</p>

105 System Data

Prerequisite Program: None

This command assigns system settings for your Strata CIX.

1. In Network eManager, click System > System Data.
2. Enter System Parameter data using the table below.
3. **Get Default** sets all values to factory default.
4. Click **Submit**.

FIELD	DESCRIPTION
01 Executive Override	Enable break in warning tone for Executive Override. Possible values: Enable (default) or Disable
02 Station MOH Source	Music On Hold selection for private lines, Tie lines and stations. Refer to PRG109 for equipment MOH assignments. Possible values: Quiet Tone, External 1 ~ 15, Internal (default)
03 Ring Transfer Tone	Determines whether a call hears RBT or MOH while being transferred and prior to the destination party answering. Possible values: RBT (default) or MOH
04 Transfer Privacy	Transfer Privacy enabled: CO line buttons that have multiple appearances will only flash and ring on the transferred-to telephone; the same CO line button on other telephones will be red-busy. Transfer Privacy Disabled: CO line buttons that have multiple appearances will flash and ring on all telephones having the CO line button appearance. Possible values: Enable (default) or Disable
05 Privacy Override	Enables warning tone to members of a call prior to that call's being subject to Privacy Override or Attendant Monitor. Possible values: Enable or Disable (default)
06 Credit Card Code	Enter Service Identifier for Credit Card Calling. If no value is entered in this field any previously programmed data is lost. Possible values: Up to 32 digits (default = no value)
07 Credit Card Digits	Minimum Dial Digits required for Credit Card Calling. This should be the quantity of digits in a credit card number. If this quantity of digits is not dialed when making credit card calls, the caller will be disconnected. This is to ensure that the call is charged to a credit card. DRL tables in Program 111 and OLGs in Program 306 must be enabled with credit card calling for this feature to be active. Users must be assigned to a DRL table enabled with credit card calling and call out on a credit card calling enabled OLG for this featured to be applied to the call. Possible values: 1~32 (default = 21)
08 E911 Service	Enable E911 Service availability. Possible values: Enable (default) or Disable

FIELD	DESCRIPTION
09 DR Override by SSD	Enable DR Override by System Speed Dial. Possible values:Enable (default) or Disable
10 Auto Station Release	Enable Automatic Station Release - when the other party disconnects the station is automatically set to idle. Possible values:Enable (default) or Disable
11 ISDN SPID	Enable Auto Service Profile Identifier (SPID). Possible values:Operable or Not Operable (default)
12 Night Mode Relay	Assign BIOU Relay as the Night Relay. This relay activates when the system is in the Night Mode. Possible values:0~8 (default = 0) BIOU1 provides relays 1 to 4; BIOU2 provides relays 5 to 8 Note CIX100 (ACTU) and CIX200 (LCTU): The built-in relay is programmed as relay 5. For this operation, in Program 100 the BIOU2 must be installed in Cabinet 2, Slot 5, PCB code 20.
13 BGM External Paging	Set the External Page Group Number that includes the external paging zones to which BGM will be sent. See Program 503. Possible values:0~4 (CIX100) 0~8 (CIX200) 0~16 (CIX670) 0~24 (CIX1200) (default = 0)
14 Lost Call Destination	Enter Lost Call Destination. Any valid DN such as PDN, PhDN or Pilot DN. Possible values:Any DN (Up to 5 digits) (default = no value)
15 COS Override Code	Class of Service Override Code Digits (1-8 digits). The digit length of COS override codes. COS override codes are set in Program 510. Possible values:1~8 (default = 1)
16 Multi-Conference	Enable Multi-Conference capabilities for Analog Internal Calls and Outgoing Calls. Possible values:Enable or Disable (default)
17 Caller Number Display	Enable Calling Number Display. If a soft key display competes with a Caller ID, the Caller ID displays if enabled. Otherwise, the soft key function will continue to be displayed. Possible values:Enable (default) or Disable

FIELD	DESCRIPTION
18 Night Bell Relay	<p>Assign BIOU Relay (1~8) as the Night Relay - this relay activates when the system is in the Night Mode.</p> <p>BIOU1 provides relays 1 to 4.</p> <p>BIOU2 provides relays 5 to 8</p> <p>Note The CIX100 ACTU and CIX200 LCTU built-in relay is programmed as relay 5. For this relay operation, a virtual BIOU2 is installed, as default, in a virtual equipment position - Cabinet 2 slot 5. (Cab. 02 slot 05, PCB code 20, in prog. 100)</p> <p>To install an actual BIOU2 and disable the ACTU built-in relay, use the programming telephone to remove the virtual BIOU2 and then install the actual BIOU2 in Cab. 01/slot 01~08 in the normal manner.</p>
19 Display Preference	<p>Select whether to display DNIS or Caller ID.</p> <p>Possible values:DNIS (default) or Caller ID</p>
20 Transit Counter	<p>Select the Networking Transit Counter. This device limits the number of nodes through which a Strata Net call can pass before being terminated as a lost call.</p> <p>Possible values:0~128 (default = 1)</p>
21 Primary Clock	<p>Enter data as xxyyzz. (xx = cabinet, yy = slot, zz = channel)</p>
22 Secondary Clock	<p>zz=channel 01 if clock source is RPTU or RDTU zz=channel 01, 02, 03, or 04 if clock source is RBUU/RBUS or RBSU</p> <p>Example: If the Primary Clock Source should be assigned to an RPTU in Cabinet 5, slot 2, enter 050201.</p> <p>Cabinet numbers:</p> <p>CIX100 and CIX200: Select 01 for Base and Expansion cabinet. CIX670: Select 01 for Base and 02~07 for Expansion cabinets. CIX1200: Select 01 for Base and 02~12 for Expansion cabinets</p> <p>Slot numbers:</p> <p>CIX100: Select 01~04 for Base slots and 05~08 for Expansion slots. CIX200: Select 01~03 for Base slots and 01~04 for Expansion slots. CIX670: Select 01~08 for Base slots and 01~10 for Expansion slots. CIX1200: Select 01~08 for Base slots and 01~10 for Expansion slots</p>
23 Call History Prefix 1	<p>Add the dialing prefix 1 when using the callback feature in Call History.</p> <p>Possible values:Add (default) or Do Not Add</p>
24 Emergency Digits Sent	<p>Enter an alternative emergency dialing string. If no value is entered in this field any previously programmed value is overwritten.</p> <p>Possible values:Up to 5 digits (default = 911)</p>
25 DP Make Ratio	<p>Select the Dial Pulse Make/Break ratio.</p> <p>Possible values:33% (default) or 40%</p>

System

FIELD	DESCRIPTION
26 Call Button Jumping	Select whether to execute Jumping LED. If enabled, line calls move from a telephone DN button to a line button after they are answered. After the call is answered the DN button is cleared to receive another call. With this operation the DN acts as an answer button for the telephone. This operation only applies if the line that is answered has a CO, GCO, or Pooled line button appearance on the telephone. If disabled, line calls remain on the DN after they are answered. Possible values: Enable (default) or Disable
27 Set Domestic Code	Set to 0 (zero) to enable the CIX to insert the leading zero when receiving a National CLI (not used in US)
28 Set International Code	Set to 00 (zero zero). Enables CTX to insert two leading zeros when receiving an International CLI (not used in US)
29 CPN Numbering Plan	Called Party Number numbering plan format. Possible values: Unknown (default) or ISDN
30 SLT Recall Timer	Hooking = 100ms, On-Off Hook = 500ms
31 Analog Trunk Hunting	This parameter defines the order in which analog trunks are selected during the outgoing call trunk selection process. Possible values: Terminal (default) or Cyclical
32 Display Check Sum Error	Enable a System Checksum error to be displayed and an error log to be created. Possible values: Enable or Disable (default)
33 Analog Tie Line Disconnect	Analog Tie Line Disconnect Timer enables tandem analog Tie lines to automatically disconnect if the timer expires. Possible values: Enable or Disable (default)
34 Analog DID Method	Analog DID method: Normal (DTMF)/MFC-R2 3 digits/MFC-R2 4 digits Possible values: Normal (default), MFC-R2 3, MFC-R2 4
35 ALaw/MuLaw	Choose the companding technique appropriate to the local PSTN. Mu Law in North America. Possible values: A Law or Mu Law (default)
36 Play Melody	Whether to play melody or not Possible values: 1 - Start, 2 - Stop Default: 2 - Stop
37 Select Melody	Select melody Possible values: 1 - Melody1, 2 - Melody2 Default: 1 - Melody1

FIELD	DESCRIPTION
38 Internal Pad	<p>Whether to insert internal pad or not</p> <p>Possible values: 1 - Enable, 2 - Disable</p> <p>Default: 2 - Disable</p>
39 Std. Tel. Ringing Cadence	<p>Select the Ringing Cadence for Standard Telephone circuits.</p> <p>Note This does not apply to Digital or IP telephones.</p> <p>Ringing Type 1 External Ring: 20Hz, 1sec. ON - 3sec. OFF Internal Ring: 20Hz, 0.4sec.ON - 0.2sec. OFF 0.4sec. ON - 3sec. OFF Recall:20Hz, 1sec. ON - 1sec. OFF</p> <p>Ringing Type 2 Ringing Type2 is the same Ringing Cadence as DK. External Ring:20Hz, 0.4sec. ON - 0.2sec. OFF 0.4sec. ON - 3sec. OFF Internal Ring:20Hz, 1sec.ON - 3sec. OFF Recall:20Hz, 1sec. ON - 3sec. OFF</p>
40 Sys CF Cascade	<p>Enable: A call that forwards to a device that is also System Call Forwarded will be sent to the device's System Call Forward destination.</p> <p>Note If enabled, the SCF alternate destination set in Prog 500-05 will be ignored.</p> <p>Disable: A call that forwards to a device that is System Call Forwarded will not follow the device's System Call Forward.</p> <p>Possible values:Enable or Disable (default)</p>
41 CSTA B-Ch. Operation	<p>Enabled - CSTA shall provide full 'B' Channel path information. Disabled - CSTA shall provide channel group only.</p> <p>Possible values:Enable (default) or Disable</p>
42 ISDN Complete IE Option	<p>Whether to append Sending Complete IE into SETUP message and INFO message in ISDN.</p> <p>Possible values:Enable (default) or Disable</p>
43 Repeat Last No. Dialed	<p>Enable - store dialed numbers that are not complete in the last number dialed buffer.</p> <p>Disable - only store complete telephone numbers in the last number dialed buffer.</p> <p>Possible values:Enable (default) or Disable</p>
44 Default Calling Number	<p>Enabled - the system will send the default Calling Number to the PSTN when stations make ISDN calls in the local node.</p> <p>Disable - the system will not send the default Calling Number to the PSTN on ISDN calls in the local node.</p> <p>Possible values:Enable or Disable (default)</p>

System

FIELD	DESCRIPTION
45 DSS Ringing/DND Indication	<p>Select whether DSS LEDs should flash red, light steady or not light when their respective Directory Numbers are ringing/DND.</p> <p>Ringing – DSS LEDs flash red when their respective Directory Numbers are ringing or in DND.</p> <p>Idle – DSS LEDs are idle (not lit) when their respective Directory Numbers are ringing and flash when in DND.</p> <p>Idle/DND-On – DSS LEDs are idle (not lit) when their respective Directory Numbers are ringing and steady lit when in DND.</p> <p>Possible values: Ringing (default), Idle or Idle/DND On</p>
46 Caller ID Call Types	<p>Enable this feature if CO line Caller ID should display on the LCD of a station that receives a Forwarded, Transferred, or Recall call.</p> <p>Disable this feature if the originating Station Name\PDN should display on the LCD of a station that receives a Forwarded, Transferred, or Recall call.</p> <p>Possible values: Enable (Default) or Disable</p>
47 ISDN CPN: Number Type	<p>ISDN Calling Party Number type of number setup message format.</p> <p>Possible values: System (Default), Unknown, International, National, Network, Subscriber, Abbreviated Enable call.</p>
48 ISDN CPN: Numbering Plan	<p>ISDN Calling Party Number numbering plan ID Setup message format.</p> <p>Possible values: System (Default), Unknown, ISDN, Data, Telex, National Std, Private</p>
50 LCD Keystrip Refresh Interval	<p>The CIX processor can automatically send a refresh signal to all LCD keystrips.</p> <p>This is the time period, measured in hours, between refresh commands sent to the telephone LCD keystrips.</p> <p>Possible values: 0~24 hours (Default is 1 hour.) 0 = No refresh sent</p>
51 Caller ID Line Access Code	<p>This is the line or trunk access code the telephones will automatically dial to access an outgoing line when pressing the Call softkey to dial a selected Caller ID telephone number.</p> <p>Default is 9 (Maximum of 8 characters)</p>

System Call Forward

Program Number(s): 500 and 504

Set up System Call Forward (SCF) parameters using the following programs:

1. In Network eManager, click System > System Call Forward.
2. Enter Program 500 data; enter Program 504 data.
3. **Get Default** sets all values to factory default.
4. Click **Submit**.

500 / 504 System Call Forward Assignment

Prerequisite Program: None

This assignment is used to configure up to 32 system call forward patterns. Station DNs are assigned to these patterns in the station COS assignments.

Note The Administrator programs the condition of transfer by setting Call Type, Period and Telephone Status. Destinations 1 and 2 should be programmed after transfer conditions are set.

FIELD	DESCRIPTION
00 System Call Forward Template	Select the SCF pattern number to configure. Possible values: 0~4 (CIX/CTX100 & CTX28 & CIX40), 0~10 (CIX/CTX670 & CIX200 Basic), 0~32 (CIX/CTX670 Exp), 0~10 (CIX200 Basic HCTU only), 0~48 (CIX1200 Exp. HEXAU or HEXBU) (default = no value)
02 Active Telephone Status	Select the telephone DN status that should cause this SCF pattern to operate. Possible values: No Forwarding, Busy, No Answer, Busy No Answer or DND (default = No Forwarding)
03 Telephone Status	Select the telephone DN status that should cause this SCF pattern to operate. Possible values: No Forwarding, Busy, No Answer, Busy No Answer or DND (default = No Forwarding)
04 Call Type	Select the type of call that should forward in this pattern. Possible values: CO Loop or Grd, DID, Tie, Ring Transfer and Internal (default = no value)
05 Period	Select the system time period in which this SCF pattern should operate. Possible values: Day, Day2 or Night (default = Day)
06 Destination 1	Enter the first destination to which the call should forward. Possible values: Up to 32 digits (default = no value)
07 Destination 2	Enter an alternate destination to which the call should forward. Possible values: Up to 32 digits (default = no value)

System

Copy

The copy function enables you to selectively copy SCF destinations to any or all SCF segments and any or all SCF templates. It combines Programs 500 and 504 on the same screen.

1. Select System > System Call Forward > a SCF template (1-32), and then a Telephone Status (example "Busy No Answer"). The System Call Forward screen displays showing the status of the first available call forwarding system.
2. Select the needed values from the drop-down menus for the System Call Forward and Telephone Status fields. These fields are required. As soon as the second field is selected the full page displays for editing.

Note If it is not yet configured, the Telephone Status field indicates No Forwarding.

3. Select Call Type and Period by highlighting the desired line in the display.
4. Type the needed information into the Destination 1 and 2 fields. Destination 1 is always required, Destination 2 is optional.
5. Click **Submit** to send the data to the CIX.
6. Click **Submit** to send the destination assignments to the CIX
... or click **Copy** to display the Copy dialog box. You can click on **Copy** at any time to copy Destinations to any SCF template, Call type and period, including all SCF segments and templates.

Copy Dialog Box

To copy SCF Destinations to any selected SCF assignment click **Copy** on the System Call Forward screen. The System Call Forward Range Copy screen displays.

The dialog box is titled "Copy Destinations" and contains the following sections:

- Copy Destinations:** Includes checkboxes for "Destination 1" and "Destination 2", and a "Prompt On Error" checkbox.
- To Period:** Includes checkboxes for "Day", "Day 2", "Night", and "All".
- To Call Type:** Includes checkboxes for "CO Loop or Grd", "Ring Transfer", "DID", "Internal", "TIE", and "All".
- To Status:** Includes checkboxes for "Busy", "DND", "No Answer", and "Busy No Answer".
- To System Call Forward Template:** A grid of checkboxes for templates 01 through 48, plus an "All" checkbox.

Buttons at the bottom: "Copy Now" and "Cancel".

To select the Destination(s) that should be copied

1. You can remove a destination entry by removing the checkmark from it.
2. Select the appropriate Period, Call type, Status and SCF assignments to which the destination(s) should be copied.
3. Click **Copy Now**. Your entries are submitted to the CIX and the destination(s) are copied to all assignments that you selected.

Possible Errors

- If you attempt to remove Destination 1 (only) when there is a Destination 2 assigned.
- If you attempt to assign Destination 2 when Destination 1 is not assigned.

Notes

- If you check “Prompt on Error,” the copy function stops if one of the above errors occurs. You are then given a choice to continue or abort. Continue skips the error and does not perform the copy.
- If you do not check “Prompt on Error,” all errors, if any, are skipped and the copy is not executed.
- You can assign or remove both destinations at the same time without causing an error.

System Call Forward Table View

SCF Table View shows the entire set up of all available system call forward levels.

To access the SCF Table View

Select System > SCF Table View or if you are in Prog 500 or 504, click the **SCF Table View** button.

See [Table Views](#) in Chapter 2 for table functionality.

501 System Speed Dial

Prerequisite Program: None

System Speed Dial consists of up to 800 pre-programmed numbers each containing up to 32 digits. If the number being entered exceeds the 32 digits, the next speed dial location will automatically be appended to create longer numbers. One other speed dial location can be nested within the number for dialing a common routine with the number (see “[516 Station Speed Dial](#)” on [page 5-40](#) for more information about nesting).

1. Select > System > System Speed Dial.
2. Enter Program 501 data.
3. **Get Default** sets all values to factory default.
4. Click **Submit**.

FIELD	DESCRIPTION
00 Speed Dial Index	Enter the speed dial bin location. Possible values:000~799 (default = no value)
01 Number	This is the dialable number stored in the speed dial bin. Possible values:Up to 32 digits, 0~9, *, # and Pauses (default = no value) To enter pauses enter Px, where x equals 1~9 (seconds), which is the length of the pause.
02 Name	This is the Name that appears on Telephone LCD dial directories. Possible values:Up to 8 ASCII characters (default = no value)

System Speed Dial Table View

System Speed Dial Table View shows the entire set up for all speed dial numbers.

To access the System Speed Dial Table View

Select System > System Speed Dial Table View or if you are in Prog 501, click the **System Speed Dial Table View** button.

Index	Dialing Code	Number	Name
000	*200	01	02
001	*201		
002	*202		
003	*203		
004	*204		
005	*205		
006	*206		
007	*207		
008	*208		
009	*209		
010	*210		
011	*211		
012	*212		
013	*213		
014	*214		
015	*215		
016	*216		
017	*217		
018	*218		
019	*219		
020	*220		
021	*221		
022	*222		
023	*223		
024	*224		

Day Night Service

Program Number(s): 112, 106 and 113

Note Refer to Automatic Day Light Savings Time Change, Program Number “121 Automatic Day Light Savings Time Change” on page 10-4.

The programs that follow are used to set up Day and Night modes in Strata CIX.

1. Select > System > Day Night Service.
2. Select the Tenant number for which the daily schedules will be configured.
Possible values: 1~8 (default = no value)
3. Enter the Calendar Day (YYYYMMDD) to assign a Working Day Type schedule
... or click on one of the following buttons:
 - **List** – View a summary list of programmed Calendar days.
 - **Copy Tenant** – Copies the currently viewed record to another record(s).
 - **Get Default** - Restores factory default data.
4. Enter remaining Program 112 data.
5. Enter Program 106 data.
6. Enter Program 113 data.
7. Click **Submit**.

112 Day/Night Mode Calendar

Prerequisite Program: 106

This program enables you to assign Working Day Types for up to 128 unique Calendar Days. These settings override the default system schedules in the CIX to enable Day/Night scheduling for unique circumstances.

FIELD	DESCRIPTION
01 Calendar Day	Enter the Calendar Day for which to assign a Working Day Type schedule. Possible values: YYYY = Year, MM = Month, DD = Day (default = no value)
02 Working Day Type	Select the Working Day Type. Possible values: Delete, Work Day, Non-Work Day or Holiday, (default= no value)



106 Day/Night Mode Day of Week Mapping Assignment

Prerequisite Program: 113

The Day of the Week schedule defines each day as the type of day the schedule shall follow. These types of days are called Work Day, Non-work Day, and Holiday. Each day of the week can be classified.

FIELD	DESCRIPTION
01 Monday	Assign the type of day schedule that is to be used for each day of the week. Possible values: Work Day, Non-Work Day (default) or Holiday
02 Tuesday	
03 Wednesday	
04 Thursday	
05 Friday	
06 Saturday	
07 Sunday	

113 Day/Night Mode Daily Schedule

Prerequisite Program: None

The Day/Night Mode daily schedule defines the times for the start of the Work Day, Non-work Day, and Holiday for each of the modes (Day, Day2, Night) per Tenant. Each “type of day” defined in “[106 Day/Night Mode Day of Week Mapping Assignment](#)” on [page 4-26](#) requires an assigned schedule.

Note The start time for Day 1 mode equals the end time for Night mode.

FIELD	DESCRIPTION
Tenant Number	Select the Tenant number for which the daily schedules will be configured. (This feature is available with R2.2 or higher.) Possible values:1~8.
Work Day	Enter the Day1, Day2 and Night Mode start time for Work Day day type.
• 01 Day1 Mode/ Work Day	Possible values:hhmm; hh = hour (00~23, 99), mm = minutes (00~59, 99) (default = 9999)
• 02 Day2 Mode/ Work Day	Note 9999 deletes or skip modes.
• 03 Night Mode/ Work Day	
Non-Work Day	Enter the Day1, Day2 and Night Mode start times for Non-Work Day day type.
• 04 Day1 Mode/Non-Work Day	Possible values:hhmm; hh = hour (00~23, 99), mm = minutes (00~59, 99) (default = 9999)
• 05 Day2 Mode/Non-Work Day	Note 9999 deletes or skip modes.
• 06 Night Mode/ Non-Work Day	
Holiday	Enter the Day1, Day2 and Night Mode start times for Holiday Day day type.
• 07 Day1 Mode/ Holiday	Possible values:hhmm; hh = hour (00~23, 99), mm = minutes (00~59, 99) (default = 9999)
• 08 Day 2 Mode/ Holiday	Note 9999 deletes or skip modes.
• 09 Night Mode/ Holiday	



PAD Values

PAD Values Interface

Network eManager displays PAD values as a worksheet (partial example below). To change a value click on the number. The line will expand and up/down arrows (spin arrows) will appear. Click on the arrows to adjust the PAD level. The changes are only in the worksheet until it is submitted. You can change as many PAD values as you like, then submit once to change the system database.

Net Gain < 0dB < Net Loss		Compared to default				Change Com	
Sender PAD Device Number		1	2	3	4	5	6
Analog Telephone	1	0	0	0	6	6	6
DKT	2	0	0	0	6	6	6
Analog Trunk	3	0	0	6	6	6	6
T1 Trunk	4	6	6	6	0	0	0
ISDN Station	5	6	6	6	0	0	0
ISDN Trunk	6	6	6	6	0	0	0
Conference Bridge	7	0	0	0	0	0	0
Music Source	8	0	0	0	0	0	0
External Paging Device	9	0	0	6	6	6	6
IPT1000 Telephone	10	-6	3	-6	0	0	0
IPT2000 Telephone	11	12	3	12	12	12	12
PAD Group 1	101	0	0	0	0	0	0

Click on a value to change it.

Export

The Worksheet can be exported. The Export button stores the worksheet as a comma delimited file on the local PC. The exported file can be opened and modified using word processing or spreadsheet programs.

Import

A worksheet file can be imported as a worksheet. The worksheet can be compared to the default PAD values or to the system database. The PAD value worksheet can be exported before making changes to the PAD settings. If necessary, the old settings can be restored by importing the worksheet file.

Change Compare

When a worksheet is compared to the system database or the default values, the differences can be seen as highlighted values in the worksheet.

Load Default

Loads the PAD Table default values into the worksheet. Click on the **Submit** button to restore the default PAD values in the CIX database.

CAUTION! Any PAD groups you have created are not part of the default. These groups will be lost when the default values are restored.

PAD Table

Program Number(s): 107, 108 and 114

Assign PAD groups, PAD tables and PAD conference tables using these programs.

1. Select System > PAD Table.
2. Enter Program 107 data.
3. Enter Program 108 data.
4. Enter Program 114 data.
5. Click **Submit**.

107 PAD Table Assignment

Prerequisite Program: None

Assigns additional Sender and Receiver PAD values to PAD groups in the PAD table.

FIELD	DESCRIPTION
01 Sender PAD Device Number	<p>Enter Sender PAD device or group. See Table 4-2 or use drop-down menu.</p> <p>Possible values: Analog telephone, DKT, Analog trunk, T1 trunk, ISDN station, ISDN trunk, CONF bridge, Music source, EXT. paging, IPT-B, IPT-L/SIP, MIPU/GIPU_IPT2000/IP5000, MIPU/GIPU-Strata Net, SIP Trunk, PAD group 1~17. (default = no value.)</p> <p>CIX100 - 6 PAD group numbers CIX200/670/1200 Basic - 10 PAD group numbers CIX670, CIX1200 Expanded - 32 PAD group numbers</p>
02 Receiver PAD Device Number	<p>Enter Receiver PAD device or group number. See Table 4-2 or use drop-down menu.</p> <p>Possible values: Same as above CIX100 - 6 PAD group numbers CIX200/670/1200 Basic - 10 PAD group numbers CIX670, CIX1200 Expanded - 32 PAD group numbers)</p>
03 PAD Loss	<p>Enter PAD Value (see Table 4-2 or use the drop-down menu). The value shown represents the net effect.</p> <p>Note To PAD is to insert loss; therefore, "negative loss" equals net gain.</p> <p>Possible values: 1 = 6 dB Net Gain More volume 2 = 3dB Net Gain 3 = 0dB 4 = 3dB Net Loss 5 = 6dB Net Loss 6 = 9dB Net Loss 7 = 12dB Net Loss 8 = 15dB Net Loss (default = no value)</p> <div style="text-align: center;"> </div>

System

Program 107 PAD Table Example

If the Sender is an analog telephone (PAD device number 1) and the receiver is a T1 trunk (PAD device number 4), then the PAD value is 6. (6 = 9dB Net Loss).

PAD group numbers are assigned in Program 108 PAD Group Assignment.

Net Gain < 0dB < Net Loss		Compared to default																				
		Change Compare																				
		Undo																				
		Load Default																				
		Import																				
		Export																				
		Submit																				
		Refresh																				
		Print																				
Sender PAD Device Number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	101	102	103
Analog Telephone	1	0	0	0	6	6	6	X	-	0	0	0	0	0	0	0	0	0	0	0	0	0
DKT	2	0	0	0	6	6	6	0	-	0	3	0	0	0	0	0	0	0	0	0	0	0
Analog Trunk	3	0	0	6	6	6	6	X	-	6	0	0	0	0	0	0	0	0	0	0	0	0
T1 Trunk	4	6	6	6	0	0	0	0	-	6	3	0	0	0	0	0	0	0	6	0	0	0
ISDN Station	5	6	6	6	0	0	0	0	-	6	3	0	0	0	0	0	0	0	6	0	0	0
ISDN Trunk	6	6	6	6	0	0	0	0	-	6	3	0	0	0	0	0	0	0	6	0	0	0
Conference Bridge	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Music Source	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Paging Device	9	0	0	6	6	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IPT1000 Telephone	10	-6	3	-6	0	0	0	-6	-	-6	0	0	0	0	-6	0	0	0	-6	0	0	0
IPT2000 Telephone	11	12	3	12	12	12	12	12	-	6	0	0	0	0	9	0	0	0	12	0	0	0
LIPU-StrataNet	12	12	0	12	12	12	12	12	6	6	0	0	0	0	9	0	0	0	12	0	0	0
BIPU-StrataNet	13	0	0	-3	-3	-3	-3	-3	-3	-3	0	0	0	-6	-6	0	0	0	0	0	0	0
PRI-StrataNet	14	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	3	0	0	0
IPT2000 Tel. on MIPU	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIPU-StrataNet	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIPU-SIP Trunk	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VM on LVMU/GVPH	18	0	0	0	6	6	6	0	-	0	-6	-6	-6	-6	0	-6	-6	-6	0	0	0	0
PAD Group 1	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAD Group 2	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAD Group 3	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAD Group 4	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAD Group 5	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

108 PAD Group Assignment

Prerequisite Program: None

You can enter up to 32 additional device groups to the PAD table to deal with exceptions to the default table.

FIELD	DESCRIPTION
00 PAD Group Device Type	Enter the Device Type. Possible values: Station, Analog trunk, T1 trunk, ISDN trunk, CONF bridge, Music source, EXT. paging (default = no value.)
01 PAD Group Number	Enter the PAD Group Number. Possible values: 0~6 (CIX100) 0~10 (CIX200, CIX670 Basic, CIX1200 Basic) 0~32 (CIX670 Exp, CIX1200 Exp) (default = 0)

Table 4-2 Program 108 PAD Group Device Type Examples

Device Type	Possible Values
Station	0~99999 (PDN)
ISDN Trunk	Channel Group No. 1~128
Analog Trunk, T1 Trunk	Trunk Number 1~264
Conference Bridge	None (Conference Bridge is only one)
Music Source	Music Port 1~15
External Paging Device	Zone Relay Number 1~8

114 PAD Conference Assignment

This program enables you to assign PAD values for combinations of analog trunks and telephones in conference.

FIELD	DESCRIPTION
01 PAD Conference Trunks	Enter the number of analog trunks. Possible values:0~6 (default = 0)
02 PAD Conference Telephones	Enter the number of analog telephones. Possible values:0~8 (default = 0)
03 PAD Conference Value	Enter the desired PAD Value for the combination of analog trunks and telephones specified in 01 PAD Conference Trunks and 02 PAD Conference Telephones above. The value shown shows the net effect. Note To pad is to insert loss; therefore, "negative loss" equals net gain. Possible values:1 = 6 dB Net Gain 2 = 3dB Net Gain 3 = 0dB 4 = 3dB Net Loss 5 = 6dB Net Loss 6 = 9dB Net Loss 7 = 12dB Net Los 8 = 15dB Net Loss (default = no value).

		Compared to default		Change Compare		Undo							
Net Gain < 0dB < Net Loss		Load Default		Import		Export		Submit		Refresh		Print	
Number of Analog Trunks	0	1	2	3	4	5	6	7	8				
Number of Analog Telephones													
0	0	0	0	0	0	3	3	6	6				
1	0	0	0	0	3	3	3	6	-				
2	3	3	3	3	3	6	6	-	-				
3	6	6	6	6	6	9	-	-	-				
4	9	9	9	9	9	-	-	-	-				
5	9	9	9	9	-	-	-	-	-				
6	9	9	9	-	-	-	-	-	-				

Miscellaneous System Commands

110 Password

Prerequisite Program: None

This command assigns the password. The system has two passwords levels. Logging into the system with the Level 1 password enables the user to administer all system programs while the level 2 password provides restricted program administration.

1. Select System > Password.
2. Enter 00 Password Level.
3. Enter 01 Password.
4. **Get Default** sets all values to factory default.
5. Click **Submit**.

FIELD	DESCRIPTION
00 Password Level	<p>Enter the digit 1 or 2 for the password as follows:</p> <p>Possible values: Enter 1 to set the unrestricted administration password. Enter 2 to set a restricted administration password. Level 2 users can administer all programs but are restricted from initializing the CIX and from updating the CIX software (default = 0000 (password will not display)).</p>
01 Password	<p>Enter a 1~16 digit password for the selected level.</p> <p>Note Only one password can be set for each level. Possible values: Up to 16 ASCII character (default = no value)</p>

109 Music on Hold

Prerequisite Program: None

This command assigns external Music on Hold (MOH) and Background Music (BGM) sources.

1. Select System > Music on Hold.
2. For fields 01~07, click in the adjacent radio button to activate MOH/BGM.
3. For fields 08~15, enter the equipment location identifier and check the Connected box to activate.
4. **Get Default** sets all values to factory default.
5. Click **Submit**.

FIELD	DESCRIPTION
01 MOH/BGM 1 (ACTU or BECU)	For MOH/BGM #2~#7, click in the radio button to enable MOH/BGM for the specified BIOU (MOH/BGM #1 enabled by default).
02 MOH/BGM 2 (BIOU1-J1)	Possible values: Enable (default) or Disable
03 MOH/BGM 3 (BIOU1-J2)	
04 MOH/BGM 4 (BIOU1-J3)	
05 MOH/BGM 5 (BIOU2-J1)	
06 MOH/BGM 6 (BIOU2-J2)	
07 MOH/BGM 7 (BIOU2-J3)	

FIELD	DESCRIPTION
08 MOH/BGM 8 (RSTU/BSLU Equip. No.)	Enter the analog station card equipment number to which MOH/BGM source #9~1510 is connected. Enter data as XXYYZZ:
09 MOH/BGM 9 (RSTU/BSLU Equip. No.)	XX=cabinet 01~07 YY=slot 01~10 ZZ=circuit 01~16
10 MOH/BGM 10 (RSTU/BSLU Equip. No.)	Example: If the MOH/BGM source should be assigned to an RSTU in cabinet 5, slot 2, circuit 3; enter 050203.
11 MOH/BGM 11 (RSTU/BSLU Equip. No.)	1. A PDN can not be assigned to an BSTU/BSTCIU/RSTU/BSLU/ASTU/LSLU equipment number if it is to be a MOH circuit. If a PDN is assigned to the circuit that will connect to a MOH/BGM source, you must first delete it using PRG201.
12 MOH/BGM 12 (RSTU/BSLU Equip. No.)	2. On CIX100, ASTU=010901and 010902. 3. On CIX200, LSLU=010401and 010402.
13 MOH/BGM 13 (RSTU/BSLU Equip. No.)	Cabinet numbers: <ul style="list-style-type: none"> • CIX/CTX100: Select 01 for Base and Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet.
14 MOH/BGM 14 (RSTU/BSLU Equip. No.)	<ul style="list-style-type: none"> • CIX/CTX670: Select 01 for Base and 02~07 respectively for each Expansion cabinet. • CIX1200: Select 01 for Base and 02~12 respectively for each Expansion cabinet.
15 MOH/BGM 15 (RSTU/BSLU Equip. No.)	Slot numbers: <ul style="list-style-type: none"> • CIX/CTX100: Select 01~04 for Base slots; 05~09 for Exp. • CIX/CTX100: Virtual Slot for ACTU Relay = Cab 02, Slot 05. • CIX200: Select 01~04 for either cabinet. • CIX/CTX670: Select 01~08 for Base slots; 01~10 for Exp. • CXI1200:Select 01~08 for Base slots; 01~10 for Exp. • CTX28 and CIX40 assignments are hard coded and cannot be changed. • Virtual Slot for GCTU Relay = Cabinet 02, Slot 05. <p>01, 01 - 8 digital tel on motherboard (CTX28, CIX40 R1HW and R2HW). 01, 02 - 3 CO lines on motherboard (CTX28, CIX40 R1HW), 4 (CIX40 R2HW) 01, 03 - no card (CTX28, CIX40 R1HW), GVPH (CIX40 R2HW) 01, 04 - 1 (Base) or 2 (GSTU) analog station ports (CTX28, CIX40 R1HW and R2HW) 01, 05 - GVMU (CTX28), GVPH (CIX40 R1HW), GIPx, MIPU or GCOCIH (CIX40 R2HW) 01, 06 - GIPx, MIPU16 or GCOCIH (CIX40 R1HW), no card (CTX28, CIX40 R2HW) 01, 07 - 8 digital tel on GCDU (CTX28, CIX40 R1HW and R2HW). 01, 08 - 3 CO lines on GCDU (CTX28, CIX40 R1HW and R2HW).</p>

I/O Device

Program Number(s): 803, 801 and 804

These commands assign LAN devices, RS-232C devices and device relationships for I/O Logical Devices SMDR, SMDI, CTI and physical ports.

1. Select System > I/O Device.
2. The tab sections are: I/O Logical Device (803), LAN Device (801), and RS232 Serial port (804).

803 Application Port Assignments

This program assigns one of the following:

- SMDR and CIX Proprietary Integration to the logical device and BSIS, RS-232 port numbers.
- ACD server, CIX Proprietary Integration and Attendant Console to BECU, Network Jack logical device and LAN port numbers. Refer to [Table 4-4](#) on [page 4-40](#).

FIELD	DESCRIPTION
00 Logical Device Number	<p>Select the 3 digit logical device number for SMDR, SMDI, and LAN devices or Network application. See Table 4-3.</p> <p>Possible values: 100 = SMDR 200~206 = CTI LAN devices or PCs (default = no value) - Do not use for My Phone Application or Feature Flex. 208 = Feature Flex (do not use for anything else) 300 = SMDI or CIX Proprietary Integration 301 = SMDI or CIX Proprietary Integration 400 = BLF (for CIX Attendant Console) 500 = DSS (for Telephone, DSS Console, and ADM DSS buttons) 600 = Traffic Report</p>
01 Device Connection	<ol style="list-style-type: none"> 1. Select RS-232 for serial connection to SMDR or SMDI devices or PCs. These devices are connected to BSIS, RS-232 ports. 2. Select LAN for Strata eManager, ACD Server, SMDR LAN connection, CIX Proprietary Integration, and Attendant Console PC. These devices are connected to the BECU Network Jack directly or via a HUB or LAN. <p>Possible values: None (default), LAN or RS-232</p>

FIELD	DESCRIPTION
Port Index No.	<p>Select the Device Port numbers (one port per device).</p> <p>Possible values: For a RS-232 connection: 1~4 (default = 1) For an LAN connection: 1~9 (default = 1) For BLF Networking: 11 For DSS Networking: 12</p> <p>Note</p> <ul style="list-style-type: none"> SMDR and SMDI devices can be assigned to any BSIS RS-232 Port. LAN devices and PCs can be assigned to logical Ports 1~9 according to the following logical device number assignments: LAN Port1 = device 200 LAN Port2 = device 201 LAN Port3 = device 202 LAN Port4 = device 203 LAN Port5 = device 204 LAN Port6 = device205 LAN Port7 = device206 For Network SMDR, when the Device Port is LAN, set the Client TCP Port Number to: 6000 - SMDR Call Accounting device that supports receiving SMDR data from multiple CIX nodes on one TCP port. 600x - SMDR Call Accounting device that does not support receiving SMDR data from multiple CIX nodes on one TCP port. Set each CIX node to a unique value. The MDR Call Accounting device must be capable of receiving data from each client port simultaneously.

Table 4-3 Device Table

Logical Device	Physical Device				Define I/O Logical Device Number
	LAN	PPP	RS-232C	Smart Media or Secure Digital	
SMDR	OK	-	OK	-	100
CTI	OK	-	-	-	200
	OK	-	-	-	201
	OK	-	-	-	202
	OK	-	-	-	203
	OK	-	-	-	204
	OK	-	-	-	205
	OK	-	-	-	206
JTAPI/Info Manager™/VCS™	OK	-	-	-	207
Feature Flex	OK	-	-	-	208
Stratagy or other SMDI	OK	-	-	-	300
Attendant BLF	OK	-	-	-	400
Attendant DSS	OK	-	-	-	500
Traffic Measurement	OK	-	OK	OK	600
SMDI	OK	-	OK	-	300

801 Network Jack LAN Device Assignment

Prerequisite Program: 803 on [page 4-36](#).

This assigns Strata CIX LAN parameters, enabling PC applications to connect to the BECU network jack.

1. Select > System > I/O Device.
2. Click the LAN Device tab.
3. Enter Program 801 data. Refer to [Table 4-4](#) on [page 4-40](#)
4. **Get Default** sets all values to factory default.
5. Click **Submit**.

FIELD	DESCRIPTION
00 LAN Port Index No.	Enter the port number of the LAN device to be assigned or select from the list. Refer to "803 Application Port Assignments" on page 4-36 . Possible values: 1~12 (default = no value)
01 Protocol	Select Communication Protocol. Possible values: TCP (default) or UDP Note Select UDP for Network DSS and TCP for CIX applications.
02 Application Type	Select the Operation Type. <ul style="list-style-type: none"> • If Server is selected, make an entry in 04 Server Port Number. • If Client is selected, make an entry in 05 Client IP Address. Possible values: Server (default) or Client
03 Data Flow	Select the data flow protocol for CIX and PC communications. Possible values: Synchronous or Asynchronous (default = Asynchronous)
04 Server Port No.	Enter the Server Port Number and proceed to 07 Read Retry Number. This field is required if Server was selected in 02 PC Operation Type above. If not, leave this field blank and proceed to 05 Client IP Address. Possible values: 0~65535 (default = 0)
05 Client IP	Enter the Client LAN IP Address. This field is required if Client was selected in 02 PC Operation Type above. Possible values: 0~255 for each octet (default = 0)
06 Client Port No.	Enter the Client Port number Possible values: 0~65535 (default = 0) For Central LAN SMDR in a Strata Net use the same port number if the SMDR Application supports receiving data from multiple nodes on one port (i.e. 6000). Use a unique port number in each node if the SMDR Application does not support receiving data from multiple nodes on a single port (i.e. Node 1=6000, Node 2=6001). Refer to Figure 4-1 on Page 4-40 .
07 Read Retry No.	Set the maximum number of Read Retries. Possible values: 0 ~ 10 (default = 1)

System

Miscellaneous System Commands

FIELD	DESCRIPTION
08 Write Retry No.	Set the maximum number of Write Retries. Possible values: 0 ~ 10 (default = 1)
09 Caller Name Set To CSTA	The Caller Name can be sent to the CSTA application. Possible values: Yes - Net Phone (Set the Caller Name to CSTA) or NO - Other CTI device (Do not send Caller Name) (Default)

Table 4-4 I/O Device Information

Program 803 SMDR SMDI CTI Port Assignments	Feature Flex	SMDI LAN CIX Proprietary MAS	SMDI LAN CIX Proprietary ES/IES32	BLF Attendant Console	DSS Buttons (DSS Console, DKT, & ADM)
Logical Device No.	208 CTI #8	300 SMDI #0	300 SMDI #0	400 BLF	500 DSS
Device Connection	LAN	LAN	LAN	LAN	LAN
Device Port No	8	10	10	11	12
Program 801 LAN Device Assignments	Feature Flex	SMDI LAN CIX Proprietary MAS	SMDI LAN CIX Proprietary ES/IES32	BLF Attendant Console	DSS Buttons (DSS Console, DKT, & ADM)
LAN Port No	8	10	10	11	12
Protocol	TCP	TCP	TCP	TCP	UPD
PC Operation Type	Server	Client	Client	Server	Server
Data Flow	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Server Port No.	1117	0	0	6000	3000
Client Port No.	0	1000	5000	0	0
Client IP	0	IP address of MAS 192.168.254.252	IP address of ES / IES32 192.168.254.252	0 0 0 0	0 0 0 0
Retry No.	1	1	1	1	1
Write Retry Counter	1	1	1	1	1

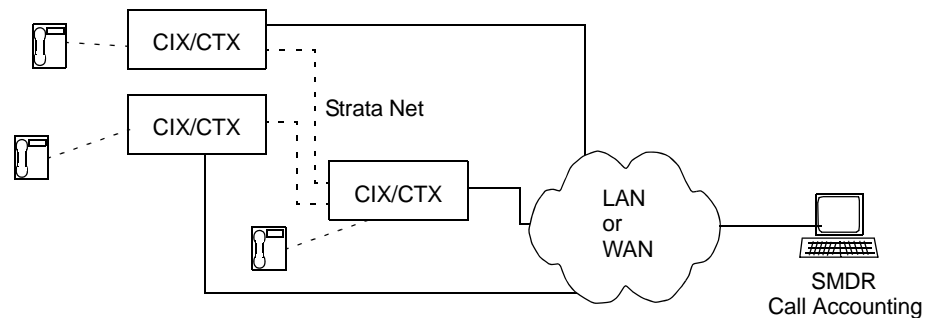


Figure 4-1 SMDR LAN Connection in a Strata Net

804 BSIS RS-232 Serial Port Setup

Prerequisite Program: None

Use this screen to setup the RS-232 serial ports on the BSIS PCB.

1. Select > System > I/O Device.
2. Click the RS232 Serial Port tab.
3. Enter Program 804 data.
4. **Get Default** sets all values to factory default.
5. Click **Submit**.

FIELD	DESCRIPTION
00 BSIS Port (1~4)	Enter the BSIS PCB port number. Possible values: 1~4 (default = no value)
01 Port Speed	Select the data speed for the BSIS port in bits per second (bps). Possible values: 300, 1200, 2400, 4800, 9600 (default), 19200, 38400 or 57600 Note The total combined maximum speed of BSIS ports cannot exceed 57,600 bps.
02 Port Parity	Select the parity error checking method used by the BSIS port. Possible values: None, Even or Odd (default)
03 Data Bits	Select Data Length. Possible values: 7 Bits (default) or 8 Bits
04 Flow Control	This setting indicates the type of flow control used between the BSIS port and the SMDI or SMDR device. To enable the CIX to buffer call records set this field to Flow. Possible values: None (default) or Flow
05 Wait Timer	Select the maximum time to wait for connection. The Timer value can be one through 255 seconds. Select 0 to set to permanent waiting. Possible values: 0~255 (default = 30)

115 Advisory Messages

Prerequisite Program: None

Specifies a set of messages that users may apply to their telephone to provide status information when others call their station. When the user sets a message on a telephone, LCD telephones that call this telephone will display the message. When the user sets a message, the message can be customized to include a variable directory number, time or date as part of the message.

1. Select System > Advisory Messages.
2. Select the Message Number.
3. Enter the desired message in 01 Message.
4. Select 02 Additional Digits Type.
5. **Get Default** sets all values to factory default.
6. Click **Submit**.

FIELD	DESCRIPTION
Message Number	Select from 5 pre-programmed messages or 5 custom messages. All messages (0~9) can be edited; the first 5 messages have commonly used default values. Possible values:0~4 = preprogrammed messages, 5~9 = custom messages (default = 0)
01 Message Text	Defines the text portion of the LCD Advisory Message to be displayed. The total message text, plus the user entered variables (4-digit time or date; or 1~5 digit DN) cannot exceed 16 characters total. Possible values:Up to 16 ASCII characters (default = no value)
02 User Entered Variable	Defines the text portion of the LCD Advisory Message to be displayed. The total message text, plus the user entered variables (4-digit time or date; or 1~5 digit DN) cannot exceed 16 characters total. Possible values:None (default), DN, Time or Date

Table 4-5 Advisory Message Default Code Table

#	Advisory Message	Type of Additional
0	OUT TO LUNCH	None
1	IN A MEETING	None
2	CALL	Directory Number
3	BACK AT	Time
4	RETURN ON	Date
5	(No Data)	None
6	(No Data)	None
7	(No Data)	None
8	(No Data)	None
9	(No Data)	None

116 Data Initialize

Prerequisite Program: None

This program is used to initialize the tables of selected programs in the Strata CIX system.

1. Select System > Data Initialize.
2. Select a Program to initialize from the 01 Command No. dialog box.
3. **Get Default** sets all values to factory default.
4. Click **Submit**.

116 DATA INITIALIZE

01 Command No.

500 System Call Forward
521 LCR Routing Plan Analysis Table
522 LCR Exceptional Routing Plan Analysis Table
523 LCR Route Plan Schedule Table
524 LCR Route Choice Table
525 LCR Route Definition Table
526 LCR Digit Modification Table
527 LCR Public Holiday Calendar Table
529 LCR Route Plan Schedule Table Time Zone
530 Destination Restriction/LCR Screening Table
531 Destination Restriction/LCR Screening Table for OLG
533 Destination Restriction Table
534 Exceptional Destination Restriction Table
651 Private Route Plan Analysis Table
653 Private Route Choice Table
654 Private Route Definition Table
655 Private Digit Modification Table

Submit Print Refresh Get Default

120 Tenant Assignments

Prerequisite Program: None

This program enables you to select an Attendant or Night Bell to ring when dialing 0 in Day 1, Day 2 or Day 3 mode for up to eight Tenants. You can also assign the general purpose relay to the Night Bell.

1. Select System > Tenant Data.
2. Enter the Tenant Number or use the pull-down to select a number.
3. Enter data.
4. **Get Default** sets all values to factory default.
5. Click **Submit**.

FIELD	DESCRIPTION
00 Tenant Number	Select Tenant. Possible values: 1~8. No Data (Default)
01 Dial 0 Call Day 1 Dst Type	This determines the destination type for calls dialing the Tenant Attendant Access Code in each tenant for each time mode (Day 1, Day 2 and Night). Important! The Tenant Attendant Access Code must be assigned in Prog 102. If it should be 0, the Attendant Console Group Access Code, which is 0, must be deleted. Possible values: No Data (default), Dialing Digits, Night Bell
02 Dial 0 Call Day 2 Dst Type	
03 Dial 0 Call Night Dst Type	
01 Dial 0 Call Day 1 Dst Digits	Enter the PDN of the Attendant to ring when dialing Tenant Attendant Access Code in Day, Day2, or Day 3 mode.
02 Dial 0 Call Day 2 Dst Digits	Possible values: Up to 32 digits for each Day Mode selected (default =no data)
03 Dial 0 Call Night 3 Dst Digits	
04 Night Mode Relay	Enter the General Purpose relay number assigned to the Night Bell. BIOU relays 1~8. This operation activates the relay continuously when the system is in the night mode. Possible values: BIOU 1 = relay 1~4 BIOU 2 = relays 5~8 ACTU, GCTU and LCTU = relay 5
05 Night Bell Relay	Enter the General Purpose relay number assigned to the Night Bell. BIOU relays 1~8. This operation activates the relay when a CO line or DID rings when the system is in night mode. The CO or DID line must be assigned to ring the night bell. Possible values: BIOU 1 = relay 1~4 BIOU 2 = relays 5~8 ACTU, GCTU and LCTU = relay 5

This chapter provides Strata CIX station programming information.

Assignment

Program Number(s): 200, 201, 203, 204, 214, 205, 213, 215, 208, 210, 216, 260, and 502

The following programs assign station data.

200 Station Data

Prerequisite Program: 100 [page 4-1](#)

This command assigns stations to the system.

1. Select Station > Station Assignments.
2. Click on the Basic tab.
3. To modify an existing station enter its DN number in the Primary DN field or select a DN from the list on the right side of the screen.
4. To create a new DN with custom settings click **Create**. A dialog box will appear.
 - Select PRG 200: DKT/SLT/IPT_B/SL_VMU if you are creating a Digital Key Telephone, Single Line Telephone or IPT-1020SD
 - Select PRG 260: IPT_L/SIP/IP_VA/IP_ATT/IP_VM if you are creating an IPT2000-, IP5000-series or a SIP telephone.
 - Enter the desired values.
 - Click **Submit**.
5. Delete – Enter a Primary DN or a range of Primary DNs to delete and click **OK**.
6. Change DN – Enter a DN in the Primary DN field and click **Change DN**. Enter the new DN assignment and click **OK**.
 - Setup the DN by adding values to the remaining fields.
 - **Get Default** sets all values to factory default.
 - Click **Submit**.

The following table takes you through the parameters for IP station assignment (PRG 260).

Table 5-1 Station Assignment Data for IP, and SIP Telephones (Prog 260)

00 Prime DN

Prime DN (enter an existing PDN or enter a PDN you wish to create for a new station).

02 PDN Equipment Number

Enter the PDN equipment number (0000 means auto assignment).

- IPT1020-SD must be installed on BIPU-M; IPT1020 cannot be installed on LIPU/LIPS, MIPU or GIPx.
- SIP phones must be installed on LIPU/LIPS, MIPU or GIPx; SIP phones cannot be installed on BIPU-M
- IPT2000 series and IP Softphones can be installed on LIPU/LIPS, MIPU, GIPx or BIPU-M (see Prog 260 for LIPU/LIPS, MIPU or GIPx PDN assignments). MIPU and GIPU require R5.0 software or higher.

Cabinet numbers:

- CIX100: Base, Exp.01
- CIX200: Base 01, Exp.02
- CIX670: Base 01, Exp 02~07.
- CIX1200: Base 01, Exp 02~12

Slot numbers:

- CIX100: Base 01, Exp.05~08
- CIX100: ACTU Relay Equipment= Cab 02, Slot 05.
- CIX100: ASTU Equipment=010901 and 010902
- CIX200: Base/Exp.01~04
- CIX200: LSLU Equipment=010401 and 010402.
- CIX670/1200: Base 01~08
- CIX670/1200: Exp.01~10

CTX28 and CIX40 assignments below are hard coded and cannot be changed.

01, 05 – GVMU - 28, GVPH - 40 R1HW, GIPx, MIPU or GCOCIH - 40 R2HW

01, 06 – GIPx, MIPU16 or GCOCIH - 40 R1HW, no card - 28, 40 R2HW

01 Type

Assign device types to GIPx, MIPU, LIPU/LIPS ports:

IPT2000-series telephones and IP Softphones are IPT (require End Point licenses).

SIP telephones are SIP (require End Point license).

IP Attendant Consoles are ATTENDANT (require Basic Port License).

VM Ports are VOICE MAIL (require Basic Port License and MAS HMP resource).

ACD Announcers are ACD ANNOUNCE (require Basic Port License and MAS HMP resource).

Note IPT1020-SD telephones cannot be assigned to GIPx, MIPU, LIPU/LIPS; they must be assigned to BIPU-M in Prog 200.

Table 5-1 Station Assignment Data for IP, and SIP Telephones (Prog 260) (continued)

03 LAN Interface Number	Enter "1" for an LIPU, GIPx or MIPU, enter "2" for an LIPS. Possible values: 1 (Default) or 2
05 COS Day1	Class of Service for Day1 mode. Possible values: 1~ 32 (default = 1)
<ul style="list-style-type: none"> • Day2 	Class of Service for Day 2 mode. Possible values: 1 ~ 32
<ul style="list-style-type: none"> • Night 	Class of Service for Night mode. Possible values: 1 ~ 32 (default = 1)
06 DRL Day1	Destination Restriction Level for Day1 Mode (used for credit card calling). Possible values: 1 ~ 16 (default = 1)
<ul style="list-style-type: none"> • Day 2 	Destination Restriction Level for Day2 Mode. Possible values: 1 ~ 16 (default = 1)
<ul style="list-style-type: none"> • Night 	Destination Restriction Level for Night Mode. Possible values: 1 ~ 16 (default = 1)
07 FRL Day1	Facilities Restriction Level for Day 1 Mode. Possible values: 1 ~ 16 (default = 1)
<ul style="list-style-type: none"> • Day 2 	Facilities Restriction Level for Day 2 Mode. Possible values: 1 ~ 16 (default = 1)
<ul style="list-style-type: none"> • Night 	Facilities Restriction Level for Night Mode. Possible values: 1 ~ 16 (default = 1)
08 LCR Group	Least Cost Routing Group Number. Possible values: 1 ~ 16 (default = 1)
09 QPL Day1	Queuing Priority Level for Day 1 Mode. Possible values: 1 ~ 16 (default = 1)
<ul style="list-style-type: none"> • Day 2 	Queuing Priority Level for Day 2 Mode. Possible values: 1 ~ 16 (default = 1)
<ul style="list-style-type: none"> • Night 	Queuing Priority Level for Night Mode. Possible values: 1 ~ 16 (default = 1)
10 Name to Display	Enter the name that should be displayed on telephone LCDs for this PDN. Possible values: 16 ASCII Characters (default = no data)
11 Dialing Progress Tone	Type of Tone to hear after dialing LCR access code. Possible values: Dial Tone (Default), Entry Tone or Silence

Station

Table 5-1 Station Assignment Data for IP, and SIP Telephones (Prog 260) (continued)

12 System Call Forward	<p>System Call Forward group number.</p> <p>0~4 (CIX/CTX100 & CTX28 & CIX40), 0~10 (CIX/CTX670/1200 Basic & CIX200), 0~32 (CIX/CTX670 with expansion processor), 0~48 (CIX1200 with A or B expansion processor).</p> <p>Default = 0.</p>
13 Call Pickup	<p>The station privilege to activate Call Pickup.</p> <p>Possible values: Permitted (Default), Group Only, Not Permitted</p>
14 Bearer Capability	<p>ISDN Bearer Capability the PSTN is expecting from non ISDN stations: 3.1kHzAudio (data and speech) or Speech.</p> <p>Important!</p> <p>Standard telephone type data devices (modems, G3-Fax signals) must be set for 3.1KHz audio on ISDN lines.</p> <p>The Strata Net IP network does not support 3.1KHz (data and speech). All standard telephone equipment must be set to 'Speech' if making calls over Strata Net IP.</p> <p>Possible values: Audio (Default) or Speech</p>
15 Display DN	<p>If this station is a member of a Hunt Group that has a Pilot Number and Pilot Display Number set in Prog 209-02 and Prog. 209-04 respectively, enter the HG Pilot Display Number in this field. This number will display on the LCD of telephones when calling or when called by this station or VM port.</p> <p>This is necessary for proper operation of Hunt Groups, including centralized Voice Mail, over Strata Net.</p> <p>Possible values: Dial String of 1~ 5 digits</p>
16 CESID	<p>E911 Calling Party Information identifier for this station (CESID). Should be a valid NANP telephone number.</p> <p>Possible values: Up to 16 digits (default = no data)</p>
17 Emergency Call Group	<p>The Emergency call group that this station belongs to.</p> <p>Possible values: 1 (default) ~ 8</p>
18 Remote CF/DND Password	<p>Password to remotely set or cancel DND or Station Call Forward from another CIX station or, for Call Forward only, from an external DISA line.</p> <p>Note: DND cannot be set/canceled remotely from a DISA line.</p> <p>Possible values: 1 ~ 4 digits (default = no data)</p>

Table 5-1 Station Assignment Data for IP, and SIP Telephones (Prog 260) (continued)

19 VMID Code	<p>Enter the voice mailbox number that should answer calls when this PDN calls voice mail, or when this PDN is called and then forwards to voice mail (this number is prefixed by codes in Prog 579, 11~16).</p> <p>Valid entries: digits 0~9, * and #, maximum 10 characters.</p> <p>This VMID code is sent to the voice mail device in SMDI packets or DTMF tones on direct calls to voice mail from the PDN and on calls to the PDN that forward to voice mail.</p> <p>Note: see Prog. 580 for SMDI or DTMF choice.</p> <p>Possible values: 1 ~ 10 digits (default = no data)</p>
20 VM MW Center Port	<p>Message Waiting Center DN.</p> <p>Enter the VM PDN or Pilot DN number that should display on telephone LCDs when calling Voice Mail or receiving calls from Voice mail.</p> <p>Possible values: Valid DN (default = no data)</p>
21 Travel COS Change	<p>Privilege Change the Traveling Class of Service Override Code.</p> <p>Possible values: Enabled or Disabled (default = Disabled)</p>
22 TGAC Override	<p>Trunk Group Access Code Override for Attendant console.</p> <p>Possible values: Enabled or Disabled (default = Disabled)</p>
23 Service Tones	<p>Disable Services Tone for Data Privacy. Service tone, such a Call Waiting Tone, should be disabled for modems, FAX machines, and similar devices.</p> <p>Possible values: Enabled or Disabled (default = Enabled)</p>
24 Call Waiting Tone	<p>Enable/Disable the station to receive call waiting (camp-on) and ring over busy (rob) tone.</p> <p>CW tone is always two beeps.</p> <p>ROB tone can be two beeps or continuous as set in PRG 204, 27.</p> <p>Possible values: Enabled or Disabled (default = Enabled)</p>
25 Dial Directory	<p>Privilege to put the user name in the list display of large LCD (Directory Assistance)</p> <p>Possible values: Enabled or Disabled (default = Enabled)</p>
26 Door Over DND	<p>Enable DND to be overridden by a door phone.</p> <p>Possible values: Override or Not Override (default = Not Override)</p>
27 Set System Speed Dial	<p>Privilege to set System Speed Dial numbers.</p> <p>Possible values: Enabled or Disabled (default = Disabled)</p>
28 Network COS	<p>Network Class Of Service number.</p> <p>Possible values: 1~ 32 (default = 1)</p>
29 Auto OCA	<p>OCA occurs automatically when making a call to a busy station that allows OCA calls to be received.</p> <p>Possible values: Enabled or Disabled (default = Enabled)</p>

Station

Table 5-1 Station Assignment Data for IP, and SIP Telephones (Prog 260) (continued)

30 Originate OCA	<p>The privilege to make OCA calls to other stations.</p> <p>Important!: This privilege must be disabled for all Voice Mail and Auto Attendant ports.</p> <p>Possible values: Enabled or Disabled (default = Enabled)</p>
31 RSTU Supervision	<p>Devices connected to RSTU circuits that do not automatically hang up, and connect to CO lines that do not provide disconnect supervision, should be set with Not Received. This enables the auto disconnect Tandem timer in PROG 104, PBO6 for these types of connections.</p> <p>Possible Values: Received or Not Received (default = Received)</p>
32 Station SpDial Bins	<p>The number of station speed dial bins allocated to this station.</p> <p>Possible values: 0 ~ 100 (maximum=100 per station).</p>
33 Call Forward Dial Tone	<p>When the handset is picked up the user will hear stutter dial tone if Station Call Forward is set on the telephone.</p> <p>Possible values: Enabled or Disabled (default = Enabled)</p>
34 Dialing Digit Restriction	<p>After the Extension has made a call it can be prevented from dialing any subsequent digits.</p> <p>Possible values: Enabled or Disabled (default = Disabled)</p>
35 CO Park & Hold	<p>Enabled: When this station parks a line call, CO or GCO buttons of the parked line that appear on other stations will be on hold. This will allow the other stations to press the CO or GCO button to pickup the parked call.</p> <p>Disabled: When this station parks a line call, CO or GCO buttons of the parked line that appear on other stations will appear busy. This will prevent the other stations to press the CO or GCO button to pickup the parked call.</p> <p>Possible values: Enabled or Disabled (default = Disabled)</p>
36 MW & DND Dial Tone	<p>Enable: When this station goes off hook it will receive stuttered dial tone when it has a message waiting indication. The station will receive a busy tone burst before dial tone when in the DND mode.</p> <p>Disable: This station will receive normal dial tone when it has a message waiting or when it is in the DND mode.</p> <p>Possible values: Enabled or Disabled (default = Enabled)</p>
37 Activate Message Waiting	<p>Enable: This station is allowed to activate station-to-station message waiting on other stations by dialing the other station number plus 7, 8, or 9, or by pressing the Msg key.</p> <p>Disable: This station can not activate station-to-station message waiting on other stations by dialing the station number plus 7, 8, 9, or by pressing the Msg key.</p> <p>This parameter does not apply to Voice Mail ports; they use the special Message Waiting access codes.</p> <p>Possible values: Enabled or Disabled (default = Enabled)</p>

Table 5-1 Station Assignment Data for IP, and SIP Telephones (Prog 260) (continued)

38 Tenant Number	<p>Enter the Tenant number to which this PDN should be assigned.</p> <p>Possible values:1~ 8 (default = 1)</p>
39 Hook-Switch Recall	<p>Enable Recall for Digital Telephones for normal operation.</p> <p>Disable Recall on Standard Telephones that produce hook-switch bounce when they are hung-up. This prevents annoying ring recalls when the user hangs up on a call.</p> <p>Possible values:Enabled or Disabled (default = Enabled)</p>
40 Auto-Campon to PDN	<p>Enable - to allow auto-campon to this PDN when busy and called by a CO line even if the CO line group has auto-campon disabled in Program 304-17.</p> <p>Disable - to not allow auto-campon to this PDN when called by a CO line if the CO line group has auto-campon disabled in Program 304-17.</p> <p>Note</p> <p>Auto-campon will always occur on the PDN if the calling CO line group has auto-campon enabled in Program 304-17 regardless of how this option is set.</p> <p>Auto-campon will be applied or not to PhDNs according to the PhDN owner PDN setting for this option.</p> <p>Possible values:Enabled or Disabled (default = Enabled)</p>
41 LCR PDN Code	<p>Enter the number of digits that determine when to send the LCR PDN code. The PDN code is registered in the LCR Modified Digits Table.</p> <p>Possible values:G711, G729A or None (default = G729A)</p>
42 Network Calling Number	<p>Enter the CLID telephone number that should be sent for this station when making external calls through the Strata Net ISDN network (32 digits max.). When this station makes outgoing calls through the Strata Net network this number will be sent over the Strata Net network to the terminating PSTN connected to the far-end node (providing this is allowed by the PSTN). This number will be displayed as the Caller ID number at the terminating external telephone. This number is not sent to local PSTNs connected to the node from which the call is originated, nor is it sent when making conventional Tie line calls that terminate on a PSTN at a far-end node.</p> <p>Possible values:32 Digits Max.</p>
43 Security Code	<p>Enter the My Phone Manager password for this station. This security code is also the IP Mobility Login password (refer to field 49).</p> <p>Possible values:16 Characters Max</p>
44 My Phone Manager Level	<p>Enter the My Phone Manager user privilege level for this station.</p> <p>Possible values:Normal, Super 1 or Super2 (default = Normal)</p>
45 Speaker OCA	<p>Enable or disable Speaker OCA on an IP telephone. When speaker OCA is assigned to an IP set an additional IP port is assigned to the IP. If there is no available IP port S-OCA cannot be assigned and an eManager error will occur.</p> <p>Possible values:Enabled or Disabled (Default)</p>

Station

Table 5-1 Station Assignment Data for IP, and SIP Telephones (Prog 260) (continued)

<p>49 IP Phone Login Password</p>	<p>Whether or not to apply the Login Password Authentication - Uses the Personal Password (43)</p> <p>Possible values: Enabled or Disabled (Default)</p>
<p>50 Transfer Registration</p>	<p>Whether or not to apply Transfer Registration - Set to Enable to allow IP Mobility for this DN.</p> <p>Possible values: Enabled or Disabled (Default)</p> <p>Note Assign a “Phone Logout” feature key on this DN.</p>
<p>51 Station Connecting Equipment</p>	<p>Enter the PDN equipment number (0000 means auto assignment).</p> <ul style="list-style-type: none"> • IPT1020-SD must be installed on BIPU-M; IPT1020 cannot be installed on LIPU/LIPS, MIPU or GIPx. • SIP phones must be installed on LIPU/LIPS, MIPU or GIPx; SIP phones cannot be installed on BIPU-M • IPT2000 series and IP Softphones can be installed on LIPU/LIPS, MIPU, GIPx or BIPU-M (see Prog 260 for LIPU/LIPS, MIPU or GIPx PDN assignments). MIPU and GIPU require R5.0 software or higher. <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX100: Base, Exp.01 • CIX200: Base 01, Exp.02 • CIX670: Base 01, Exp 02~07. • CIX1200: Base 01, Exp 02~12 <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX100: Base 01, Exp.05~08 • CIX100: ACTU Relay Equipment= Cab 02, Slot 05. • CIX100: ASTU Equipment=010901 and 010902 • CIX200: Base/Exp.01~04 • CIX200: LSLU Equipment=010401 and 010402. • CIX670/1200: Base 01~08 • CIX670/1200: Exp.01~10 <p>CTX28 and CIX40 assignments below are hard coded and cannot be changed.</p> <p>01, 05 – GVMU - 28, GVPH - 40 R1HW, GIPx, MIPU or GCOCIH - 40 R2HW</p> <p>01, 06 – GIPx, MIPU16 or GCOCIH - 40 R1HW, no card - 28, 40 R2HW</p>
<p>52 Simple System SpeedDial</p>	<p>Whether or not to system speed dial supplement is allowed.</p> <p>Possible values: Enabled or Disabled (Default)</p>
<p>53 Analog Station Disconnect Signal</p>	<p>Whether or not Analog Station Disconnect Signal is sent. Refer to “208 Timer” on page 5-25.</p> <p>Possible values: Enabled or Disabled (Default)</p>

Station PDN Selective Copy

This screen gives you the option of selecting either all or some of the parameters to be copied to the destination PDNs.

Select 'Copy To' PDN(s)

Highlight selections and click on Select 'Copy To PDN(s) for copy destination.

"Highlight All"

02 PDN Equipment Number	0000	03 LAN Interface Number	1
01 Type	IPT	Day2	1
05 COS Day1	1	Night	1
06 DRL Day1	1	Day2	1
07 FRL Day1	1	Night	1
09 QPL Day1	1	Day2	1
08 LCR Group	1	Night	1
11 Dialing Progress Tone	Dial Tone	10 Name to Display	SERVER
13 Call Pickup	Permitted	12 System Call Forward	1
15 Display DN	2400	14 Bearer Capability	Audio
17 Emergency Call Group	1	16 CESID	
19 VMID Code	2400	18 Remote CF/DND Password	
21 Travel COS Change	Disable	20 VM MW Center Port	3050
		22 TGAC Override	Disable

<< Back

Using this screen you can do any of the following functions:

- Copy to multiple destination PDNs.
 - Check All to select all the parameters, or select individual/multiple parameter(s) to be copied.
1. Select Station > Station Assignments. Enter the Primary DN.
 2. Click **Selective Copy**. The Selective Copy screen displays.
 3. Check Highlight All to select all the parameters or select individual/multiple parameter(s) to be copied.

Note If you want to copy almost all items and leave out a few, you can check Highlight All and then click on the items that you don't want to copy to deselect them.

4. Click **Select 'Copy To' PDN(s)** to start the copying process. End of Copy is displayed when copy is complete.

Note You can return to the previous page and/or reselect copy to different destination PDNs by clicking **Back**.

PDN Table View

The PDN Table View displays the following parameters set in Program 200/260—Station Equipment Number, Type, Extension/Voice Mail, Primary DN, User Name, PDN VMID, COS, DRL, FRL, LCR Group, System Call Forward Template, Network COS, the quantity of Station Speed Dial bins and Tenant.

To access the extended list

Select Station > Station Assignments and click the **PDN Table View** button. The Extended List spreadsheet displays after it downloads from the CIX. This takes some time depending on the CIX connection speed and database size.

The screen may be kept up and moved around to use as a reference and can be printed. The Extended List spreadsheet can be sorted by all 20 columns and sorting can be toggled between Ascending and Descending order. The entire table can be printed using the **Print** button on the screen.

204 DKT Parameters

Prerequisite Program: 200 [page 5-1](#)

This command is used to set up DKT digital telephone station parameters.

1. Select > Station > Station Assignments.
2. Click on the DKT tab.
3. To modify an existing station, enter its DN number in the Primary DN field or select a DN from the list on the right side of the screen.
4. To create a new DN with custom settings click **Create** in the Basic tab. A dialog box will appear.
 - Select DKT/SLT/IPT_B/SL_VMU if you are creating a Digital Key Telephone, Single-line Telephone or IPT-1020SD.
 - Enter the desired values.
 - Click **OK**.
5. Delete (Basic tab) – Enter a Primary DN or a range of Primary DNs to delete and click **OK**.
6. Change DN (Basic tab) – Enter a DN in the Primary DN field and click **Change DN**. Enter the new DN assignment and click **OK**.
 - Setup the DN by adding values to the remaining fields.
 - **Get Default** sets all values to factory default.
 - Click **Submit**.

FIELD	DESCRIPTION
01 Station Type	<p>Select the Station Type. When set to Attendant the system can support four circuits.</p> <p>Possible values:Extension (default) or Attendant</p>
02 Key Strip Pattern	<p>This option allows you select a pre-defined keystrip pattern and submit it to the digital telephone. It does not display what pre-defined keystrip (if any) has been assigned to the telephone.</p> <p>Use the Key tab screen to view or edit telephone keystrip assignments.</p> <hr/> <p>CAUTION! Submitting a keystrip pattern will overwrite existing keys programmed on a telephone.</p> <hr/> <p>Default key strip patterns for digital telephones. The selected pattern is applied to the 'Key Strip Type' parameter.</p> <p>None – applies PDN to button 01 and blank to all other buttons.</p> <p>Pattern 1 – applies PDN to button 01, plus line buttons and DND.</p> <p>Pattern 2 – applies PDN to button 01, plus line buttons, One-Touch buttons and DND.</p> <p>Pattern 3 – applies PDN to button 01 and blank to all other buttons. (DKT3014/3214 uses only Pattern 1 or None).</p> <p>Possible values:Pattern 1, 2, 3, or None (default)</p>

FIELD	DESCRIPTION
03 Keystrip Button Quantity	<p>Select the number of feature buttons to assign to this station.</p> <p>Note Although the scroll down menu enables you to choose any value from 1~24, valid values are 10, 14, and 20.</p> <p>Possible values: 1, 3, 7, 8, 10, 14, or 20 (default)</p> <p>Applies 1, 3, 10, 14, or 20 button keystrip type to digital telephones: 1 and 3 button keystrips apply to DKT2001, DKT3001/3201 , and DP5008 7 button keystrips apply to DKT3007/32307 and SoftIPT 8 button keystrips apply to IPT2008-SDL 10 button keystrips apply to DKT2010, DKT3001/3201, DP5018, DP5022, DP5122, DP5130, IP5122-SD -SDC and IP5131-SDL.</p> <p>Note To set as or change from DP5130 or IP5131-SDL, refer to Keystrip Type.</p> <p>14 button keystrips apply to the Large LCD DKT3014/3210 20 button keystrips apply to DKT2020, DKT3020/3220, DP5032, DP5132 and IP5132-SD</p>
04 Add-on Modules	<p>Select the number of DADM or LM Add-on-Modules assigned to this station.</p> <p>If the Add-on-Module is an LCD Line Module, LM5110, identify it as such in parameter 40 and/or 41 of this program.</p> <p>Possible values:None (default), 1 unit, or 2 units</p>
05 Tone Ring/Voice Announce	<p>Set PDN to have Tone First or Voice First signaling when called.</p> <p>For each iES32 PDN, set to "Tone First"; if set to Voice First iES32 will not answer.</p> <p>Possible values:Tone or Voice (default)</p>
06 OCA Type	<p>Select the OCA type. This field must be programmed with Auto OCA Originate below.</p> <p>Possible values:Handset (default) or Speaker</p>
09 Handsfree MIC Setting	<p>If you call a station configured for Voice First signaling you can use this parameter to enable the called parties microphone from your DKT.</p> <p>Possible values:Enable or Disable (default = Enable)</p>
10 Handsfree Tone	<p>If you call a DKT configured for Voice First signaling you can use this parameter to send a splash tone to the called party.</p> <p>Possible values:Enable or Disable (default = Enable)</p>
11 Ext. Ring Repeat	<p>Enable repetitive ringing for incoming CO / PBX / Centrex signals. Disabling this parameter defaults to standard CO ringing pattern (1 sec on / 3 sec Off).</p> <p>Possible values:Enable or Disable (default = Disable)</p>

Station

FIELD	DESCRIPTION
13 Off Hook Preference	<p>Select Off Hook Preference.</p> <p>Possible values: Idle, Ringing, Prime, No Preference, Prime and Idle, Prime and Ringing or Ringing and Idle (default)</p> <p>When a digital telephone user goes off hook, presses the Spkr Button or dials a digit while the telephone is idle (Hot Dial Pad), the telephone will select an idle PDN or Line button or answer an incoming call according to the preferences set in this command.</p> <p>This command works in conjunction with the 14 PDN/Line Preference and 15 Ringing Preference programs.</p> <p>The possible values are described as follows:</p> <ul style="list-style-type: none">• Idle – The telephone will select an idle DN or Line button depending on the 14 PDN/Line Preference choice. In either case priority is always the lowest numbered button that is idle. The telephone will not answer ringing calls automatically.• Ringing – The telephone will answer a ringing call (any PDN, secondary DN, PhDN, or any Line type button) by call type or longest ringing button depending on the 15 Ringing Preference choice. The telephone will not automatically select a DN or Line button when going off hook to originate a call.• Primary DN – The telephone will automatically try to select the PDN button, if idle or ringing, no matter what the status is of other buttons on the telephone.• No Preference – The telephone will not select any button when the user goes off hook or presses the Spkr button. This selection will also disable the telephone's Hot Dial Pad feature.• Primary DN and Idle – The telephone will automatically try to select the PDN button if idle or ringing. If the PDN is busy the telephone will select an idle Line button (14 PDN/Line Preference - Line Preference) or another idle DN button (14 PDN/Line Preference - PDN Preference).• Primary DN and Ringing – The telephone will automatically try to select the PDN button if idle or ringing. If the PDN is busy the telephone will select a ringing Line button (14 PDN/Line Preference - Line Preference) or a ringing DN button (14 PDN/Line Preference - PDN Preference).• Ringing and Idle – The telephone will always answer any ringing call according to 15 Ringing Preference. If a call is not ringing it will select an idle Line button (14 PDN or Line Preference - Line Preference) or idle DN button (14 PDN or Line Preference - PDN Preference).

FIELD	DESCRIPTION
14 PDN/Line Preference	<p>Offhook preference button type.</p> <p>Possible values:CO Key or DN Key (default)</p> <ul style="list-style-type: none"> • CO Line buttons - Line buttons (any type CO, Pooled or Group CO line button) have priority over DN buttons with 13 Off Hook Preference choices. The lowest numbered line button on the telephone has priority over other line buttons for idle selection. • Primary DN button - DN buttons (any type PDN, Secondary DN or PhDN button) have priority over Line buttons with 13 Off Hook Preference choices. The PDN button has first priority for idle selection. The lowest numbered DN button on the telephone has priority over other DN buttons for idle selection if the PDN button is busy. <p>Note Off hook ringing selections are also based on 15 Ringing Preference choices.</p>
15 Ringing Preference	<p>Ringing call answer preference.</p> <p>Possible values:Longest or Call Type (default)</p> <ul style="list-style-type: none"> • Longest Ringing - any call type - Calls are answered in order of the longest ringing line no matter what type of call (FIFO). • Longest Ringing - by call type priority - Call Type priority is applied to the longest ringing button. <p>Call Type Priorities are fixed in software as shown below:</p> <ul style="list-style-type: none"> • Emergency Calls • Hands Free Calls (after it is switched to ringing by the caller) • ACD calls • Recalls (Hold recall, Automatic call back, ABR, etc.) • External Calls (DID, DIT DISA line calls etc.) • Internal Calls (station, Attendant, Tie line, door phone, etc.)
16 Text Msg Display	<p>Select whether to display an LCD text message. Immediate displays the message. Not immediate does not display the message.</p> <p>Possible values:Immediate (default) or Not Immediate</p>
17 Call History Memory	<p>Enter the number of calls to be stored in memory for this station.</p> <p>Possible values:0~100 (def = 0) Increments of 5 (0, 5, 10, 15, 20, ... 100)</p> <p>Note Up to the system max: CIX40, 100 = 660, CIX200, 670 Basic, 1200 Basic = 1000, 670 Exp = 2000, CIX1200 Exp = 3000</p>



FIELD	DESCRIPTION
19 Continuous DTMF	<p>Enable / Disable Continuous DTMF for DKT2000 and DTK3000 series telephones.</p> <p>Enabled allows the telephone to send DTMF tones to the far end continuously as long as the key on the dial pad is held down.</p> <p>Note</p> <ul style="list-style-type: none"> For each iES32 PDN, set to 'Not Continuous' - if set to 'Continuous', outdial notification to pagers and calls to AMIS nodes will not function properly. DKT1000 series telephones do not support continuous DTMF. DKT1000 series telephones must be set to 'Not Continuous' or they will misdial. <p>Possible values:Continuous (default) or Not Continuous</p>
20 Display Language	<p>Select the LCD Display Language.</p> <p>Possible values:English (default), British English, French, Spanish</p> <p>Note The display language must also be set at IPT2008-SDL and IP5131-SDL stations using access code #495.</p>
21 Adapter	<p>Select the Adapter Type (Desktop OAI or Attendant Console).</p> <ul style="list-style-type: none"> BPCI – for USB interface BATI – for PC Attendant Console Interface <p>Possible values:None (default), BPCI or BATI</p>
22 Blind Transfer	<p>Set Blind Transfer Action (Attendant Type Only).</p> <p>Possible values:Leave or Separate (default)</p>
23 Mailbox Selection	<p>Select the method to enter the destination Mailbox for Call Recording. If set to Auto the CIX uses the VMID of the station initiating the record function.</p> <p>Note</p> <ul style="list-style-type: none"> The DN assigned as the MSG center in PROG 200 is used to call the VM port or Hunt group (PROG 200 FK 22). When set to Auto the VMID of the station initiating the record function is sent to Stratagy ES as the destination mailbox. When set to Manual Input the user may enter any valid mailbox followed by the “#” sign. If the user presses “#” without additional data the CIX will send the VMID of the originating station. <p>Possible values:Auto or Manual (default)</p>
24 MIC Init. Value	<p>Turn on the microphone automatically when making a speakerphone call.</p> <p>Note The microphone must be enabled.</p> <p>Possible values:On (default) or Off</p>
25 Microphone	<p>Enable microphone.</p> <p>Possible values:Enable or Disable (default = Enable)</p>

FIELD	DESCRIPTION
26 Speaker Mode Tones	<p>Enable telephone to receive Call Waiting (Camp-on) and Ring Over Busy (ROB) Tone while on a speakerphone call.</p> <p>Possible values: Yes (default) or No</p>
27 Call Waiting Tones	<p>Set ROB to ring two times or continuously.</p> <p>Possible values: Two Cycles or Continuous (default)</p> <p>Note See PRG200, 26 to enable ROB to be sent to individual telephones.</p>
28 Attd Overflow Dest.	<p>Select overflow destination for attendant.</p> <p>Possible values: Up to 32 ASCII characters (default = none)</p>
29 Trunk Test & Verify	<p>Allow Trunk Tests and Verification.</p> <p>Possible values: Yes or No (default)</p>
30 Auto Line Hold	<p>Enable Automatic Line Hold. This parameter allows a station to “line hop” from one call to another automatically by placing the first call on hold.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
31 Call Progress Dependency	<p>Allows the telephone to be set to ring or not ring when busy on a call. If a telephone has multiple DN's (PDN + PhDNs) set this parameter to the Line Mode.</p> <p>Line Mode: Calls will ring the telephone when the user is talking on a line or DN button if the telephone has multiple DN or line buttons in a hunt configuration. If Call Forward Busy/No Answer is set, the telephone will Ring No Answer, and then forward when a call is delivered to the telephone while the user is talking on a DN or CO line button.</p> <p>Terminal Mode: Callers will receive busy tone when any DN or CO line button on the telephone is in use. If Call Forward Busy/No Answer is set on the telephone, a call to the telephone will forward immediately when a call is delivered while the user is talking on any DN or CO line button.</p> <p>Possible values: Line Mode (default) or Terminal Mode</p>
32 Programming Mode	<p>Enable: Allows the telephone to enter the Programming Mode.</p> <p>Disable: Restricts the telephone from entering the Programming Mode.</p> <p>Possible values: Enable or Disable (default = Enable)</p>
33 Stop Sending LCD Data	<p>Turn this parameter On to stop sending LCD information to this port. This must be turned on for Stratagy iES32 voice assistant ports.</p> <p>Possible values: On or Off (default = Off)</p>
34 Administrator Phone	<p>Enable to allow this telephone to function as an Administrator telephone.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
35 Pool Line Flash	<p>Enable this feature if pooled line buttons should only flash when they ring this telephone. If disabled, pooled line buttons will flash on this telephone when the pooled line is ringing any telephone - even if not ringing this telephone.</p> <p>Possible values: Enable or Disable (default = Enable)</p>

Station

FIELD	DESCRIPTION
36 Exclusive Hold	<p>Enable: If the user presses the Hold button twice in succession the telephone places the current call on Exclusive Hold.</p> <p>Disable: The telephone cannot place calls on Exclusive Hold.</p> <p>Possible values: Enable or Disable (default = Enable)</p>
37 Dial Directory - Off Hook	<p>Enable: Allows access to the telephone Dial Directory by going off-hook, pressing the Spkr button or pressing the first softkey on the left side of the LCD.</p> <p>Disable: Denies access to the telephone Dial Directory by going off-hook or pressing the Spkr button. User must press the first softkey on the left side of the LCD to access the Directory Dial feature.</p> <p>Note This option only applies to 7, 10, and 20 button telephones with small LCDs.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
38 Dial Directory - Make Call	<p>Enable: Allows user to originate a call by going off-hook, pressing the Spkr button or pressing the CALL softkey after finding a name using the small LCD telephone Dial Directory feature.</p> <p>Disable: User must press the CALL softkey to originate a call using the small LCD telephone Directory Dial feature. After finding a name, nothing will happen when going off-hook or pressing the Spkr button.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
39 LARGE LCD PHONE	<p>Select DP5130/IP5131 if this is a DP5130-SDL/IP5131-SDL or DP5130-FSDL large LCD telephone with programmable LCD keys.</p> <p>Note If this is a DP5130/IP5131 type telephone, 10 buttons must be selected in parameter 03 of this program.</p> <p>Select NOT DP5130/IP5131 for all other telephone types.</p>
40 ADM1 - LCD KEYSTRIP	<p>Select LM5110 if Add-on-Module 1 is a LCD Line Module with programmable LCD keys.</p> <p>Select NOT LM5110 for all other KM or DDADM types</p> <p>Possible values: 1: Not LM5110 (Default) 2: LM5110</p>
41 ADM2 - LCD KEYSTRIP	<p>Set this value to LM5110 if the add-on module 2 is an LCD line module with programmable LCD keys.</p> <p>Possible values: 1: Not LM5110 (Default) 2: LM5110</p>
To Remove an LM5110 Add-on Module	<p>To remove an LM module (ADM 1 or ADM2)</p> <ol style="list-style-type: none"> 1. Change FK 40 for ADM1, change FK 41 for ADM 2 to Not LM5110 - then click on Submit. 2. Change FK 4 to One or None as appropriate. - then click on Submit.

Feature Button Patterns

The following tables show the various feature button patterns available for **field 02** above.

Table 5-3 20 Button (when field 03 value is 20)

	PATTERN1	PATTERN2	PATTERN3
FB01	Primary DN	Primary DN	Primary DN
FB02	CO 1	CO 1	No Data
FB03	CO 2	CO 2	No Data
FB04	CO 3	CO 3	No Data
FB05	CO 4	CO 4	No Data
FB06	CO 5	CO 5	No Data
FB07	CO 6	CO 6	No Data
FB08	CO 7	CO 7	No Data
FB09	CO 8	CO 8	No Data
FB10	CO 9	CO 9	No Data
FB11	CO 10	CO 10	No Data
FB12	CO 11	CO 11	No Data
FB13	CO 12	CO 12	No Data
FB14	CO 13	Single Touch Button	No Data
FB15	CO 14	Single Touch Button	No Data
FB16	CO 15	Single Touch Button	No Data
FB17	CO 16	Single Touch Button	No Data
FB18	CO 17	Single Touch Button	No Data
FB19	CO 18	Single Touch Button	No Data
FB20	Do Not Disturb	Do Not Disturb	No Data

Table 5-4 10 Button (when field 03 value is 10)

	PATTERN1	PATTERN2	PATTERN3
FB01	Primary DN	Primary DN	Primary DN
FB02	CO 1	CO 1	No Data
FB03	CO 2	CO 2	No Data
FB04	CO 3	CO 3	No Data
FB05	CO 4	CO 4	No Data
FB06	CO 5	Single Touch Button	No Data
FB07	CO 6	Single Touch Button	No Data
FB08	CO 7	Single Touch Button	No Data
FB09	CO 8	Single Touch Button	No Data
FB10	Do Not Disturb	Do Not Disturb	No Data

Table 5-5 14 Button (when field 03 value is 14)

	PATTERN1	PATTERN2	PATTERN3
FB01	Primary DN	Primary DN	Primary DN
FB02	CO 1	No Data	No Data
FB03	CO 2	No Data	No Data

Table 5-5 14 Button (when field 03 value is 14) (continued)

	PATTERN1	PATTERN2	PATTERN3
FB04	CO 3	No Data	No Data
FB05	CO 4	No Data	No Data
FB06	CO 5	No Data	No Data
FB07	No Data	No Data	No Data
FB08	CO 7	No Data	No Data
FB09	CO 8	No Data	No Data
FB10	CO 9	No Data	No Data
FB11	CO 10	No Data	No Data
FB12	CO 11	No Data	No Data
FB13	Do Not Disturb	No Data	No Data
FB14	No Data	No Data	No Data

214 DSS Console Assignment

Prerequisite Program: 200 [page 5-1](#)

This assignment allows up to eight Direct Station Selection (DSS) Consoles to be assigned to a station. The assignment is referenced to the stations's Primary DN.

1. Select > Station > Station Assignments.
2. Click on the DSS tab.
3. Enter a DN number in the Primary DN field or click the list on the right side of the screen
4. Enter the Equipment number in which the DSS(s) is installed.
5. **Get Default** will set all data to the factory defaults.
6. Click **Submit**.

FIELD	DESCRIPTION
Prime DN	Enter the PDN of the station that is to be associated with the DSS console(s). Possible values: Any string up to 5 digits (default = no value).
01~08 DSS Equipment No. 1~8	<p>Enter the DSS equipment number.</p> <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX100: Base, Exp.01 • CIX200: Base 01, Exp.02 • CIX670: Base 01, Exp 02~07. • CIX1200: Base 01, Exp 02~12 <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX100: Base 01, Exp.05~08 • CIX100: ACTU Relay Equipment = Cab 02, Slot 05. • CIX100: ASTU Equipment=010901 and 010902 • CIX200: Base/Exp. 01~04 • CIX200: LSLU Equipment=010401 and 010402. • CIX670/1200: Base 01~08 • CIX670/1200: Exp. 01~10 <p>CTX28 and CIX40 assignments below are hard coded and cannot be changed.</p> <p>01, 01 - 8 digital telephones on motherboard - 28, 40 R1HW and R2HW 01, 05 – GVMU - 28, GVPH - 40 R1HW, GIPx, MIPU or GCOCIH - 40 R2HW 01, 06 – GIPx, MIPU16 or GCOCIH - 40 R1HW, no card - 28, 40 R2HW 01, 07 - 8 digital telephones on GCDU - 28, 40 R1HW and R2HW</p> <p>Example: If the DSS console should be connected to a BDKU in cabinet 5, slot 2, circuit 3; enter 050203.</p> <p>Note If a PDN is assigned to the DSS equipment number, it must be deleted using PRG201 before attempting to assign the DSS console.</p>



205 / 213 / 215 Key

Program Number(s): 205, 213, and 215

Prerequisite Program: 200 [page 5-1](#) and 204 [page 5-10](#)

The Feature Button assignments enable each button on the telephone to be addressed and coded to represent a function or feature to be performed. Some feature buttons require additional parameters to completely define the key (e.g., a Phantom DN needs a directory number, ringing assignment, and the tone pitch when ringing occurs).

1. Select > Station > Station Assignments.
2. Click on the Key tab.

Notes

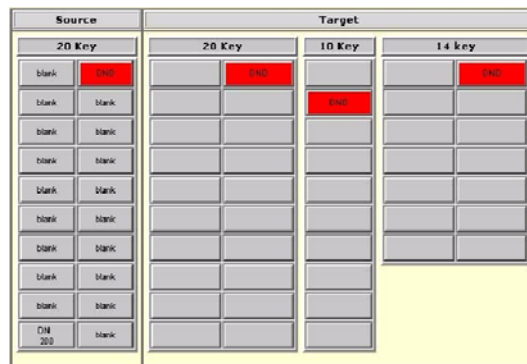
- To Program DSS buttons, Program 214 should be completed.
 - To program ADM buttons (ADM 1 or ADM 2), field 04 (Add on Modules) in Program 204 must be set to One or Two.
3. Enter one of the following in the Primary DN field:
 - Primary DN to program DKT FBs.
 - Primary DN plus an ADM number to Program ADM FBs.
 - Primary DN plus **DSS Key Assignment** button to program DSS FBs or click one of the following buttons:
 - **PDN Table View** – view a detailed list of programmed DNs.
 - **Copy** – After entering the source DN in the Primary DN field, click **Copy** and designate which FB buttons to copy (click the DKT Phone header to select all). Enter the destination DN and click **OK** (range is permitted).
 - **Cross Copy** – This button enables you to copy specific keys from a station's keypad to desired keys of other station keypads.
 4. Click on the FB to program (the button turns from yellow to red).
 5. Click the desired option from the blue parameter buttons on the right.
 - Directory No – Assign a Primary DN key, Secondary/Phantom DN, Phantom DN Message Waiting, or DSS key to this FB. See "[Directory Number Sub-parameters](#)" on [page 5-23](#) for more details.
 - CO Lines – Assign FB as a CO, GCO or a Pooled Line. See "[CO Lines Sub-parameters](#)" on [page 5-23](#) for more details.
 - Features – Assign ABR, ACB, DND, Short Flash, Long Flash, Privacy, Privacy Release, BGM Key, Program Access, Account Code, Application Starting, Split Key, or System Alarm feature to this FB.
 - Call Control – Activate Speed Dial, Release Button, Release/Answer, Cancel, Source Party, Destination Party, CLID or Night Transfer from this FB.
 - Call Forward – Set Call Forwarding assignments for this FB. Forward All Calls, Forward Busy, Forward No Answer, Forward Busy No Answer, Forward Ext/All Call, Forward Ext/Busy, Forward Ext/No Answer and Forward Ext/Busy No Answer are available selections.
 - Park Page – Assign Call Park Orbit, All Paging, Group Paging, All Emergency Paging, Individual Emergency Paging and Paging Answer Feature access to this FB.
 - Call Pickup – Assign FB to a Pickup-Group, Pickup-Directed Terminal, Pickup-Directed Group, Pickup-Directed DN, Pickup-Any External, Pickup-CO Retrieve, Pickup-Local Retrieve, Pickup-Remote, Pickup-Directed DN Retrieve and Pickup-On Hold and Incoming.
 - Door Lock – Enable FB to unlock Door Lock.
 - Voice Mail – Enable FB to Record or Pause/Resume Voice Mail.

- Attendant – Assign Out Dial, Attendant Answer, Overflow, Position Busy, Trunk Test, Attendant Loop or Supervised Loop Key Attendant features to this FB.
 - ACD – Assign Log In/Out, Available/Unavailable, Work Unit, ACD Help, ACD Pickup, End WrapUp, Join ACD Call, Monitor ACD Call, Start/End Shift, Display Status, or UCD Agent Login/Out features to this FB.
 - One Touch – Assign FB as a One Touch button. See "Setting the One Touch Button" on page 5-21.
 - Split – Assign FB to Split the connected party and the conference master from the conference (for private call). (Join button is used to reconnect both parties to the conference.) The Split button should *not* be assigned to a DKT2304-CT cordless telephone.
 - Blank – Clear FB assignment.
6. Click on one feature in the sub-parameter dialog box. If no other settings are required, the FB displays an abbreviation for the selected feature or if you select Directory No, CO Lines or Door Lock parameters, additional fields are required. See the tables that follow for more details.
 7. Follow the directions in each pop-up dialog box. To modify an existing feature button double-click the feature button and make the change in the appropriate dialog box that displays.
 8. Click **Submit**.

Cross Copy

Use the following steps to cross copy keys from one station to the keys of another station's keypad:

1. From the Key Page, enter the Prime DN.
2. Click **Submit**.
3. Click the **Cross Copy** button. The Source and Target Copy screen displays (shown right). Enter the "Copy To" PDNs or click **Select** to select the target PDN.
4. From the Source DKT, select key to be copied.
5. Click the **Copy Now** button.
6. Click **Done**. Target DKT with the copied key displays.
7. Verify the key copied.



Setting the One Touch Button

Follow the step above 1–8 above to assign an FB as a One Touch button. Then complete the following steps:

1. Double-click the key assigned as One Touch.
2. Enter the One Touch data, then click **OK**.

Example 1: Setting up a One Touch button to transfer to Voice Mail.

Select the Cnf/Trn from the white box on the right, CNF displays in the One Touch Data field. Then type #407 after CNF displays in the One Touch Data box. It adds Cnf/Trn #407 in the One Touch Data. Click **OK**. Then click **Submit**.

Example 2: To originate a call from the PDN, select the FK as 01 if the PDN is on the first key then add the telephone number next to FK01 in the One Touch Data box.

Cancel clears the changes and takes you back to the previous page.

DP5000 and IP5000 series Large Screen telephones can offer 10 more flexible keys. In addition to the added 10 keys, a dedicated Call History button gives access to the Caller ID history of incoming calls. Also, dial by name directory enables calling by pressing the button associated with the name of the person (R5.2 MT021 software or higher on Release 4.0 processors). On Strata CIX systems running this version of software the

DP5310-SDL, DP5130-FSDL and IP5131-SDL large screen telephones are provided with the following enhancements:

- Flexible Key capacity - 10 Keys to 20 Keys using the Shift key.
- Dedicated Call History Button using the History (Hist) key (DP5130-SDL & DP5130-FSDL only).
- Enhanced Dial-By-Name Directory operation.

Shift Key and History Key

Two unused keys on the telephones, the bottom left and right keys become functional buttons. The "Shift" key toggles the LCD screen between flexible keys 1~10 and flexible keys 11~20; the "Hist" key accesses the Caller ID history. These buttons have no function when the telephone is connected to a CIX system running on software released prior to R5.2 MT021.

Important! Important Large Screen Telephone 20-Key Programming restrictions.

1. All call buttons should be either on keys 1~10 **or** 11~20. Mixing call buttons on both screens (keys 1~10 **and** 11~20) will cause user confusion. Call buttons include Directory Number buttons, Pilot Number buttons, CO line, Pooled line, GCO line buttons, etc.
2. DP5000-series Large Screen Telephones requiring Feature Flex and/or ACD application buttons cannot be set up in the 20-key configuration. Application buttons such as ACD Agent, ACD Supervisor, Call Return, Call Monitor etc. are not currently compatible with Large screen 5000 series telephones in the 20-Key configuration they only function properly on the large screen 10-key configuration.

To program the 20 flexible keys using Network eManager:

1. In Prog 204 set 03 - Keystrip Button Quantity to 20 and 39 - Large LCD Phone to 20
2. In Stations > Station Assignment > Key set flexible buttons

Shift and Hist Key Operation

Shift Key Operation

At any time, press the Shift key to alternate between the keys 1~10 and keys 11~20.

Shift to Answer calls

If the LCD screen is set to view keys 11~20 and a call comes in on key 1 the phone will ring and Caller ID information will display on the top of the screen - press the Shift key to view keys 1~10 and answer the call.

Hist Key Operation

At any time while your phone is idle press the Hist key to view and dial Caller ID numbers stored in the station history log. Press the Hist key when the phone is idle. Use the soft keys to view and place calls. **Note:** The phone must have Caller ID history programmed.

Directory Number Sub-parameters

FIELD	DESCRIPTION
Primary DN	<ol style="list-style-type: none"> Select Ringing Assignment for Day1, Day2 and Night. Possible values: No Ring, Immediate Ring, Delayed Ring1 and Delayed Ring2. Select Tone Pitch. Possible values: 1~4 (default = 1)
Secondary/Phantom DN	<ol style="list-style-type: none"> Enter DN Number. Possible values: Any string up to 5 digits Select Ringing Assignment for Day1, Day2 and Night. Possible values: No Ring, Immediate Ring, Delayed Ring1 and Delayed Ring2. Select Tone Pitch. Possible values: 1~4 (default = 1)
Phantom DN Message Warning	<p>Enter Phantom DN No. Possible values: Any string up to 5 digits</p>
DSS Key	<p>Enter DSS Primary DN No. Possible values: Any string up to 5 digits</p>

CO Lines Sub-parameters

FIELD	DESCRIPTION
CO	<ol style="list-style-type: none"> Select CO Line #. Possible values: 1~56 (CIX200), 1~64 (CIX100), 1~96 (CIX670 Basic, CIX1200 Basic), 1~264 (CIX670 Exp, CIX 1200 Exp A), 1~440 (CIX1200 Exp B), (default = no value) Enter Owner DN. Possible values: Any string up to 5 digits Select Ringing Assignment for Day1, Day2 and Night. Possible values: No Ring, Immediate Ring, Delayed Ring1 and Delayed Ring2. Select Tone Pitch. Possible values: 1~4 (default = 1)

Station

FIELD	DESCRIPTION
GCO	<ol style="list-style-type: none"> Select GCO No. Possible values: 1~20 (CIX200, CIX670 Basic, CIX1200 Basic), 1~32 (CIX100), 1~128 (CIX670 Exp, CIX1200 Exp A), 1~220 (CIX1200 Exp B), (default = no value) Select Index. Possible values: 1~128 (CIX200, CIX670), 1~32 (CIX100), 1~220 (CIX1200) (default = no value) Enter Owner DN. Possible values: Any string up to 5 digits Select Ringing Assignment for Day1, Day2 and Night. Possible values: No Ring, Immediate Ring, Delayed Ring1 and Delayed Ring2. Select Tone Pitch. 1~4 (default = 1)
Pooled Line Key	<ol style="list-style-type: none"> Select Pool Line No. Possible values: 1~32 (CIX100), 1~50 (CIX200, 670 Basic, 1200 Basic), 1~28 (CIX670 Exp, 1200 Exp A) 1~220 (CIX1200 Exp B) (default = no value) Select Ringing Assignment for Day1, Day2 and Night. Possible values: No Ring, Immediate Ring, Delayed Ring1 and Delayed Ring2. Select Tone Pitch. 1~4 (default = 1)

Door Lock Sub-parameters

FIELD	DESCRIPTION
Door Unlock	Select Door Lock No. Possible values: 1~10 (default = 1)

208 Timer

Program Number(s): 208

Prerequisite Program: 200 [page 5-1](#)

Assigns timing parameters to Primary DNs.

1. Select: Station > Station Assignments.
2. Click on the Timer tab.
3. Enter a DN in the Primary DN field or select an existing record by clicking one of the following buttons:
 - **List** – select from the list of programmed DKTs on the right side of the screen.
 - **Copy** – Enter a DN in the Primary DN field and click **Copy**. Enter a new DN to assign existing Station Timer settings.
4. Select the desired values. See descriptions below.
5. **Get Default** will set all data to the factory defaults.
6. Click **Submit**

FIELD	DESCRIPTION
Prime DN	Enter the Prime DN. Possible values: Up to 5 digits (default = no value)
01 Automatic Busy Redial Retry Count	Enter the number of retry attempts made by ABR when dialing a busy telephone number. Possible values: 5~20 (default = 15)
02 Automatic Busy Redial Retry Interval Timer	Select the amount of time (in seconds) ABR waits between dialing attempts. Possible values: 30~180 (default = 60)
03 Automatic Busy Redial Recall Timer	Select the number of seconds ABR will call back the station after receiving ring back tone from the dialed number. Possible values: 5~60 (default = 20)
04 Hold Recall Timer	Select the number of seconds before a held call recalls. Possible values: 0~255 (default = 60)
05 First Interdigit Timer	Enter the First Interdigit Timer in seconds. Possible values: 1~180 (default = 15)
06 Second Interdigit Timer	Enter the Second Interdigit Timer in seconds. Possible values: 1~180 (default = 5)
07 Ring Xfer No Answer Timer	Enter the Ring Xfer No Answer Timer in seconds. Possible values: 1~600 (default = 32)
08 SLT MW Lamp Signal Timer	The time in seconds to wait before sending the Message Waiting Lamp signal to a standard telephone. Note Some SLTs do not support MW lamps Possible values: 1(Default) - 10; 0 = MW signal not sent
09 Analog Station Disconnect Signal Timer	The time in seconds, after the the disconnect until the disconnect signal is sent. Possible values: 1~120 (default = 1)

Station

216 Emergency Ringdown Assignment

Program Number(s): 216

Prerequisite Program: 200 [page 5-1](#)

Assigns Emergency Ring Down parameters to Primary DNs.

1. Select > Station > Station Assignments.
2. Click on the RingDown tab.
3. Enter a DN number in the Primary DN field or select an existing record by clicking one of the following buttons:
 - **List** – select from the list on the right side of the screen.
 - **Copy** – Enter a DN in the Primary DN field and click **Copy**. Enter a new DN to assign existing Station Timer settings.
4. Select the desired values. See descriptions below.
5. **Get Default** will set all data to the factory defaults
6. Click **Submit**

FIELD	DESCRIPTION
01 Emergency Ringdown	Enable an Emergency Ringdown Number. Possible values: Enable or Disable (default = Disable)
02 Emergency Ringdown Timer	Enter the length of off-hook time that will cause a DN to originate an Emergency. Possible values: 0~60 (default = 0) Note For DKT, IP, and IPT stations, do not set the time to more than 30 seconds.
03 Emergency Ringdown Destination	Enter the destination DN for the Emergency Ringdown. Possible values: Up to 5 digits (default = no value)

206 Phantom DN

Prerequisite Program: 200 [page 5-1](#)

This command assigns Phantom DN parameters.

1. Select > Station > Phantom DN.
2. Enter a Phantom DN number or click one of the following buttons:
 - **List** – view a summary list of programmed Phantom DNs.
 - **Copy** – Enter the Phantom DN to copy data from, then click **Copy** and designate a Phantom DN to copy the data to. Click **OK**.
 - **Get Default** - Sets all data to factory defaults.
3. Click **Submit**.

FIELD	DESCRIPTION
Phantom DN	Enter Phantom DN. Possible values:Up to 5 ASCII characters (default = no value)
01 Owner PDN	Set Phantom DN's Owner Station. Possible values:Up to 5 ASCII characters (default = no value)
02 Tone/Voice First	Choose Tone First or Voice First signaling. Possible values:Tone First (default) or Voice First
04 Display DN	Enter the number displayed on the calling telephone that rings this Phantom DN number. Possible values:Up to 5 ASCII characters (default = no value) This number is overridden by the number in Program 209, field 04 (if assigned) and if the Phantom DN is in a hunt group. When calling from this Phantom DN the number displayed on the called telephone appears in order of priority as follows: This number in Program 209, field 04 (if assigned) and if the PhDN is in a hunt group. ... or this number in Program 200, field 15 (if assigned). ... or the calling telephone's PDN.
05 System Call Forward	Select the System Call Forward value. Possible values:0~4 (CIX100), 0~10 (CIX200, 670 Basic, 1200 Basic), 0~32 (CIX 670 Exp.), 0~48 (CIX1200 Exp), (default = 0)
06 VM ID Code	Enter the voice mailbox number that should answer calls when this PhDN calls voice mail; or when this PhDN is called and then forwards to voice mail (this number is prefixed by codes in Program 579, field 11~field 16). Possible values:Digits 0~9, * and #, up to 10 characters (default = no value). This VMID code is sent to the voice mail device in SMDI packets or DTMF tones on direct calls to voice mail from the PhDN and on calls to the PhDN that forward to voice mail (see Program 580 for SMDI or DTMF choice). Note Do not enter a VMID code in this field if this PhDN is associated with a PDN in a multiple DN hunt group (Program 209, field 06). The associated PDN's VMID code (Program 200, field 19) will be sent to voice mail.

Station

FIELD	DESCRIPTION
09 Message Center	Enter the Message Waiting Center DN, VM Pilot Number or lowest member of VM hunt group. Up to 7 ASCII characters (default = no value)
10 LCD Name	Enter the name that should be displayed on telephone LCDs for this PhDN. Possible values:Up to 8 ASCII characters (default = no value)
11 Display Name	Select radio button for user name to be included in the list display of Large LCD (Directory Assistance). Possible values:Enable or Disable (default = Disable)

209 Hunt Group

Prerequisite Program: 200 [page 5-1](#)

This command assigns Station Hunting Group data.

1. Select > Station > Hunt Group.
2. Click on the Group tab.
3. Enter a Group Number for an existing record or click one of the following buttons:
 - **List** - View list of programmed hunt groups.
 - **Create** – Assign a new hunt group with custom settings.
 - **Get Default** - Sets all data to factory defaults.
4. Click **Submit**.

FIELD	DESCRIPTION
Hunt Group Number	<p>Hunt Group Number</p> <p>Possible values: 1~90 (CTX28, CIX40 CTX100), 1~200 (CTX670 Basic & CIX200), 1~640 (CTX670 Exp) 1~200 (CTX1200 Basic HCTU only), 1~1100 (CTX670 Exp HEXAU or HEXBU) (default = no value)</p>
01 Hunt Method	<p>Select Hunt Method</p> <p>Possible values: Distributed (for voice mail and UCD hunt groups - MAS Voice Mail Ports connected to a GIPx, MIPU, LIPU or LIPS interface that should be set as IP Voice Mail, or Circular (for Multiple DN hunt groups) (default)</p>
02 Pilot Number	<p>Enter Pilot Directory Number. This is the number that is dialed to call the hunt group.</p> <p>Possible values: Up to 5 ASCII characters (default = no value) any type of hunt group can have a pilot number.</p> <p>Note Any type of hunt group can have a pilot number. Distributed hunt groups must have a pilot number. Voice mail hunt groups should be distributed with a Pilot Number. Multiple DN hunt groups should be circular with no Pilot Number.</p>
04 Number to Display	<p>Enter the number that is displayed when called by, or when calling any member of the hunt group.</p> <p>Possible values: Up to 5 ASCII characters (default = no value)</p> <p>Note This number should be the DH Group Pilot number for Voice Mail hunt groups. This number could be the PDN of a Multiple DN hunt group, in which case the number would override the number assigned in Program 200, field 15 for PDNs and Program 206, field 04 for Phantom DN's.</p>
05 Pilot No. SCFwd	<p>Allows you to assign a system call forward pattern to the Pilot Number of a hunt group.</p> <p>Possible values: 0~4 (CIX/CTX100 & CTX28 & CIX40), 0~10 (CIX/CTX670 & CIX200 Basic), 0~32 (CIX/CTX670 Exp), 0~10 (CIX200 Basic HCTU only), 0~48 (CIX1200 Exp. HEXAU or HEXBU) (default = 0)</p>

Station

FIELD	DESCRIPTION
06 Multiple DN Hunt	<p>Enable if hunt group is created for multiple DN operation. Multiple DN hunt groups should be circular with no pilot number. Set to disable for UCD group.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
07 DHG Auto CampOn	<p>Whether to execute Automatic Camp On to the distributed hunt group or not.</p> <p>Possible values: Enable or Disable (default = Disable)</p> <p>Should be applied to VM Distributed hunt groups so callers automatically camp on to voice mail when all VM ports are busy. Does not apply to circular or serial hunt groups.</p> <p>Set to Enable for UCD group</p>
08 UCD Enable/Disable	<p>To turn on or off the Universal Call Distribution feature.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
09 UCD MOH Source	<p>Select which MOH interface will be connected to the music source of the Universal Call Distribution. This source will be played to calls in the UCD Queue.</p> <p>Possible values: No MOH Source, BIOU-1-J1~J3, processor MOH Jack, BIOU-2-J1~J3, XSTU-1~8</p> <p>Note Maximum 128 calls in queue at one time.</p> <p>The number of calls waiting in the queue times the number of agents in the system must be less than 128. For example, two UCD groups - group #1 has 10 agents and group #2 has 15 agents. Group #1 can have only 3 calls queued (10x3 = 30) when group #2 already has 6 calls in the queue (15x6 = 90). A total of 120.</p>
10 UCD Overflow Timer	<p>Select the amount of time that UCD calls should remain in the UCD Queue before they overflow.</p> <p>Possible values: 1 to 3600 seconds in 1 second intervals (default = 300 seconds)</p> <p>Note The overflow destination is the destination assigned to the UCD Pilot System Call Forward-No Answer Timer.</p>
11 UCD RBT Timer	<p>If no UCD agents are available when a call is routed to the UCD group the caller will hear Ring Back Tone (RBT) for the length of time set for this timer. After this time expires the caller will be routed from RBT to the UCD MOH interface.</p> <p>Possible values: 0~30</p> <p>Default = 10</p>

218 Station Hunt Assignments

Prerequisite Program: 209 [page 5-29](#)

This program assigns station DNs to hunt groups using Program 209 and assigns the rotation order in which DNs are hunted.

1. Select Station > Hunt Group.
2. Click on the Member tab.
3. Enter a Member Number for an existing record or click one of the following buttons:
 - **List** – Select from the list of programmed hunt groups on the right side of the screen.
 - **Insert** – Assign a new station DN to the hunt group number entered above.
 - **Append** – Assign a new DN as the last DN in a hunt group’s hunt order.
 - **Modify** – Highlight an existing DN in the hunt order and change the station DN assignment.
 - **Delete** – Delete station DN assignment to Hunt Order number.
 - **Get Default** - Sets all data to factory defaults.
4. Click **Submit**.

FIELD	DESCRIPTION
Hunt Group Number	Enter an existing hunt group number or use the List, Add, Append, Modify, or Delete buttons as described above. Possible values: 0~18 (CTX28), 0~32 (CIX40), 0~90 (CIX/CTX100), 0~200 (CIX/CTX670 & CIX200 Basic), 0~640 (CIX/CTX670 Exp), 0~200 (CIX1200 Basic HCTU only), Possible values: 0~1100 (CIX1200 Exp. HEXAU or HEXBU) (default = no value)
Hunt Order	This field assigns a station DN position within a hunt group’s hunt order. The hunt order is selected automatically by Strata eManager. Programmers should assign the last station in the hunt order first and assign the first station in the hunt order last. Possible values: 1~72 (CIX100), 1~160 (CIX200, CIX670/1200 Basic), 1~560 (CIX670 Exp, CIX1200 Exp A), 1~1100 (CIX1200 Exp B) (default = no value)
DN	By selecting the Insert button you can add a new DN to the hunt group’s hunt order. Enter the desired DN in the pop-up dialog box. To modify an existing entry use the Modify button as described above. Possible values: Up to 5 ASCII characters (default = no value)
Set Type	Insert, Append, Modify (replace), Delete an existing assignment.



Hunt Group Table View

Hunt Group Table View enables you to view all hunt groups and its members.

To access the Hunt Group Table View

Select Station > Hunt Group Table View.

See [Table Views](#) in Chapter 2 for table functionality.

Note This table has more functions in addition to the regular functionality found in other table views.

The Navigation Bar has the following additional buttons:

- **Delete** – Click on a row to delete any directory number from a Hunt Group then click the **Delete** button. When the Delete button is active the Add button and the Delete Group button will not be active. To unselect a row that is selected (in yellow), click the row again.
- **Add** – To add directory numbers to a hunt group select the Hunt Group in the table view from the Navigation drop down in the Navigation bar, then click the **Add** button.

If no rows are selected, the **Add** button is active. Click the **Add** button to add members to Hunt Groups. When you click the **Add** button the Add dialog box displays.

Select the DN from the Available Directory Numbers box, then click the **Arrow** button in the center. This moves the DN to Hunt Group box on the left. Click **Add Now** to Save the entry or **Cancel** to cancel. Clicking **Add Now** automatically refreshes the table view.

In the dialog box, if you want 6200 to appear before 5200, click 6200 on the right, then click 5200 on the left and then click the arrow in the center.

- **Select All** and **Unselect All** – Clicking these buttons selects or unselects all groups in a table.

502 Paging Group

502 Terminal Paging Group Assignment

Prerequisite Program: 200 [page 5-1](#)

Assigns Primary DNs to Paging Group(s).

1. Select Station > Paging Group.
2. Enter a DN in the Primary DN field or select an existing record by clicking one of the following buttons:
 - **List** – select from a summary list of programmed DKTs on the right side of the screen.
 - **Copy** – Enter a DN in the Primary DN field and click **Copy**. Enter a new DN(s) to assign existing Paging Group settings.
 - **Get Default** - Sets all data to factory defaults.
3. Select the desired values. See descriptions below.
4. Click **Submit**.

FIELD	DESCRIPTION
00 Primary DN	<p>Enter the Prime DN of the station to be assigned to paging groups. A station may belong to more than one paging group.</p> <p>Note You can have up to 72 stations in a paging group in the CIX100 and up to 120 stations in a paging group in the CIX200, CIX670 & CIX1200.</p> <p>Page Group capacity:</p> <ul style="list-style-type: none"> • CIX100, CIX40 & CTX28, 4 Page Groups • CIX670 Basic & CIX200, 8 Page Groups • CIX670 Expanded, 16 Page Groups • CIX1200 Basic, 8 Page Groups (HCTU only) • CIX1200 Expanded, 24 Page Groups (HEXAU or HEXBU) <p>Possible values: Up to 5 ASCII characters (default = no value))</p>
01~16 Page Group (CIX40, 100, 670)	<p>Check to assign the DN to this paging group.</p> <p>Page Group capacity:</p> <ul style="list-style-type: none"> • CIX100, CIX40 & CTX28, 4 Page Groups • CIX670 Basic & CIX200, 8 Page Groups • CIX670 Expanded, 16 Page Groups • CIX1200 Basic, 8 Page Groups (HCTU only) • CIX1200 Expanded, 24 Page Groups (HEXAU or HEXBU) <p>Note Note: You can have up to 72 stations in a paging group in the Strata CIX100 and up to 120 stations in a paging group in the Strata CIX 200/670/1200.</p> <p>Possible values: On or Off (default).</p>
19-26 for PG17~24 (CIX1200 only)	

Station

FIELD	DESCRIPTION
17 All Call Page Group	<p>Check to assign the DN to this paging group.</p> <p>Page Group capacity:</p> <ul style="list-style-type: none"> • CIX100, CIX40 & CTX28, 4 Page Groups • CIX670 Basic & CIX200, 8 Page Groups • CIX670 Expanded, 16 Page Groups • CIX1200 Basic, 8 Page Groups (HCTU only) • CIX1200 Expanded, 24 Page Groups (HEXAU or HEXBU) <p>Note Note: You can have up to 72 stations in a paging group in the Strata CIX100 and up to 120 stations in a paging group in the Strata CIX 200/670/1200.</p> <p>Possible values: On or Off (default)</p>
18 All Call Emergency Page Group	<p>Check to assign the DN to the All Emergency Page Group.</p> <p>Page Group capacity:</p> <p>CIX100, CIX40 & CTX28, 4 Page Groups</p> <p>CIX670 Basic & CIX200, 8 Page Groups</p> <p>CIX670 Expanded, 16 Page Groups</p> <p>CIX1200 Basic, 8 Page Groups (HCTU only)</p> <p>CIX1200 Expanded, 24 Page Groups (HEXAU or HEXBU)</p> <p>Note You can have up to 72 stations in a paging group in the Strata CIX100 and up to 120 stations in a paging group in the Strata CIX 200/670/1200.</p> <p>Possible values: On or Off (default)</p>
19 Page Group 17~24	<p>Check to assign the DN to this paging group.</p> <p>Page Group capacity:</p> <p>CIX100, CIX40 & CTX28, 4 Page Groups</p> <p>CIX670 Basic & CIX200, 8 Page Groups</p> <p>CIX670 Expanded, 16 Page Groups</p> <p>CIX1200 Basic, 8 Page Groups (HCTU only)</p> <p>CIX1200 Expanded, 24 Page Groups (HEXAU or HEXBU)</p> <p>Note You can have up to 72 stations in a paging group in the Strata CIX100 and up to 120 stations in a paging group in the Strata CIX 200/670/1200.</p> <p>Possible values: On or Off (default)</p>

Paging Group Table View

Paging Group Table View enables you to view all paging groups and its members.

To access the Paging Group Table View

Select Station > Paging Group Table View, or if you are in Prog 502, click **Terminal Paging Group Table View**.

See [Table Views](#) in Chapter 2 for table functionality.

For functionality on Delete, Add, Select All and Unselect All, refer to "Hunt Group Table View" on [page 5-32](#)

Note The **Add** button works a little different on this table. When you click **Add**, the Add dialog box displays. Select the entry by clicking on it and then click the **Add Now** button.

210 Pickup Group

Prerequisite Program: 200 [page 5-1](#)

The Call Pickup Group assignments specify which group numbers this station will participate in when either the Group Call Pickup or the Group Directed Call Pickup features are invoked. A user may be assigned to more than one group.

1. Select Station > Pickup Group.
2. Enter a DN in the Primary DN field or select an existing record by clicking one of the following buttons:
 - **List** – select from a summary list of programmed DKTs on the right side of the screen.
 - **Copy** – Enter a DN in the Primary DN field and click **Copy**. Enter a new DN(s) to assign existing Paging Group settings.
 - **Get Default** - Sets all data to factory defaults.
3. Select the desired values. See descriptions below.

Click **Submit**

FIELD	DESCRIPTION
01~48	<p>Click in the radio button to Indicate which Call Pickup Group(s) this station is to participate in. A station can be assigned to more than one group.</p> <p>Possible values:check = On; or unchecked = Off (default)</p> <p>Note 01~05 CIX40/100 and CTX28, 01~10 CIX200/670/1200 Basic, 01~32 CIX670 Expanded, 01~48 CIX1200 Expanded.</p>

Pickup Group Table View

Pickup Group Table View enables you to view all Pickup groups and members.

To access the Paging Group Table View

Select Station > Pickup Group Table View. If you are in Prog 210, click the **Call Pickup Group Table View button**.

See [Table Views](#) in Chapter 2 for table functionality.

For functionality on Delete, Add, Select All and Unselect All, refer to "Hunt Group Table View" on [page 5-32](#).

Note The **Add** button works a little different on this table. When you click **Add**, the Add dialog box displays. Select the entry by clicking on it and then click the **Add Now** button.

Multiple Call Group

To set up Multiple Call/Delayed Ringing you must have a Multiple Call (MC) Group set in Program 517. You can register up to 25 calling members for every MC Group in Program 518. You can set each member to be Immediate, Delayed Ring 1, or Delayed Ring 2. The Delayed Ring times are independently adjustable (1~180 seconds) for each Multiple Call Group Member.

Important! Immediate Destinations can only be PDNs (Digital and/or Standard Telephones) and PhDNs. See Member Requirements below.

Delay Destinations can be PDNs of standard telephone circuits only and Voice Mail Hunt Group Pilot Numbers (not Multiple DN Hunt Groups).

Incoming Call to Multiple Call (MC) Group

The following can occur when calling members are set as Immediate, Delayed Ring 1, or Delayed Ring 2.

- If the members of an MC Group are assigned Immediate ring, the call is received at all destinations immediately. In this case, each destination LCD displays the same incoming call information.
- If the MC Group destination (member) is assigned to Delayed Ring 1 or Delayed Ring 2, each destination will start to ring when the delay time runs out. During the delay time the member PDN or PhDN button will flash red but not ring.

Important! Delay Destinations can be PDNs of standard telephone circuits only and Voice Mail Hunt Group Pilot Numbers (not Multiple DN Hunt Groups).

- If some MC Group destinations are busy, incoming calls ring only idle destinations. However, if the camp-on feature is in effect incoming calls will camp-on to busy destinations.
- Members can be assigned to multiple MC Groups.

MCPN Owner Privileges

When you assign members to an MC group the member assigned to Index 1 in Program 518 is considered the owner of the group. The owner of the group is the only member entitled to the following privileges:

- The owner is the only member in the group that can receive Automatic Call Back calls and Message Waiting Indications.
- The ringing option for the owner is always set to Immediate ring.
- The owner can be a PhDN or PDN.

Member Requirements

The table below has details for members that can and cannot be in a group.

Members that can be in a Group	Members that cannot be in a Group
PDNs	Pilot DNs - ACD, MCP
PhDNs	CO Line Access Codes
Station Hunt Group Pilot DNs	Attendant Consoles and BATI or DKTs assigned to the Attendant in programming.

Important!

- Immediate Destinations can only be PDNs (Digital and/or Standard Telephones) and PhDNs.
- Delay Destinations can be PDNs of standard telephone circuits only and Voice Mail Hunt Group Pilot Numbers (not Multiple DN Hunt Groups).
- Attendant Consoles cannot be members of multiple call groups and cannot overflow to MC groups. Assigning Attendant Consoles to MC groups will cause Attendant Consoles to malfunction. Do not set Attendant Consoles to overflow to MC groups.

Call Forward Activation

System and Station Call Forward can be set up for each Multiple Calling (MC) Group. The Call Forward Remote Access Code is used to activate or de-activate Station Call Forward of MC Group. System Call Forward is activated/deactivated using Strata eManager. The MC Group can also be set as the destination of System or Station Call Forward.

517, 519 Multiple Call Group Assignment

Multiple Call/Delayed Ringing which enables you to delay ring to voice mail and auto attendants.

1. Select Station > Multiple Calling Group.
2. Click **Create**. A dialog box displays.
3. Enter a calling group index in the dialog box. The calling group index can be:
1~16 (CIX100), 1~32 (CIX200, CIX670 Basic), 1~64 (CIX670 Expanded) 1~32 (CIX1200 Basic), 1-96 (CIX1200 Expanded)
4. Click **OK**. Parameter - 01 MC Group Pilot Number gets highlighted.
5. Enter the DN of the MC group. This number should not conflict with an existing telephone number.
6. Verify and change other parameters.
 - **Get Default** - Sets all data to factory defaults.
7. Click **Submit**. The group index displays on the left of the program name.

FIELD	DESCRIPTION
Multiple Call Group Number	Select a group number. Possible values: 1~16 CTX28, 1~16 CIX40, 1~16 CTX/CIX/100, 1~32 CIX200, 1~32 CTX/CIX 670 BCTU only or BBCU only, 1~64 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~32 CIX1200 HCTU only, 1~96 CIX1200 HCTU + HEXAU, 1~96 CIX1200 HCTU + HEXBU
01 MC Group Pilot Number	Enter the pilot directory number that should be assigned to the Multiple Call Group. This can be any number, 1~5 digits, that does not conflict with numbers in the current system number plan. Possible values: 1~5 digits (default = no data)
02 Ring Delay 1 Timer	Set the timer in seconds. Possible values: 1~180 (default = 12)
03 Ring Delay 2 Timer	Set the timer in seconds. Possible values: 1~180 (default = 24)
04 System Call Forward	Assign a system call forward template number to the multiple calling group. Possible values: 0~4 CIX/CTX100 & CTX28 & CIX40, 0~10 CIX/CTX670 & CIX200 Basic, 0~32 CIX/CTX670 Exp., 0~10 CIX200 Basic HCTU only, 0~48 CIX1200 Exp. HEXAU or HEXBU (default = 0)
05 Voice Mail ID	Enter the VM call forward ID digits for the multiple calling group. Possible values: Up to 10 digits (default = no data).

518 Multiple Call Group Members Assignment

Prerequisite Program: 517

Use this program to assign members to a group.

1. Select > Station > Multiple Call Group.
2. Click the Member tab.
3. Select the Index Number, then enter the Member DN.

Important! Immediate Destinations can only be PDNs (Digital and/or Standard Telephones) and PhDNs.

Delay Destinations can be PDNs of Standard Telephone circuits only and Voice Mail Hunt Group Pilot Numbers (not Multiple DN Hunt Groups).

Note Each group can have up to 25 members. You can have up to 64 groups.

Note The buttons on this screen are dynamic. When you select an empty index number the **Add** button displays. When you select an existing index number the **Modify** and **Remove** buttons display. Modify enables you to edit, while Remove deletes the multiple ringing group index number.

FIELD	DESCRIPTION
Multiple Call Group Number	Multiple Call Group Number CIX100, enter 1~16. CIX200, CIX670 Basic enter 1~32. CIX670 Exp enter 1~64, CIX1200 Basic, enter 1~32, CIX1200 Exp enter 1~96
03 Member DN	Select an index to add a new member to this MC Group; or select an existing Member DN to Modify or Delete the member. To add a Member DN, enter a PDN, PhDN, or Hunt Group Pilot number that exists in the system, then select which ringing option should be assigned to the member (Member DNs can be in multiple MC Groups). Possible values: Up to 32 digits (default = No Data)
04 Ringing Options	Select: Immediate, Delay 1 or Delay 2 ring. Note <ul style="list-style-type: none"> • Immediate ring assignments will continue to ring when Delay 1 & 2 ring assignments ring. • Delay 1 ring assignments will continue to ring when Delay 2 ring assignments ring. • Delay ring PDN and PhDN buttons will flash red and not ring immediately after the MC Group is called; they will ring and flash green when their delay ring timers expire.

516 Station Speed Dial

Prerequisite Program: 200 [page 5-1](#)

Up to 100 pre-programmed speed dial numbers (up to 32 digits each) can be assigned to each station. speed dial numbers are stored in “bins” and each station accesses the speed dial numbers by entering the speed dial bin number from their respective stations. The following advanced speed dialing features are available in Strata CIX.

- Speed Dial Bin Linking – Whenever a speed dial number exceeds the 32-digit speed dial bin memory limitation the digits exceeding the 32 digit limitation are automatically stored into the adjacent speed dial bin. The entire string is activated by using the primary speed dial bin number.

Note Bin-linking is automatic. Any previously programmed data in the “adjacent speed dial bin” as described above is overwritten. Furthermore, if a number exceeding the maximum allowable dial digit length is overwritten with a new number which complies to the 32-digit restriction, the excess digits recorded in the next bin (from the previous entry) is treated as a unique speed dial record.

- Speed Dial Number Nesting – A speed dial number can be nested into another speed dial number. For example, if an international dialing prefix is used often, program the prefix in any speed dial bin. Then in another speed dial bin program the first bin number + the number to dial. When the second speed dial bin is activated, Strata CIX first retrieves and dials the international dialing prefix from the first bin location, then adds the numbers to dial.

1. Select Station > Speed Dial.
2. Enter Program 516 data.
3. Click **Submit**.

FIELD	DESCRIPTION
Prime DN	Select the PDN assigned the speed dial number.
01 Speed Dial Index	<p>Enter the station speed dial bin number. A station can have up to 100 speed dial bins.</p> <p>Possible values:00~99 (default = no value)</p> <p>Note Adding bin numbers here will automatically increment the number of speed dial bins available to the station in increments of 10 speed dial bins. The number of speed dial bins available to the station can also be assigned and displayed in Prog 200, 35 - Station SpDial Bins. Example: If bin number 50 is entered here, 50 speed dial bins will automatically be assigned to the station and will also be displayed in Prog 200, 35.</p>

FIELD	DESCRIPTION
02 Number	<p>This is the dialable number stored in the speed dial bin.</p> <p>Possible values: Up to 32 digits, 0~9, *, # and Pauses (default = no value)</p> <p>To enter pauses enter Px, where x equals 0~9 (seconds), which is the length of the pause, 0=10 seconds.</p> <p>Note</p> <ul style="list-style-type: none"> • If the number being entered exceeds the 32 digits, the next speed dial location will automatically be appended to create longer numbers. • Also another speed dial bin can be nested within another bin for dialing common numbers. If speed dial bin 100 has long distance access digits 1010321, these digits can be nested in to other speed dial bins by using *100 as the first digits of the other bins. Example: Putting *10017145563425 into speed dial bin 150 would cause SD150 to dial the access digits plus the number 10132117145563425. • If you are programming from the telephone, the digits * and # have a special meaning when programming speed dial numbers. The # digit indicates the end of entry and * is an escape character. To dial the digits * or # as part of the number; enter ** or *#. To enter pauses enter *0~*9. The second digit represents the number of seconds for the pause function.
03 Speed Dial Name	<p>Enter the LCD Name that displays on LCD dial directories.</p> <p>Possible values: Up to 8 characters (default = no value)</p>
Dialing Code	<p>Dial code that user accesses from the phone.</p>

Station Speed Dial Table View

Station Speed Dial Table View shows the entire set up for all speed dial numbers.

To access the System Speed Dial Table View

Select System > System Speed Dial Table View or from the program (516), click the **Station Speed Dial Table View** button.

See Table Views on page 2-17 for table functionality.

PDN Table View

This screen shows the entire list of available PDNs.

To access the Station Speed PDN Table View

Select Station > PDN Table View.

Note See Table Views on page 2-17 for table functionality.

ISDN

The following programs assign ISDN data to stations.

Program Number(s): 202 and 217

202 ISDN BRI Station

Prerequisite Program: 100 [page 4-1](#)

This command assigns ISDN BRI stations.

1. Select Station > Basic ISDN.
2. Enter a Primary DN for an existing record or click one of the following buttons:
 - **List** – view a summary list of programmed DNs.
 - **Create** – Assign a new Primary DN with custom BRI Station settings.
 - **Copy** – Enter a DN in the Primary DN field and click **Copy** to make a new DN assignment with BRI Station settings copied from the DN entered in the Primary DN field.
 - **Delete** – Enter an ISDN Primary DN to delete and click **OK**.
 - **Change DN** – Enter a DN in the Primary DN field and click **Change DN** to assign a new DN to the ISDN BRI Station.
 - **Get Default** - Sets all data to factory defaults.
3. Set up ISDN BRI Station using the Program Detail table below.
4. Click **Submit**.

FIELD	DESCRIPTION
Primary DN	Enter the PDN. When a required DN is not programmed, the DN is regarded as a new station. The system assigns default data as defined in 217 ISDN Station Data . Possible values: Up to 5 digits (default = no value)
01 PDN Equipment No.	Enter the BRI equipment number assigned to this PDN. This is the cabinet, slot, and circuit number of the RBUU/RBUS or RBSU/RBSS interface PCB to which the PDN is or should be, assigned. Enter data as xxyyzz: Example: If the PDN should be assigned to a BDKU in cabinet 5, slot 2, circuit 3, enter 050203. Cabinet numbers: CIX100: Select 01 for Base and Exp cabinet. CIX200: Select 01 for Base and 02 for Exp cabinet. CIX670: Select 01 for Base and 02~07 for each Exp cabinet. CIX1200: Select 01 for Base and 02~12 for each Exp cabinet Slot numbers: CIX100: Select 01~04 for Base slots and 05~08 for Exp slots. CIX200: Select 01 ~ 04 for either cabinet. CIX670: Select 01~08 for Base slots and 01~10 for Exp slots. CIX1200: Select 01~08 for Base slots and 01~10 for Exp slots
02 ISDN Channel Group	Enter the ISDN Channel Group number. Possible values: 1~32 (CIX100), 1~48 (CIX200, CIX670 Basic) 1~128 (CIX670 Exp), 1~48 (CIX1200 Basic), 1~128 (CIX1200 Exp A), 1~220 (CIX1200 Exp B) (default = 1)

FIELD	DESCRIPTION
03 ISDN Protocol	Select the ISDN protocol. Only Bearer capabilities specified by the protocol can be entered in this field. The Initial value for ISDN Protocol corresponds to information set in the hardware level. Possible values: Nat'l ISDN (default), ETSI, TTC or Nat'l ISDN Nortel Note National ISDN = North America, ETSI = England and TTC = Japan.
04 Type Connection	Select Point to Point or Point to Multi-point connection type. Possible values: Point to Point (default) or Point to Multi-point
05 COS	Select the BRI Station Class of Service assignments.
• Day1 COS	Possible values: 1~32 (default = 1)
• Day2 COS	
• Night COS	
06 DRL	Select the BRI Station Destination Restriction Level assignments.
• Day1 DRL	Possible values: 1~16 (default = 1)
• Day2 DRL	
• Night DRL	
07 FRL	Select the BRI Station Facilities Restriction Level assignments.
• Day1 FRL	Possible values: 1~16 (default = 1)
• Day2 FRL	
• Night FRL	
08 LCR Group	Select the Least Cost Routing Group number to which this BRI Station belongs. Possible values: 1~16 (default = 1)
09 QPL	Select the BRI Station QPL assignments.
• Day1 QPL	Possible values: 1~16 (default = 1)
• Day2 QPL	
• Night QPL	
10 Speech Capability	Bearer Capability Speech See Table 5-6 on page 46 . Possible values: Enable or Disable (default = Enable)
11 3.1KHz Audio	Bearer Capability 3.1kHzAudio See Table 5-6 on page 46 . Possible values: Enable or Disable (default = Enable)
12 7KHz Audio	Bearer Capability 7kHzAudio. See Table 5-6 on page 46 . Possible values: Enable or Disable (default = Disable)
13 64Kbps Unrestricted	Bearer Capability unrestricted digital information 64kbps. See Table 5-6 on page 46 . Possible values: Enable or Disable (default = Enable)
14 56Kbps Unrestricted	Bearer Capability unrestricted digital information 56kbps
15 2x64Kbps Unrestricted	Bearer Capability unrestricted digital information 2x64kbps

FIELD	DESCRIPTION
16 B Channel Selection	Select originating B Channel method. Possible values: <ul style="list-style-type: none"> • Exclusive – (default) Channel is indicated and no alternative is acceptable. • Preferred – Channel is indicated and any alternative is acceptable. • Any Channel – Channel is indicated and any channel is acceptable.
17 Idle B Channel Selection	Choose Idle B Channel selection method. Possible values: Forward Cyclic, Backward Cyclic, Forward Terminal or Backward Terminal (default) <ul style="list-style-type: none"> • Select Forward Cyclic (from lowest to highest number of B-channel). • Select Backward Cyclic (from highest to lowest number of B-channel). • Select Forward Terminal for the lowest number B-channel (The Low-Low B-channel selection). • Select Backward Terminal for the highest number B-channel. (The High-High B-channel selection)
18 Interdigit Timer 1	Select the Interdigit timer value to time-out during dial tone. Possible values: 1~180 (default = 15)
19 Interdigit Timer 2	Interdigit timer value to time-out after the first digit is dialed. Possible values: 1~180 (default = 5)
20 CESID	Enter the CESID value for 911 calls. Possible values: Up to 16 ASCII characters (default = no value)
21 Number Voice Calls Allowed	Select the Number of Voice Calls Allowed. If a selection is not made, previously written data in this field is erased. Possible values: One or Two (default) Note If One is selected the other channel is reserved for Data.
22 Service Tone Permission	Enable Service Tone Permission. Select Disable for modems and faxes. Possible values: Enable or Disable (default = Disable)
23 TGAC Override	Enable TGAC Override. Possible values: Enable or Disable (default = Disable)
24 Set System Speed Dial	Enable System Speed Dial changing permission. Possible values: Enable or Disable (default = Disable)
25 Network COS	Enter the Network COS value. If a selection is not made, previously written data in this field is erased. Possible values: 1~32 (default = 1)
26 DN2~32 DN8	Add a DN to this BRI Station. When a DN is entered into one of the seven available fields, default data as defined in 217 ISDN Station Data is applied to the DNs. If a selection is not made, any previously written data in this field is erased. Possible values: Up to 5 ASCII characters (default = no value)

FIELD	DESCRIPTION
33 Auto OCA	<p>Enable OCA to occur automatically when making a call to a busy station that allows calls to be received.</p> <p>Possible values: Enable or Disable (default = Enable)</p>
34 Originate OCA	<p>Enable this station to make OCA calls to other stations.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
35 Station SpDial Bins	<p>The number of station speed dial bins allocated to this station.</p> <p>Possible values: maximum=100</p>
36 Call Forward Dial Tone	<p>When the handset is picked up the user will hear stutter dial tone if a call forward is enabled</p> <p>Possible values: Enable or Disable (default = Disable)</p>
37 Dialing Digit Restriction	<p>After the ISDN extension has made a call it can be prevented from dialing any subsequent digits.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
38 MW Stuttered Dial Tone	<p>Enable: When this station goes off hook, the station will receive stuttered dial tone when it has a message waiting indication, and the station will receive a busy tone burst before dial tone when in the DND mode.</p> <p>Disable: This station will receive normal dial tone when it has a message waiting or when it is in the DND mode.</p> <p>Possible values: Enable or Disable (default = Enable)</p>
39 Tenant Number	<p>Enter the Tenant number to which this PDN should be assigned.</p> <p>Possible values: 1 ~ 8 (default = 1)</p>
40 Auto-Campon to PDN	<p>This feature allows automatic camp-on to a PDN even when it is busy and called by a CO line. If automatic camp-on to PDN is enabled, a call to a PDN can camp-on even if the CO line group has auto camp-on disabled in Prog 304-17.</p> <p>Possible values: Enable: Allow auto camp-on to PDN or Disable: No auto camp-on to PDN</p>
41 LCR PDN Code	<p>Enter the number of digits that determine when to send the LCR PDN code. The PDN code is registered in the LCR Modified Digits table.</p> <p>Possible values: Three Digits or Four Digits (default = Three Digits)</p>
42 Network Calling Number	<p>Enter the CLID telephone number that should be sent for this station when making external calls through the Strata Net ISDN network (32 digits max.). When this station makes outgoing calls through the Strata Net network, this number will be sent over the Strata Net network to the terminating PSTN connected to the far-end node (providing this is allowed by the PSTN). This number will be displayed as the Caller ID number at the terminating external telephone. This number is not sent to local PSTNs connected to the node from which the call is originated, nor is it sent when making conventional Tie line calls that terminate on a PSTN at a far-end node.</p> <p>Possible values: Up to 32 digits (default = no data)</p>

Station

Table 5-6 BRI Bearer Capability of ISDN

Bearer Services		Belcore Nat'l ISDN	ETSI	TTC	
Circuit Mode	Speech	X	X	X	
	3.1kHz Audio	X	X	X	
	7kHz Audio		X	X	
	Unrestricted Digital Information	64 kbps	X	X	X
		Rate adaptation from 56 kbps	X		
		2x64		X	X

217 ISDN Station Data

Prerequisite Program: 202 [page 5-42](#)

Set ISDN Station parameters to define ISDN capabilities.

1. Select Station > ISDN Station Data.
2. Enter a Primary DN for an existing record or click one of the following buttons:
 - **List** – view a summary list of programmed Hunt Groups.
 - **Copy** – Enter a DN in the Primary DN field and click **Copy** to make a new DN assignment with BRI Station settings copied from the DN entered in the Primary DN field.
 - **Get Default** - Sets all data to factory defaults.
3. Set up ISDN Station Data using the Program Detail table below.
4. Click **Submit**.

FIELD	DESCRIPTION
Primary DN	Enter Primary DN. Possible values:Up to 5 digits (default = no value)
01 Station LCD Name	Enter the name that should be displayed on telephone LCDs for this PDN. (Max. 8 characters with R1.0~R2.20; Max.16 characters with R2.21 and above. Possible values:Up to 9 ASCII characters (default = no value)
02 Dial Method	Select the audible tone when dialing. Possible values:Dial Tone (default), Entry Tone or No Tone
03 System Call Forward	Select the System Call Forward assignment for this station. Possible values:0~4 (CIX100), 0~10 (CIX200, CIX670/1200 Basic), 0~32 (CIX670 Exp), 0~48 (CIX1200 Exp) (default = 0)
04 CF Password	Protect the System Call Forward settings by creating a password. Possible values:Up to 4 digits (default = no value)
05 Door Phone Override DND	Enable the Door Phone ringing indicator to override Do Not Disturb. Possible values:Enable or Disable (default = Disable)

FIELD	DESCRIPTION
06 Emerg Call Group	Select this station's emergency call group. Possible values: 1~8 (default = 1)
07 COS Override Code	Enable Class of Service Override. Possible values: Enable or Disable (default = Disable)
08 Display DN	Enter the DN to be displayed on the LCD. Possible values: Up to 5 digits (default = no value)
09 VMID Code	Enter the voice mailbox number that should answer calls when this PDN calls voice mail, or when this PDN is called and then forwards to voice mail (this number is prefixed by codes in Prog 579, 11~16). Possible values: Digits 0~9, * and #, up to 10 characters (default = no value). Note This VMID code is sent to the voice mail device in SMDI packets or DTMF tones on direct and forwarded calls to the PDN. See Prog 580 for SMDI or DTMF choice.
12 Name Display	Whether to put the user name in the list display. Possible values: Enable or Disable (default = Disable)
13 CPN Presentation to SBus	Determine what is sent to an SBus extension from an incoming ISDN trunk Possible values: DN, CPN or DN AND CPN (default = DN)

Setup Wizards

There are three station setup wizards—PDN Range, Multiple DN, and VMID Range. Each of them are described below.

PDN Range Setup Wizard

This wizard is a programming time saver that reduces the time it takes to create or change Primary Directory Numbers (PDN) and assign them to phones. The wizard guides the user to create a range of desired PDNs to be assigned to a range of available station ports.

1. Select Station > DN Setup > PDN Range.
Review the instructions that display on the Wizard screen.
2. Click **Start**. The Primary DN Setup Wizard screen displays.
3. Select the appropriate radio buttons and enter the data in the other fields.
 - Range of associated PDN equipment.
 - Selection to overwrite the existing PDNs.
4. (Optional) Click **Number Plan** button to access Numbering Plan page.
5. (Optional) Click **PDN Table View** button to view existing PDN Table.
6. Press **Start** to create PDNs.

The screen containing the PDN assignments displays.

Note The first available equipment number (card slot/circuit) is automatically used to create the first PDN, etc.

Multiple DN Assignment Wizard

Important!

- To avoid conflicts on new installations you should use this wizard immediately after establishing and assigning Primary DNs on telephones, especially before you program key strips or hunt groups.
- The wizard can be used to assign Multiple DNs to new stations when adding new station cards.

This wizard substantially reduces CIX installation time when you need multiple DN buttons on telephones. Multiple DNs are required in most CIX installations.

The wizard automatically programs multiple buttons onto telephones to operate as PDN buttons on the telephones. This wizard automatically groups the telephone's PDN button with the Phantom Directory Number (PhDN) buttons so they all operate like PDNs on the telephone—this simulates Strata DK multiple PDN operation. You will not have to set Call forward or VMID codes for the PhDNs since they automatically assume the PDN Call Forward and VMID code assignments.

On these screens you need to specify how many button appearances should appear as PDNs on each telephone or range of telephones (the number of buttons including the PDNs plus the PhDNs). You should also specify the starting PhDN and Hunt Group number to be used to set up the multiple DN groups.

Important! Make sure you know exactly how many multiple DNs should be on each telephone before using this wizard. After running the Multiple DN wizard, deletions or additions to Multiple DN assignments must be made manually, one-by-one, for each telephone PhDN button and Multiple DN hunt group. The wizard does not support changing existing Multiple DN assignments in this version of Strata eManager.

1. Select Station > DN SetUp > Multiple DN.
2. Click **Start**. Strata eManager automatically assigns the:
 - Appropriate number of PhDN buttons onto the telephone. These operate as PDN buttons on the telephone. PhDNs are assigned in sequence starting with the first button above the PDN.

CAUTION! If other buttons were installed in a PhDN location they will be overwritten.

- Appropriate telephone as the owner of the PhDN buttons starting with the PhDN you specified.
 - PDN of the telephone as the name of the PhDN buttons.
 - PDN and appropriate PhDNs of the telephone to the appropriate Multiple DN Hunt group, starting with the Hunt group number you specified.
3. Based on your requirements, enter the necessary fields.
 4. Click **Start** to generate the request. The screen will change.

Important!

- This is a report that provides the Multiple DN assignments that will be sent to the CIX.
 - Ensure that this information is correct before you click **Continue**. You can change the assignments by clicking **Back**.
5. Click **Continue** to generate results into the CIX database.

Note To modify these entries later you will have to use the appropriate individual program assignments.

6. Review the configuration screen. This is how the multiple DNs are assigned in the CIX after the wizard is done.
7. (Optional) To print the configuration results, click **Print**.
8. To exit, select a command from the Program pane.

VMID Range

This wizard reduces CIX programming time when you need to assign Voice Mail ID (VMID) codes. The wizard will automatically assign specified VMID codes for a range of Primary DNs, PhDNs, and/or Pilot DNs.

Specify the range of PDNs, PhDNs, or Pilot DNs that should have VMID code assignments. Then select the VMID code assignment method.

The three code assignment methods are to assign the VMID to:

- Be the same number as the appropriate DN (PDN, PhDN or Pilot DN).
- Start at a specific number and increment by one for each consecutive DN.
- Be the same number for all DNs.

In addition to the above assignments, specific digits including * and # can be added to the front and/or back of each VMID. This is not for Strategy codes 91, 92, etc., they are set in Program 579.

You can program a range of VMID codes for PDNs, PhDNs and/or Pilot DNs.

1. Select Station > DN Setup > VMID Range.
2. Click **Start**. The input screen of the VMID Range Setup Wizard displays.
3. Select the type of VMID that should be assigned to the PDN, PhDN or Pilot DN. Then select the assignment method and the digits, if any, to be added to front and/or end of each VMID. DN range is supported. VMID prefix and/or suffix are supported. Click **Start** to submit the settings to the CIX database.

User Setup

The User Setup wizard takes you through the process of creating a customer database. The first of the two screens presents you with the following question: What do you want to do?

- Create Primary Extensions with Mailbox
- Created Primary Extensions sharing the same mailbox
- Create mailboxes and route them to the same extension
- Create Primary Extensions without mailboxes
- Create mailboxes without extensions

The second screen is for advanced users:

- Create Primary Extensions
- Assign Mailbox NUmbers to Extensions
- Create mailboxes and assign extensions for Auto Attendant
- Assign User Names to mailboxes and extension LCD screen.

This chapter provides trunk programming information for the Strata CIX.

304, 305 Incoming Line Group

Program Number(s): 304

Incoming Line Groups (ILG) is a line selection feature which enables the use of external trunk or private line groups for incoming service.

1. Select Trunk > ILG.
2. Enter an ILG number or click one of the following buttons:
 - **List** – select from the summary list of ILGs on the right side of the screen.
 - **Create** – Assign a new ILG with default settings.
 - **Copy** – Enter an ILG in the Group Number field and click **Copy** to make a new ILG assignment with settings copied from the ILG entered in Group Number.
 - **Delete** – Delete an ILG.
 - **Get Default** - restores all data to factory defaults.
3. Enter Program 304 data.
4. Click **Submit**.

304 Incoming Line Group Assignment

Prerequisite Program: None

This assignment is used to configure ILGs only, OLGs are configured in the Outgoing Line Group Assignment 306. The same line can be placed in an ILG and OLG.

FIELD	DESCRIPTION
Group Number	Enter the group number of the line group that should be configured. Possible values: 0~32 (CIX100), 0~50 (CIX200, 670/1200 Basic), 0~128 (CIX670 Exp, 1200 Exp A), 0~220 (CIX1200 Exp B) (default = no value)
01 Group Type	Select the ILG Type. Possible values: Analog (default) or ISDN
02 Line Type	Select the Trunk Type. Possible values: CO (default) or Tie
03 CO Service Type	Select CO Trunk Service Type. Possible values: DID or DIT (default)
04 Private Service Type	Select the Tie Trunk Service Type. This field is required when Trunk Type is Tie. Possible values: Standard (default) or StrataNet
05 GCO Key Number	Select ILG GCO Key Group for DIT mode (see Trunk Type above). The same GCO cannot belong to different ILGs. Note: If CO keys are assigned in PRG205 to ring lines in this group, GCO assignments will be ignored and will not ring Possible values: 0~32 (CIX100), 0~50 (CIX200, CIX670/1200 Basic), 0~128 (CIX670 Exp, 1200 Exp A), 0~220 (CIX1200 Exp B) (default = no value)
06 Pooled Key Number	Select ILG Pooled Line Key Group for DIT mode. The same Pooled Line Group cannot belong to different ILGs. Note: If GCO or CO keys are assigned to ring lines in this group, Pooled key assignments will be ignored and will not ring. Possible values: 0~32 (CIX100), 0~50 (CIX200, CIX670/1200 Basic), 0~128 (CIX670 Exp), 0~220 (CIX1200 Exp) (default = no value)
07 COS	Select Class of Service Day 1, Day 2 and Night Values. Possible values: 1~32 (default = 1)
08 DRL	Select Destination Restriction Level Day 1, Day 2 and Night Values. Possible values: 1~16 (default = 1)
09 FRL	Select Facilities Restriction Level Day 1, Day 2 and Night Values. Possible values: 1~16 (default = 1)

FIELD	DESCRIPTION
10 QPL	Select Queuing Priority Level Day 1, Day 2 and Night Values. Possible values:1~16 (default = 1)
11 DID Digits	Select number of DID digits received from CO. Possible values:0~7 (default = 0)
12 Speech/3.1 KHz	Select Bearer Capability 3.1 KHz Audio or Speech. Possible values:Audio (default) or Speech
13 Delay1 Ringing Timer	Select time to ring the Delay 1 destination. Possible values:1~60 sec. (default = 12)
14 Delay2 Ringing Timer	Select time to ring the Delay 2 destination. Possible values:1~60 sec. (default = 24)
15 Interdigit 1 Timer	Select Interdigit 1 timer value. Possible values:1~180 sec. (default = 15)
16 Interdigit 2 Timer	Select Interdigit 2 timer value. Possible values:1~180 sec. (default = 5)
17 Auto Campon	Enable Automatic Camp-on. Possible values:Enable (default) or Disable.
18 Calling Number ID	Select whether the Calling Number Identification is provided by the User side or Network side. Possible values:User Provided (default) or Network Provided
19 Intercept	Enable Intercept. A call is transferred to a special destination called intercept position when the destination of a trunk line call is not determined with DID, DIT or DISA. Intercept is also activated when the destination is determined, but the call cannot be terminated due to a defect or an incorrect number. If the system has a simplified attendant console, the attendant console is usually specified to terminate the call. This function ensures termination of a trunk line call. Possible values:Enable or Disable (default)
20 Send Dial Tone	Whether or not to send dial tone to the originating system (for Tie trunks). Possible values:Enable or Disable (default)
21 TGAC Override	Enable Trunk Group Access Code (TGAC) override. Possible values:Enable or Disable (default)
22 Network COS	Enter the COS to be used in Traveling Classmark for Strata Net. Possible values:1~32 (default = 1)
23 LCR Group	Enter the LCR Group number. Calls from this ILG cannot tandem if this field is not entered. Possible values:1~16 (default = 1)

FIELD	DESCRIPTION
24 Change COS Override Code	Enable authority to change COS Override Code. Possible values: Enable or Disable (default)
25 Register Speed Dial Codes	Enable authority to create system speed dial codes. Possible values: Enable or Disable (default)
26 Originator Invoke OCA	Enable authority for the originator of a call to invoke OCA when encountering a busy station. Possible values: Enable or Disable (default)
27 Senderized Tone Mode	Send DTMF tones as a complete number rather than digit-by-digit. Possible values: Dial Tone (default), Entry Tone or Silence
28 Emergency Call Group	Used to enable E911 calling across a Strata Net network. The Strata Net ILG is assigned to an Emergency Call Group in the same way a station is in Program 200 field 17. Without this assignment, the call will not attempt to complete to one of the trunks in the Emergency Group and will result in an abandoned call. See Program 550, Enhanced 911 Emergency Call Group Assignment. Possible values: 1~8 (default = 1)
29 Tenant Number	Enter the Tenant number to which this DID number should be assigned. Possible values: 1~8.
30 Call-By-Call Cause	Enter the condition for which incoming ISDN calls disconnect when programmed for Call-By-Call (min./max.). User Busy: Cause 17 Circuit/Channel congestion: Cause 34

306, 307 Outgoing Line Groups

Prerequisite Program: None

OLG is a line selection feature which enables the use of external trunk or private line groups for outgoing service. Assign and configure up to 128 OLGs (the same line can be placed in an OLG and an ILG).

1. Select > Trunk > OLG.
2. Enter an OLG number in the Group Number field for an existing record or click one of the following buttons:
 - **List** – choose a summary list of programmed OLGs on the right side of the screen.
 - **Create** – Assign a new OLG with default settings.
 - **Copy** – Enter an OLG in the Group Number field and click **Copy** to make a new OLG assignment with settings copied from the OLG entered in Group Number.
 - **Delete** – Delete an OLG.
 - **Get Default** - restores all data to factory defaults.
3. Enter Program 306 data.
4. Enter Program 531. See “[DR Overview](#)” on [page 9-6](#) for details.
5. Enter Program 514. See “[514 SMDR for OLG Assignment](#)” on [page 9-45](#) for details.
6. Click **Submit**.

FIELD	DESCRIPTION
Group Number	Enter the OLG Group number. Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CTX670 HCTU + HEXAU, 1~220 CTX670 HCTU + HEXBU (default = no value)
01 Group Type	Select the OLG Type. Possible values: Analog (default), ISDN, SIP
02 Trunk Type	Select the Trunk Type. Possible values: CO (default) or Tie
03 Service Type	Service Type. Possible values: Standard (default) or StrataNet
04 GCO Key1 Number	Select the first GCO Key Group number. Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = no value)

FIELD	DESCRIPTION
06 Pooled Key1 Number	Select first Pooled Line Key Group number. Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = no value)
07 Pooled Key2 Number	Select second Pooled Line Key Group number. Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = no value)
08 COS	Select Day 1, Day 2 and Night Values. Possible values: 1~32 (default = 1)
09 FRL	Select Day 1, Day 2 and Night Values. Possible values: 1~16 (default = 1)
10 QPL	Select Day 1, Day 2 and Night Values. Possible values: 1~16 (default = 1)
11 Speech/3.1 KHz	Bearer Capability 3.1 KHz Audio or Speech. Possible values: Audio (default) or Speech
12 MOH Source	Select MOH Source. Possible values: Silence, External1~15, Internal (default)
13 Account Code	Whether or not Forced Account Code is applied when using this OLG. Possible values: Enable or Disable (default)
14 Destination Restriction	Whether or not Destination Restriction is applied when using this OLG. Possible values: Enable or Disable (default)
15 Credit Cart Calling	Whether or not to enable Credit Card Calling using this OLG. Possible values: Enable or Disable (default)
16 Send CESID	Whether or not E911 CESID information is sent (enabled) on this OLG. Possible values: Enable or Disable (default = Disable)
17 QSIG Sending Type	Digit sending mode for Strata Net only. Possible values: Cut Through or Senderized (default = Cut through)
18 Network COS	Select Network COS number. Possible values: 1~32 (default = 1)
19 Recall on AC15	This enables or disables the sending and detection of a recall signal on AC15 TIE lines. (This applies to the PACU PCBs only.) Possible values: Enable or Disable (default = Disable)

300, 301 Trunk Assignment

Prerequisite Program: 100 [page 4-1](#)

Assigns an analog or T1 trunk (line) and its parameters to the system. Click on each tab to navigate through the programs. The trunks assigned to the equipment display on the left of the screen. The first column displays the trunks used and the second column displays the equipment. You can also sort based on trunks and equipment.

Important! You must have Internet Explorer (IE) 6, or higher, on your PC for the sort to work correctly.

1. Select > Trunk > Trunk Assignments.
2. Enter a Trunk Number or click one of the following buttons:
 - **List** –choose from the summary list of programmed trunks on the right side of the screen.
 - **Create** – Assign a new trunk with default settings.
 - **Copy** – Enter a Trunk Number and click **Copy** to make a new trunk assignment with settings copied from the OLG entered in Group Number.
 - **Delete** – Delete a trunk.
 - **Get Default** - restores all data to factory defaults.
3. Enter Trunk Assignment Data.
4. Click **Submit**.
5. Click the Go Timer/DIT link to view Programs 308 and 310 (see “[308 Trunk Timer](#)” on [page 6-12](#) for details).

Note When assigning CAMA trunks for E911 (R2.22 MH232 and later, or M3.10 MK024 and later systems) set Release Supervision and Answer Supervision to Enabled.

FIELD	DESCRIPTION
Line Number	Enter the Line Number. Possible values: 1-6 CTX28, 1-31 CIX40, 1~64 CTX/CIX/100, 1~96 CTX/CIX 670 BCTU only or BBCU only, 1~264 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~96 CIX1200 HCTU only, 1~264 CIX1200 HCTU + HEXAU, 1~440 CIX1200 HCTU + HEXBU (default = no value)

FIELD	DESCRIPTION
01 Line Equipment No.	<p>Enter the line equipment number. Equipment numbers are required when assigning a new line to the system.</p> <p>Enter data as XXYYZZ:</p> <p>XX=cabinet 01~12 YY=slot 01~10 ZZ=analog trunk circuit 01~32</p> <p>Example: If a line should be assigned to an RCOU in cabinet shelf 5, slot 2, circuit 3, enter 050203.</p> <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Base, Exp.01 • CIX200: Base 01, Exp.02 • CIX670: Base 01, Exp 02~07. • CIX1200: Base 01, Exp 02~12 <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Base 01, Exp.05~08 • CIX200: Base/Exp.01~04 • CIX670/1200: Base 01~08 • CIX670/1200: Exp.01~10 <p>CTX28 and CIX40 assignments below are hard coded and cannot be changed.</p> <p>.</p> <p>01, 02 - 3 CO lines on motherboard - 28, 40 R1HW, 4 CO lines - 40 R2HW 01, 05 – GVMU - 28, GVPH - 40 R1HW, GIPx, MIPU or GCOCIH - 40 R2HW 01, 06 – GIPx, MIPU16 or GCOCIH - 40 R1HW, no card - 28, 40 R2HW 01, 08 - 3 CO lines on GCDU - 28, 40 R1HW and R2HW.</p>
02 Incoming Line Group	<p>Assign the trunk to an Incoming Line Group. Two-way trunks need to be members of one incoming and one outgoing line group.</p> <p>Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>
03 Outgoing Line Group	<p>Assign the trunk to an Outgoing Line Group. Two-way trunks need to be members of one incoming and one outgoing line group.</p> <p>Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>

FIELD	DESCRIPTION
04 Dial Mode	<p>Enter the Dial Mode.</p> <p>Possible values: DP 10PPS, DP 20PPS or DTMF (default)</p> <ul style="list-style-type: none"> • DP 10 PPS = Rotary Dial, 10 PPS • DP 20 PPS = Rotary Dial, 20 PPS
05 Signaling	<p>Enter the signaling type.</p> <p>Possible values: DID, Loop (default), Ground, Tie, LP (Jpn), SR (Jpn) or ACU (UK)</p>
06 Start Method	<p>Enter the Start Method. This setting defines the start protocol method used between the PSTN and this trunk (for DID/Tie trunks).</p> <p>Possible values: Immediate Start (default), Timing Start or Wink Start</p>
07 Release Supervision	<p>Enable Release Supervision from the CO.</p> <p>Possible values: Received or Not Received (default)</p> <p>Note When assigning CAMA trunks for E911 (R2.22 MH232 and later, or M3.10 MK024 and later systems) set this to Enabled.</p>
08 Answer Supervision	<p>Enable Answer Supervision from the CO.</p> <p>Possible values: Received or Not Received (default)</p> <p>Note When assigning CAMA trunks for E911 (R2.22 MH232 and later, or M3.10 MK024 and later systems) set this to Enabled.</p>
09 Trunk Name	<p>Enter the trunk name.</p> <p>Possible values: Up to 14 ASCII characters (default = no value)</p>
10 External Ring Repeat	<p>This option determines what ring signal is sent to telephones when a line rings the telephone. Select Supplied (CO Ring Repeat) to use the ring signal supplied by the CO or Centrex line. Select Not Supplied (CIX Ring) to use the standard ring signal supplied by the CIX.</p> <p>Important! Ring Not Supplied must be used on all DISA lines for proper ringing operation.</p> <p>Possible values: Supplied (CO Repeat) - (default) or Not Supplied (CIX Ring)</p>
11 DTMF Back Tone	<p>Select DTMF Back Tone type.</p> <p>Possible values: Padded, DTMF Tone (default) or No Tone</p>
12 Hunt Order	<p>The order within the trunks OLG in which the trunk will be seized for outgoing calls.</p> <p>Enter 1 for the first trunk seized, 2=next trunk, etc. Enter 999 for the last trunk to be seized.</p> <p>Possible values: 1~264 or Last One (default = 1)</p>

FIELD	DESCRIPTION
13 Immediate Cut-Through	<p>This option should be enabled on a line only if the talk-path must be established immediately after seizing a selected outgoing line.</p> <p>Example, a line connected to a Central Office Ringdown circuit.</p> <p>Possible values: Enable, Disable (default)</p> <hr/> <p>CAUTION! This option will bypass Destination Restriction and E911 digit analysis. Do not enable this option on a line where these functions are required.</p> <hr/> <p>This option is available only on Ground and Loop, analog or T1 circuits. It should not be enabled for Tie, DID, ISDN and StrataNet lines.</p>
14 CO Line Guard Time	<p>The interval between the release of a CO line and its eligibility to be seized again.</p>

313 Caller ID

Prerequisite Program: 300 [page 6-7](#)

This program assigns Caller ID circuits to the CO Line to which the circuit is connected. The ANI, DNIS, DID formats for T1 and analog DID CO Lines are also defined.

1. Select Trunk > Trunk Assignments, then click the Caller ID tab.
2. Enter a Trunk Number in Line No. for an existing record or click one of the following buttons:
 - **List** – choose from the summary list of programmed trunks on the right side of the screen.
 - **Copy** – Enter the Trunk Number in the Trunk Number field and click **Copy** to make new Caller ID trunk numbers.
3. Enter Caller ID Assignment data.
4. **Get Default** - restores all data to factory defaults.
5. Click **Submit**.

FIELD	DESCRIPTION
Line Number	Enter the Trunk Number. Possible values: 1-6 CTX28, 1-30 CIX40, 1~64 CTX/CIX/100, 1~96 CTX/CIX 670 BCTU only or BBCU only, 1~264 CTX670 BCTU + BEXU or BBCU + BECU, 1~96 CIX1200 HCTU only, 1~264 CIX1200 HCTU + HEXAU, 1~440 CIX1200 HCTU + HEXBU (default = no value)
01 Signaling Method	Specify the format for the interface being used. Possible values: Nothing (default), ANI/DNIS-MCI, ANI/DNIS-Sprint or CLASS (Caller ID)
02 Signaling Contents	Specify the contents of the ANI/DNIS format. Possible values: ANI and DNIS, ANI only, DNIS only or DID only (default = no value).
03 CLASS Equipment No.	If the CLASS type is chosen, the trunk must be assigned to a Caller ID circuit. Enter the RCIU/RCIS equipment number as xxyyzz. Notes <ul style="list-style-type: none"> • CLASS equipment numbers are required when assigning a trunk to an RCIU/RCIS circuit. • It can also be used to display the equipment location of existing caller ID circuit to trunk assignments. Example: If the trunk should be connected to a caller ID circuit (RCIU/RCIS) in cabinet shelf 5, slot 2, circuit 3, enter 050203.
04 Caller ID Ring Start	Assigns when an incoming call on an RCOU/RCOS analog line with RCIU/RCIS Caller ID should start ringing a station. Note Does not apply to BCOCIU/BCOCIS interface cards. Possible values: Enable - the call will ring the station as soon as the Caller ID data is sent on the line. Disable - the line will ring the station on the second ring signal sent from the PSTN. Default=Disable

308 Trunk Timer

Prerequisite Program: 300 [page 6-7](#)

These commands assign Trunk timers.

1. Select Trunk > Trunk Assignments, Timer tab.
2. Enter Trunk equipment number field. Enter Program 308 data.
 - **List** – choose from the summary list of programmed trunks timers on the right side of the screen.
 - **Copy** – to copy to trunk timer ports.
 - **Get Default** - restores data to factory settings.
3. Click **Submit**.

FIELD	DESCRIPTION
Line No.	<p>Enter the trunk equipment number. Equipment numbers are required when assigning a new trunk to the system. It can also be used to display the equipment location of existing trunks.</p> <p>Enter data as XXYYZZ:</p> <ul style="list-style-type: none"> • XX=cabinet 01~12 • YY=slot 01~10 • ZZ=analog trunk circuit 01~08 <p>or</p> <ul style="list-style-type: none"> • ZZ=T1channel 01~24 <p>Example: If a line should be assigned to an RCOU in cabinet shelf 5, slot 2, circuit 3, enter 050203.</p> <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX100: Base, Exp.01 • CIX200: Base 01, Exp.02 • CIX670: Base 01, Exp 02~07 • CIX1200: Base 01, Exp 02~12 <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX100: Base 01, Exp.05~08 • CIX200: Base/Exp.01~04 • CIX670/1200: Base 01~08 • CIX670/1200: Exp.01~10 <p>CTX28 and CIX40 assignments below are hard coded and cannot be changed.</p> <p>01, 02 - 3 CO lines on motherboard - 28, 40 R1HW, 4 CO lines - 40 R2HW</p> <p>01, 05 – GVMU - 28, GVPH - 40 R1HW, GIPx, MIPU or GCOCIH - 40 R2HW</p> <p>01, 06 – GIPx, MIPU16 or GCOCIH - 40 R1HW, no card - 28, 40 R2HW</p> <p>01, 08 - 3 CO lines on GCDU - 28, 40 R1HW and R2HW.</p>

FIELD	DESCRIPTION
01 Auto Release	<p>The Automatic Release timing: Select Disable if the CO does not send the automatic release signal on the Loop start line. If the CO does send the auto release signal, also known as Calling Party Control, set the detect duration time to 95ms or 450ms depending how long the CO opens the loop to disconnect the line.</p> <p>Possible values: Disable, Detect 95ms or Detect 450ms (default)</p>
02 Short Flash	<p>Select Short Flash Time</p> <p>Possible values: 0~15, where 1 = 100msec. (default = 5, which is .5 seconds) 0 = no flash, 1 = .1 sec., 2 = .2 sec. – 15=1.5 sec. 5 is the most common duration of a hookflash signal</p> <p>When a telephone initiates the short flash signal to the CO line (using the short Flash feature button or access code #450). The duration of a short flash is determined by this command. Normally this signal is used to hookflash a centrex line. The short flash range is 0 to 1.5 seconds in increments of 0.1 seconds.</p>
03 Long Flash	<p>Select Long Flash Time.</p> <p>Possible values: 0, 5, 10, 15, 20, 25 and 30, where 5 = .5 seconds. (default = 5)</p> <p>When a telephone initiates the long flash signal to the CO line (using the Long Flash feature button or access code #451). The duration of a long flash is determined by this command. Normally this signal is used to disconnect the line. The long flash range is 0 to 3 seconds in increments of 0.5 seconds. Possible values: 0=no flash, 5=.5 sec., 10=1sec. 15=1.5 sec., 20=2 sec., 25=2.5 sec., 30=3 sec.</p>
04 Pause after Flash	<p>Pause time after flash. After a flash signal is sent to a CO line, this timer determines when the line will start to send the dialed digits to the other end.</p> <p>Possible values: 0~5, 0 = immediately sent, and 1sec.delay to 5 sec.delay (default = 1 second delay before sending digits)</p>
05 Response Timer	<p>The response timer is for analog DID/TIE lines that have the “start method” set for “Timing” in Prog 300-06. After a line is seized this timer determines when the line will start to send the dialed digits to the other end.</p> <p>Possible values: 0=immediatly sent, and 50 msec.delay to 500 msec.delay (default = 500 msec delay before sending digits)</p>
06 Call Abandon Timer	<p>The interval after which the CIX stops sending ring tone to stations when an incoming call is abandoned (caller hangs up before the call is answered).</p> <p>Possible values: 6 Seconds or 8 Seconds (default)</p>

310 DIT Assignment

Prerequisite Program: 300 [page 6-7](#)

This program assigns DIT Number Analysis Table for DIT trunks. DIT trunks are ground and Loop start trunks.

1. Select Trunk > Trunk Assignments, DIT tab.
2. Enter Trunk equipment number field. Enter Program 310 data.
 - **List** – to view a summary list of programmed trunks timers.
 - **Copy** – to copy to trunk timer ports.
3. Click **Submit**.

FIELD	DESCRIPTION
Line No.	<p>Enter the trunk equipment number. Equipment numbers are required when assigning a new trunk to the system. It can also be used to display the equipment location of existing trunks.</p> <p>Enter data as XXYYZZ:</p> <ul style="list-style-type: none"> • XX=cabinet 01~12 • YY=slot 01~10 • ZZ=analog trunk circuit 01~08 <p>or</p> <ul style="list-style-type: none"> • ZZ=T1channel 01~24. <p>Example: If a line should be assigned to an RCOU in cabinet shelf 5, slot 2, circuit 3, enter 050203.</p> <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX100: Base, Exp.01 • CIX200: Base 01, Exp.02 • CIX670: Base 01, Exp 02~07. • CIX1200: Base 01, Exp 02~12 <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX100: Base 01, Exp.05~08 • CIX200: Base/Exp.01~04 • CIX670/1200: Base 01~08 • CIX670/1200: Exp.01~10 <p>CTX28 and CIX40 assignments below are hard coded and cannot be changed. 01, 02 - 3 CO lines on motherboard - 28, 40 R1HW, 4 CO lines - 40 R2HW 01, 05 – GVMU - 28, GVPH - 40 R1HW, GIPx, MIPU or GCOCIH - 40 R2HW 01, 06 – GIPx, MIPU16 or GCOCIH - 40 R1HW, no card - 28, 40 R2HW 01, 08 - 3 CO lines on GCDU - 28, 40 R1HW and R2HW.</p>

FIELD	DESCRIPTION
01 Day1 Destination Type 02 Day2 Destination Type 03 Night Destination Type	<p>Select Destination Type for each.</p> <p>Possible values: No Data (default), Dialing Digits, DISA, Built-in Modem, or Night Bell</p> <ul style="list-style-type: none"> • No Data – no destination will ring when the line rings into the system. • Dialing Digits – assigns the line to ring the directory number or access code defined in the Destination Digits assignment. • DISA – assigns the line to ring in as a DISA call. DISA dial tone will be returned to the caller. • Modem – assigns the line to ring the remote maintenance modem on the CIX processor. Used to call into the system with an eManager PC and modem. • Night Bell – Assigns the line to cause the night relay to pulse (one-sec. close / 3-sec. open)
Day1 Destination Digits Day2 Destination Digits Night Destination Digits	<p>Enter Destination, Directory Number or Access Codes for each, only if Dialing Digits is selected as Destination Type.</p> <ul style="list-style-type: none"> • If Dialing Digits is the Destination Type, enter the Directory Number that the line should ring. If the line should ring over external page, enter #31xx, where xx is the external Page group number. • If the default page access code #31 was changed, use the new page access code as the leading digits. • Line access codes and network routing numbers can also be entered to route incoming calls back out to a public or private network number.
04 MOH Source	<p>Possible values: Up to 32 digits (default = no value)</p> <p>Select the Music On Hold source for the line. Quiet Tone means no music on hold for the selected line.</p> <p>Possible values: Quiet Tone, External1~15, Internal (default)</p>

309, 312 Direct Inward Dialing

This command assigns DID number analysis tables to ILGs.

1. Select > Trunk > DID.
2. Select an ILG Group Number.
3. Enter a DID Number in the 01 DID Number field or click one of the following buttons:
 - **List** – choose from the list of programmed DIDs on the right side of the screen.
 - **Create** – Make a new DID assignment using default settings.
 - **Copy** – Enter a DID Number in 01 DID Number and click **Copy** to make a new DID assignment with settings copied from the DID Number entered.
 - **Delete** – Delete a DID.
 - **Get Default** - restores data to factory defaults.
4. Enter DID Assignment data.
5. Click **Submit**.

FIELD	DESCRIPTION
ILG Group Number	Select the ILG number. Possible values: 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CTX670 HCTU + HEXAU, 1~220 CTX670 HCTU + HEXBU (default = 0)
01 DID Number	Enter a DID number. Possible values: 1~7 digits may include wild card “?” where “?” = 0~9 (default = no value).
02 MOH Source	Set Music On Hold source for the DID number. Quiet tone means no music on hold for the selected DID number. Possible values: Quiet Tone, External 1~15, or Internal (default)
03 GCO Key Group	Enter GCO Key Group Number that should ring for this line group. Note: If CO Key or Dialing Digits are assigned as a ringing destination this assignment will be ignored and will not ring. Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)

FIELD	DESCRIPTION
04 Pooled Key Group	<p>If this line group is not assigned to ring a CO, GCO, or a Pooled line key, enter the Destination type that should ring:</p> <p>No Data - no destination will ring when the line rings into the system.</p> <p>Dialing Digits - assigns the line to ring the directory number or access code defined in the Destination Digits assignment.</p> <p>DISA - assigns the line to ring in as a DISA call - DISA dial tone will be returned to the caller.</p> <p>Modem - assigns the line to ring the remote maintenance modem on the CIX processor. Used to call into the system with an eManager PC and modem.</p> <p>Night Bell - Assigns the line to cause the night relay to pulse (one-sec.close/3-sec.open).</p> <p>Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>
05 Audio Day1 Dst Type	<p>If this line group is not assigned to ring a CO, GCO, or a Pooled line key, enter the Destination type that should ring:</p>
06 Audio Day2 Dst Type	<p>No Data - no destination will ring when the line rings into the system.</p>
07 Audio Night Dst Type	<p>Dialing Digits - assigns the line to ring the directory number or access code defined in the Destination Digits assignment.</p> <p>DISA - assigns the line to ring in as a DISA call - DISA dial tone will be returned to the caller.</p> <p>Modem - assigns the line to ring the remote maintenance modem on the CIX processor. Used to call into the system with an eManager PC and modem.</p> <p>Night Bell - Assigns the line to cause the night relay to pulse (one-sec.close/3-sec.open).</p>
Possible values: No Data (default), Dialing Digits, DISA, Built-in Modem or Night Bell	
Audio Day1 Dest Audio Day2 Dest Audio Night Dest	<p>Enter the Destination Directory Number or Access Code.</p> <p>Possible values: Up to 32 digits (default = no value)</p> <p>If Dialing Digits is the Destination Type enter the Directory Number that the line should ring. If the line should ring over external page, enter #31xx, where xx is the external page group number. If the default page access code #31 was changed, use the new page access code as the leading digits.</p> <p>Line access codes and network routing numbers can also be entered to route incoming calls back out to a public or private network number.</p>
08 Data Day1 Dst Type	<p>Select the Destination Type for data calls.</p>
09 Data Day2 Dst Type	<p>Possible values: No Data (default), Dialing Digits, DISA, Built-in Modem or Night Bell</p>
10 Data Night Dst Type	

FIELD	DESCRIPTION
Data Day1 Destination Data Day2 Destination Data Night Destination	<p>Enter the Destination Directory Number or Access Code.</p> <p>Possible values: Up to 32 digits (default = no value)</p> <p>If Dialing Digits is the Destination Type enter the Directory Number that the line should ring. If the line should ring over external page, enter #31xx, where xx is the external page group number. If the default page access code #31 was changed, use the new page access code as the leading digits.</p> <p>Line access codes and network routing numbers can also be entered to route incoming calls back out to a public or private network number.</p>
11 DID/DNIS No. VMID	<p>Enter the VM mailbox number which should answer calls for this DID/DNIS number.</p> <p>Possible values: Up to 10 digits (default = no value)</p> <ul style="list-style-type: none"> This code is only sent if using SMDI VM integration in Program 580, 01. This code is replaced after voice mail answers by the DTMF code set in Program 309, 15 DID/DNIS DTMF VMID code - if programmed. Therefore, if using Program 309, 15 code, this VMID code is not necessary. <p>This mailbox number is sent to voice mail on a DID/DNIS call that rings directly to voice mail and on a direct DID/DNIS call to a DN that forwards to voice mail before it is answered by the DN.</p> <p>If a DID/DNIS call is answered by a station and then transferred to a DN that forwards to voice mail, this mailbox number of the DID/DNIS number or the forwarding DN's mailbox number will be sent to voice mail per Program 579, 01.</p> <p>If this VMID code is not set, direct DID/DNIS calls will go to the VM general greeting and DID/DNIS calls that forward from a DN to VM will go to the DN's VMID mailbox.</p> <p>This Voice Mailbox number is added to SMDI packets direct and forwarded DID\DNIS calls to voice mail as explained above.</p>
12 DID/DNIS Name	<p>Enter DNIS name. Names are assigned from eManager (not programming phones).</p> <p>Possible values: Up to 16 ASCII characters (default = no value)</p>
15 VM Application Digits	<p>Enter the VM mailbox number which should answer calls for this DID/DNIS number.</p> <p>Possible values: Digits 0~9, * and #. For a pause enter Px, where x=0~9 (seconds), up to 10 characters (default = no value).</p> <p>This mailbox number will be sent to voice mail on a DID/DNIS call that rings directly to voice mail and on a direct DID/DNIS call to a DN that forwards to voice mail before it is answered by the DN.</p> <p>If a DID/DNIS call is answered by a station and then transferred to a DN that forwards to voice mail, this mailbox number of the DID/DNIS number or the forwarding DN's mailbox number will be sent to voice mail per Program 579, 01.</p> <p>If this VMID code is not set, direct DID/DNIS calls will go to the VM general greeting and DID/DNIS calls that forward from a DN to VM will go to the DN's VMID mailbox. This voice mailbox number is sent to the VM port as DTMF digits after the VM port answers a DID/DNIS call as explained above. These digits are sent to the VM port if the CIX is set for SMDI or DTMF integration in Program 580, 01.</p>
16 Tenant Number	<p>Enter the Tenant number to which this DID number should be assigned.</p> <p>Possible values: 1(default)~8.</p>

318 DID Intercept Assignments

Prerequisite Program: 304 [page 6-2](#)

This command assigns the DID Routing table when DID numbers are undefined or not received.

1. Select > Trunk > DID Intercept.
2. Enter an ILG Number or choose from the list of programmed ILGs on the right side of the screen.
3. Enter DID Type in the 01 Type field.
4. Enter DID Intercept Assignment data.
5. **Get Default** - restores data to factory defaults.
6. Click **Submit**.

FIELD	DESCRIPTION
ILG Number	<p>Enter ILG number.</p> <p>Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>
01 Type	<p>No DID - set destination that should ring when the received DID number does not match DID numbers in this group's DID table.</p> <p>Not Determined - set the destination that should ring when the normal programmed ringing destination is disconnected.</p> <p>Possible values: No DID (default) or Not Determined</p>
02 MOH Source	<p>Select Music On Hold.</p> <p>Possible values: Quiet Tone, External 1~15, or Internal (default)</p>
03 Group CO Destination	<p>GCO Key Group number.</p> <p>Possible values: 0~32 (CIX100), 0~50 (CIX200, CIX670/CIX1200 Basic), 0~128 (CIX670 Exp, CIX1200 Exp A), 0~220 (CIX1200 Exp B) (default = 0)</p>
04 Pooled Line Group	<p>POOL Line Key Group Number.</p> <p>Possible values: 0~32 (CIX100), 0~50 (CIX200, CIX670/CIX1200 Basic), 0~128 (CIX670 Exp, CIX1200 Exp A), 0~220 (CIX1200 Exp B) (default = 0)</p>

FIELD	DESCRIPTION
05 Audio Day1 Dst Type 06 Audio Day2 Dst Type 07 Audio Night Dst Type	<p>Select the Audio/Speech call Day1 destination type.</p> <p>Possible values: No Data (default), Dialing Digits, DISA, Built-in Modem or Night Bell</p> <ul style="list-style-type: none"> • No Data – no destination will ring when the line rings into the system. • Dialing Digits – assigns the line to ring the directory number or access code defined in the Destination Digits assignment. • DISA – assigns the line to ring in as a DISA call. DISA dial tone will be returned to the caller. • Modem – assigns the line to ring the remote maintenance modem on the CIX processor. Used to call into the system with an eManager PC and modem. • Night Bell – Assigns the line to cause the night relay to pulse (one-sec.close/3-sec.open)
Audio Day1 Dst. DN Audio Day2 Dst DN Audio Night Dst DN	<p>Enter the Destination Directory Number. Destination DN is only required if the destination type is Dialing Digits.</p> <p>Possible values: Up to 32 ASCII characters (default = no value)</p>
08 Data Day1 Dst Type 09 Data Day2 Dst Type 10 Data Night Dst Type	<p>Select the data call Day1 destination type.</p> <p>Possible values: No Data (default), Dialing Digits, DISA, Built-in Modem or Night Bell</p> <ul style="list-style-type: none"> • No Data – no destination will ring when the line rings into the system. • Dialing Digits – assigns the line to ring the directory number or access code defined in the Destination Digits assignment. • DISA – assigns the line to ring in as a DISA call. DISA dial tone will be returned to the caller. • Modem – assigns the line to ring the remote maintenance modem on the CIX processor. Used to call into the system with an eManager PC and modem. • Night Bell – Assigns the line to cause the night relay to pulse (one-sec. close / 3-sec. open).
Data Day1 Dst DN Data Day2 Dst DN Data Night Dst DN	<p>Enter the Destination Directory Number. Destination DN is only required if the destination type is Dialing Digits.</p> <p>Possible values: Up to 32 ASCII characters (default = no value)</p>

FIELD	DESCRIPTION
11 DID/DNIS No. VMID	<p>Enter the VM mailbox number which should answer calls for this DID/DNIS number.</p> <p>Possible values: Up to 10 digits (default = no value)</p> <p>Note This code is only sent if using SMDI VM integration in Program 580, 01. This code will be replaced after voice mail answers by the DTMF code set in Program 318, 15 DID/DNIS DTMF VMID code - if programmed. Therefore, if using Program 318, 15 code, this VMID code is not necessary.</p> <p>This mailbox number will be sent to voice mail on a DID/DNIS call that rings directly to voice mail and on a direct DID/DNIS call to a DN that forwards to voice mail before it is answered by the DN.</p> <p>If a DID/DNIS call is answered by a station and then transferred to a DN that forwards to voice mail, this mailbox number of the DID/DNIS number, or the forwarding DN's mailbox number will be sent to voice mail per Program 579, 01.</p> <p>If this VMID code is not set, direct DID/DNIS calls will go to the VM general greeting. DID/DNIS calls that forward from a DN to VM will go to the DN's VMID mailbox.</p> <p>This Voice Mailbox number is added to SMDI packets of direct and forwarded DID\DNIS calls to voice mail as explained above.</p>
12 DID/DNIS Name	<p>Enter DNIS Name. DNIS names can be assigned from eManager (not from programming phones).</p> <p>Possible values: Up to 16 ASCII characters (default = no value)</p>
15 DID/DNIS No. DTMF VMID	<p>Enter the VM mailbox number which should answer calls for this DID/DNIS number.</p> <p>Possible values: Digits 0~9, * and #. For a pause enter Px, where x=0~9 (seconds), up to 10 characters (default = no value).</p> <p>This mailbox number will be sent to voice mail on a DID/DNIS call that rings directly to voice mail and on a direct DID/DNIS call to a DN that forwards to voice mail before it is answered by the DN.</p> <p>If a DID/DNIS call is answered by a station and then transferred to a DN that forwards to voice mail, the mailbox number of the DID/DNIS number or the forwarding DN's mail box number will be sent to voice mail per Program 579, 01.</p> <p>If this VMID code is not set, direct DID/DNIS calls will go to the VM general greeting and DID/DNIS calls that forward from a DN to VM will go to the DN's VMID mailbox.</p> <p>This voice mailbox number is sent to the VM port as DTMF digits after the VM port answers a DID/DNIS call as explained above. These digits are sent to the VM port if the CIX is set for SMDI or DTMF integration in Program 580, 01.</p>

Service

Program Number(s): 311 and 319

These commands assign Direct Inward System Access (DISA) properties.

1. Select > Trunk > Service.
2. Enter Program 311 data.
3. Enter Program 319 data.
4. **Get Default** - restores data to factory defaults.
5. Click **Submit**.

311 DISA Security Code

Prerequisite Program: None

Assigns DISA parameters.

FIELD	DESCRIPTION
01 DISA Enabled	Enable DISA security code. Possible values:Enable or Disable (default)
02 DISA Code	Enter DISA security code. Only required if DISA Security Code is marked as necessary. Possible values:Up to 15 digits (default = no value)
03 Response Timer	Choose the time, in seconds, the CIX will wait before answering an incoming DISA call. Possible values:0~30 (default = 5)
04 Idle Timer	Choose the time, in seconds, the CIX will wait for the first DTMF tones after answering a DISA call. Possible values:0~60 (default = 10)
05 Tie Line Access	Enable this feature to allow DISA callers to access Tie lines when they call into the system. Possible values:Enable or Disable (default)

319 Intercept Treatment

Prerequisite Program: None

This command assigns Intercept positions for Strata CIX Day/Night schedules. Intercept positions are used when the destination of a trunk line call is not determined with DID or DIT.

Get Default - restores data to factory defaults.

Copy -Use this button to copy the entries to another tenant.

FIELD	DESCRIPTION
Tenant Number	Select the Tenant number for which the Intercept Destinations should be assigned. Possible values: 1~8.
01 Day1 Destination Type	Select Destination Type for each. Possible values: None (default), Dialing Digits, or Night Bell
02 Day2 Destination Type	
03 Night Destination Type	
Day1 Destination Day2 Destination Night Destination	Enter Destination for each. Possible values: Up to 32 ASCII characters (default = no value) <ul style="list-style-type: none"> To intercept with a DN use 0~99999 To intercept with a Network DN use 1~32 To intercept with Dial Digits Paging 1~16

315 T1 Trunk Card

Prerequisite Program: 100 [page 4-1](#)

This command assigns T1 Trunk Card Data to the system.

1. Select > Trunk > T1.
2. Enter T1 card location in Shelf/Slot field (xxyy). The selected slot requires an RDTU Card.
 - xx = Cabinet 01~07
 - yy = Slot 01~10 or click the following buttons:
 - **List** – choose from the list of programmed trunks on the right side of the screen.
 - **Copy** – to T1 trunk equipment.
 - **Get Default** - sets all data to factory defaults.
3. Enter values for Program 315.
4. Click **Submit**.

FIELD	DESCRIPTION
T1 Equipment Location	<p>Enter the RDTU equipment location.</p> <p>Enter data as XXYYZZ:</p> <ul style="list-style-type: none"> • XX=cabinet 01~12 • YY=slot 01~10 • ZZ=analog trunk circuit 01~08 <p>or</p> <ul style="list-style-type: none"> • ZZ=T1channel 01~24. <p>Example: If a line should be assigned to an RCOU in cabinet shelf 5, slot 2, circuit 3, enter 050203.</p> <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX100: Base, Exp.01 • CIX200: Base 01, Exp.02 • CIX670: Base 01, Exp 02~07. • CIX1200: Base 01, Exp 02~12 <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX100: Base 01, Exp.05~08 • CIX200: Base/Exp.01~04 • CIX670/1200: Base 01~08 • CIX670/1200: Exp.01~10
01 Coding Format	<p>Select the Coding Format.</p> <p>Possible values:None, PZC, B8ZS (default), or ZCS</p>
02 Frame Format	<p>Select the Frame Format.</p> <p>Possible values:SF Mode or ESF Mode (default)</p>

FIELD	DESCRIPTION
04 Receive PAD	Select the Receive PAD values. Possible values: None, Plus 6 dB, Plus 3 dB, Zero dB (default), Minus 3 dB, Minus 6 dB, Minus 9 dB, Minus 12 dB or Minus 15 dB
05 Send PAD	Select the Send PAD values. Possible values: None, Plus 6 dB, Plus 3 dB, Zero dB (default), Minus 3 dB, Minus 6 dB, Minus 9 dB, Minus 12 dB or Minus 15 dB

DID/DNIS Table View

This screen provides the DID/DNIS Table View on the DID command page or directly from Trunk > DID/DNIS Table View.

Important! To avoid any errors, you must first set the digit length under Trunk > ILG.

To access DID/DNIS table view

Click Trunk > DID/DNIS Table View or use Program 309.

See [Table Views](#) in Chapter 2 for table functionality.

Note You can navigate this table using the ILG and the DID/DNIS which are the first and second drop-downs between the **Previous** and **Next** buttons.

ISDN

The following program enables set up for ISDN-related system settings.

317 ISDN BRI Trunk

Prerequisite Program: 100 [page 4-1](#)

This command assigns ISDN BRI Trunks.

1. Select > Trunk > ISDN BRI.
2. Enter Channel Group number or click one of the following buttons:
 - **List** – choose from a list of programmed trunks on the right side of the screen.
 - **Create** – Assign a new trunk with default settings.
 - **Copy** – Enter a Channel Group number and click **Copy** to make a new trunk assignment with settings copied from the Channel Group you entered.
 - **Delete** – Delete a trunk.
 - **Get Default** - restores data to factory defaults.
3. Enter data.
4. Click **Submit**.

FIELD	DESCRIPTION
Channel Group	Enter the BRI channel Group Number. Possible values: 1~32 (CIX40), 1~32 (CTX100), 1~48 (CTX670 Basic & CIX200), 1~128 (CTX670 Exp), 1~48 (CIX1200 HCTU only), 1-128 (CIX1200 HCTU+HEXAU), 1~220 (CIX1200 HCTU +HEXBU) (default = 0)

FIELD	DESCRIPTION
01 BRI Equipment Number	<p>Enter the BRI equipment number assigned to this channel group.</p> <p>Enter data as XYYZZ:</p> <ul style="list-style-type: none"> • XX=cabinet 01~12 • YY=slot 01~10 • ZZ=analog trunk circuit 01~08 <p>or</p> <ul style="list-style-type: none"> • ZZ=T1channel 01~24. <p>Example: If a line should be assigned to an RBSU in cabinet shelf 5, slot 2, circuit 3, enter 050203.</p> <p>Cabinet numbers: CIX100: Base, Exp.01 CIX200: Base 01, Exp.02 CIX670: Base 01, Exp 02~07. CIX1200: Base 01, Exp 02~12</p> <p>Slot numbers: CIX100: Base 01, Exp.05~08 CIX200: Base/Exp.01~04 CIX670/1200: Base 01~08 CIX670/1200: Exp.01~10</p>
02 Protocol	<p>Select the ISDN protocol. Only Bearer capabilities specified by the protocol can be entered in this field. The Initial value for ISDN Protocol corresponds to information set in the hardware level.</p> <p>Possible values: Nat'l ISDN (default), ETSI, TTC or Nat'l ISDN Nortel</p> <p>National ISDN = North America, ETSI = England and TTC = Japan.</p>
03 Incoming Line Group	<p>ILG assignments must be made for basic ISDNs to process the calls being received.</p> <p>Possible values: 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CTX670 HCTU + HEXAU, 1~220 CTX670 HCTU + HEXBU (default = 0)</p>
04 Outgoing Line Group	<p>OLG assignments must be made for basic ISDNs to process the calls being originated.</p> <p>Possible values: 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>
06 Bearer Svc - Speech	<p>Enable speech capability. See Table 6-1, "Bearer Capability Table" on page 29.</p> <p>Possible values: Enable (default) or Disable</p>

FIELD	DESCRIPTION
07 Bearer Svc - 3.1 KHz Audio	<p>Enable 3.1 KHz audio capability. See Table 6-1, "Bearer Capability Table" on page 29.</p> <p>Possible values: Enable (default) or Disable</p>
08 Bearer Svc - 7 KHz Audio	<p>Enable 7 KHz audio capability. See Table 6-1, "Bearer Capability Table" on page 29.</p> <p>Possible values: Enable or Disable (default)</p>
09 Bearer Svc - Unrestricted 64K	<p>Enable one of the unrestricted capabilities. See Table 6-1, "Bearer Capability Table" on page 29.</p>
10 Bearer Svc - Unrestricted 56K	<p>Possible values: Enable (default) or Disable bearer capabilities for the channel group.</p>
11 Bearer Svc - Unrestricted 2x64K	<p>Possible values: Enable (default) or Disable</p>
12 Outgoing B Ch Select	<p>Select originating B Channel method.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • Explicit – Channel is indicated and no alternative is acceptable. • Preferred – (default) Channel is indicated and any alternative is acceptable. • Any Channel – Channel is indicated and any channel is acceptable.
13 B Ch Selection	<p>Choose Idle B Channel selection method.</p> <p>Possible values: Forward Cyclic, Backward Cyclic, Forward Terminal or Backward Terminal (default = Backward Terminal)</p> <ul style="list-style-type: none"> • Select Forward Cyclic (from lowest number to highest number of B-channel). • Select Backward Cyclic (from highest number to lowest number of B-channel). • Select Forward Terminal for the lowest numbered B-channel. <p>Select Backward Terminal for the oldest number B-channel. (The High-High B-channel selection)</p>
14 Initialize Type	<p>Enter the Service Profile Identifier (SPID) type of initialization.</p> <p>Possible values: User Entry (Auto SPID On), User Entry (Auto SPID Off), Auto SPID or None (default)</p>
15 Initialization Display	<p>Enter the text to be displayed for SPID Initialization.</p> <p>Possible values: Up to 4 ASCII characters (default = User)</p>
16 SPID #1	<p>Enter the SPID value. These fields are required if you selected National ISDN in Protocol. When no data is entered any previously entered information is overwritten.</p> <p>Possible values: Up to 20 ASCII characters (default = No Value)</p>
17 SPID #2	
18 T-Wait Timer	<p>Enable the T-Wait Timer. This field is needed if you selected National ISDN in Protocol above. This timer, used along with the SPID, assigns random initializing SPID times to prevent BRI interfaces from re-initializing at the same time after a reset or power outage.</p> <p>Possible values: Enable or Disable (default)</p>

FIELD	DESCRIPTION
19 Voice Calls	Select the number of simultaneous voice (speech) calls that can exist at the same time on this interface. Possible values: One or Two (default)
20 Subscriber 1 No.	Enter the telephone number for subscriber 1. Telephone number should be consistent with D channel data. If no data is entered in this field any previously programmed information is lost. Possible values: Up to 10 digits (default = no value)
21 Subscriber 2 No.	Enter the telephone number for subscriber number 2. If no data is entered in this field any previously programmed information is lost. Possible values: Up to 10 digits (default = no value)
22 Layer 1 Short Break Tolerant	If layer 1 is interrupted for a short period of time the CIX will ignore it. Possible values: Enable or Disable (default = Enable)
23 TEI assignment	TEI (Terminal Endpoint Identifier) assignment for ISDN CO Trunk. Leave in default. Possible values: TEI FIXED, SINGLE TEI or 3:TWO TEI (default)
24 Malicious Call ID	Not supported by Strata CIX software.
25 BRI Trunk De-active Mode	

Table 6-1 Bearer Capability Table

Bearer Services		Bellcore National ISDN	ETSI	TTC	
Circuit Mode	Speech	X	X	X	
	3.1 KHz	X	X	X	
	7 KHz		X	X	
	Unrestricted Digital Information	64 Kbps	X	X	X
		Rate adaptation from 56 Kbps	X		
		2x64 Kbps		X	X

302, 303 Strata Net (PRI) and Strata Net IP (QSIG)

Prerequisite Program: 100 [page 4-1](#)

The PRI (RPTU, BPTU) and Strata Net IP (BIPU-Q) interface cards need to have a number of assignments for defining operation. These include assigning which channels are available for use and the location of the D-channel or signaling channel. The D-channel exists on the circuit assigned in this command. Also, a number of optional functional capabilities also need to be enabled or disabled.

For BIPU-Q channel groups, parameters 01~04 must be configured; all other parameters should remain at default. All parameters should be configured for ISDN. Many of these are normally set to default.

Note PRI ILGs and OLGs are assigned using “ISDN Call-by-Call” on [page 6-35](#). Therefore, ILG and OLG must be set to **0**.

1. Select Trunk > ISDN PRI.
2. Enter Channel Group number or click one of the following buttons:
 - **List** – choose from the list of programmed trunks on the right side of the screen.
 - **Create** – Assign a new trunk with default settings.
 - **Copy** – Enter a Channel Group number and click **Copy** to make a new trunk assignment with settings copied from the Channel Group entered.
 - **Delete** – Delete a trunk
 - **Get Default** - sets data to factory defaults.
3. Enter data.
4. Click **Submit**.

FIELD	DESCRIPTION
Channel Group	Channel Group Number. Assign the proper PAD levels to channel groups in Programs 107, 108 and 114. These levels are critical for ISDN and Strata Net IP speech levels as well as Quality Of Service. Possible values: 1~32 (CIX40), 1~32 (CTX100), 1~48 (CTX670 Basic & CIX200), 1~128 (CTX670 Exp), 1~48 (CIX1200 HCTU only), 1-128 (CIX1200 HCTU+HEXAU), 1~220 (CIX1200 HCTU +HEXBU) (default = 0)

FIELD	DESCRIPTION
01 Equipment No.	<p>Enter the RPTU, BPTU or BIPU-Q equipment number as xxyyzz.</p> <p>Enter data as XXYYZZ:</p> <ul style="list-style-type: none"> • XX=cabinet 01~12 • YY=slot 01~10 • ZZ=T1channel 01~24 <p>or</p> <ul style="list-style-type: none"> • ZZ=analog trunk circuit 01~32 <p>Example: If a line should be assigned to an RCOU in cabinet shelf 5, slot 2, circuit 3, enter 050203.</p> <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX100: Base, Exp.01 • CIX200: Base 01, Exp.02 • CIX670: Base 01, Exp 02~07 • CIX1200: Base 01, Exp 02~12 <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX100: Base 01, Exp.05~08 • CIX200: Base/Exp.01~04 • CIX670/1200: Base 01~08 • CIX670/1200: Exp.01~10
02 Protocol	<p>The Protocol to be followed defines the type of interface expected based upon the equipment type at the distant end of the connection.</p> <p>In North America, the choices are 1-Bellcore National ISDN; 4-Bellcore National ISDN NT; or 5-QSIG (Strata Net).</p> <p>Use IP for BIUP-Q, IP QSIG (Strata Net).</p> <p>Use QSIG for RPTU/BPTU, PRI QSIG (Strata Net)</p> <p>Possible values: National ISDN, ETSI, TTC, National ISDN Nortel or QSIG (default = None)</p>
03 Incoming Line Group	<p>ISDN and Strata Net need to have trunk group assignments to process the calls being received. If multiple trunk groups are used within the channel group, then Call-by-Call Services must be used.</p> <p>Possible values: 0~32 (CIX100), 0~50 (CIX200, CIX670/CIX1200 Basic), 0~128 (CIX670 Exp, CIX1200 Exp A), 0~220 (CIX1200 Exp B) (default = 0)</p>

FIELD	DESCRIPTION
04 Outgoing Line Group	<p>ISDN and Strata Net needs to have trunk group assignments to process the calls being originated. If multiple trunk groups are used within the channel group, then Call-by-Call Services must be used.</p> <p>Possible values: 1-31 CIX40, 1~64 CTX/CIX/100, 1~96 CTX/CIX 670 BCTU only or BBCU only, 1~264 CTX670 BCTU + BEXU or BBCU + BECU, 1~96 CIX1200 HCTU only, 1~264 CIX1200 HCTU + HEXAU, 1~440 CIX1200 HCTU + HEXBU (default = 0)</p>
05 Trunk ID Type	<p>Identify whether the communication with the PSTN requires an identifier. Select Explicit to require an identifier. Use Implicit for Strata Net IP.</p> <p>Possible values: Implicit (default) or Explicit</p>
06 Trunk ID	<p>An identifier must be used as part of the addressing when an "explicit" identified is used to communicate with the PSTN which channel on which link is used for the given call. This identifier is assigned by the connected PSTN. Use the default for Strata Net.</p> <p>Possible values: 0 ~ 126 (default = 0)</p>
07 D Ch Position	<p>PRI includes a 64-kbps D-channel (for transfer of signal information). Select the channel position to be used for D channel signaling.</p> <p>Note This field is used only when the span interface speed is 1.5M. If the span interface speed is 2M the value is fixed at 16.</p> <p>Possible values: 0 ~ 24 (default = 24)</p>
08~13 Bearer Services:	<p>Enable the Bearer Capabilities allowed for this PRI Trunk channel group.</p> <p>Possible values: Enable (default) or Disable</p>
<ul style="list-style-type: none"> • Speech • 3.1 KHz Audio • 7 KHz Audio • Unrestr. 64K • Unrestr. 56K • Unrestr. 2x64K 	<p>Select the Channel Method (map) to identify the channels.</p> <p>Note In North America, only Channel Number map is used (Channel Number). See Table 6-2.</p> <p>Possible values: Channel Number (default) or Slot Number</p>
14~18 Bearer Services:	<p>The Bearer Capabilities (384k Unrestricted (H0), 1536k Unrestricted (H11), 1920k Unrestricted, Restricted Digital Info, Trunk Video, and Unrestricted Multirate) are not used and should remain disabled.</p> <p>Possible values: Enable or Disable (default)</p>
<ul style="list-style-type: none"> • Unrestr. 384K • Unrestr. 1536K • Unrestr. 1920K • Restr. Digital • Video 	<p>Select the Channel Method (map) to identify the channels.</p> <p>Note In North America only Channel Number B map is used. See Table 6-2.</p> <p>Possible values: Channel Number B (default), Channel Number H, Slot Map B or Slot Map H</p>
19 Bearer Svc Multirate Unrestricted	<p>The Bearer Capabilities 384k Unrestricted (H0), 1536k Unrestricted (H11), 1920k Unrestricted, Restricted Digital Info, Trunk Video and Unrestricted Multirate are not used and should remain disabled. See Table 6-2.</p> <p>Possible values: Enable or Disable (default)</p>

FIELD	DESCRIPTION
20 B Ch Selection Method	<p>The method used for selecting an idle 'B' channel and the reaction if the PSTN indicates the channel is not available needs to be chosen to originate a call from CIX.</p> <p>Possible values:Explicit (default), Preferred or Any Channel</p> <p>Preferred option is recommended unless PSTN needs other choice.</p>
21 B-Ch Selection	<p>The search method for choosing an idle 'B' channel shall also be specified. Backward Terminal is the normal method with the PSTN following a Forward Terminal method.</p> <p>Possible values:Forward Cyclic, Backward Cyclic, Forward Terminal or Backward Terminal (default)</p>
22 T1 Time Slot Pattern	<p>1544 Time Slot Pattern.</p> <p>Possible values:Fixed1 (default), Flexible or Floating</p>
23 E1 Time Slot Pattern	<p>2048 Time Slot Pattern</p> <p>Possible values:Fixed1 (default), Fixed2 or Flexible</p>
24 T-Wait Timer	<p>Specify whether the T-Wait timer is to be enabled or disabled. This field is only valid for Nat'l ISDN. This should not be enabled for PRI, it is only for BRI.</p> <p>Possible values:Enable or Disable (default)</p>
25 RBT on Incoming Call	<p>Enable Ringback Tone when terminating a call. This field is only valid for Nat'l ISDN.</p> <p>Possible values:Enable or Disable (default)</p>
26 Network Mode	<p>Set this span as Master or Slave for Layer 2 of a Strata Net PRI. The opposite value must be set for the node in which this Strata Net PRI terminates. This governs call setup activity and is not related to clock synchronization.</p> <p>Possible values:Master (default) or Slave</p>
27 Negotiation Priority	<p>Sets this span as Side A or Side B for Layer 3 of a Strata Net PRI. The opposite value must be set for the node in which this Strata Net PRI terminates.</p> <p>Possible values:Side A (default) or Side B</p>
28 Layer 1 short break tolerant	<p>If layer 1 is interrupted for less than 90 seconds CIX will keep the current calls open.</p> <p>Possible values:Enable (default) or Disable</p>
29 2-B channel Transfer	<p>Enable this option to allow 2-B channel conference on PRI calls. This allows two PRI channels to be connected in the same Conference or Tandem call.</p> <p>Note This option must also be enabled by PRI provider to allow it to work.</p>
30 Q931 Protocol Timer	<p>Sets the Q931 Protocol Timer. If Long is set, T303 is 8s and T301 is 300s.</p>
31 Send Malicious Call ID	

Table 6-2 Bearer Services Table

Bearer Services		Nat'l ISDN	ETSI	TTC	
Circuit Mode	Speech	X	X	X	
	3.1 KHz Audio	X	X	X	
	7 KHz Audio		X	X	
	Unrestricted digital information	64 kbps	X	X	X
		Rate adaptation from 56 kbps	X		
		2x64		X	X
		384kbp (H0)	X	X	X
		1536kbps (H11)	X	X	X
		1920kbps (H12)		X	
		Multirate (n x 64 kbps)	X		
Restricted digital Information		X	X		
Video		X	X		
Packet Mode	Shelf/Slot/Circuit				

ISDN Call-by-Call

Program Number(s): 324 and 323

Call-by-Call service allows multiple facilities to share a PRI channel group. Traffic requirements of different facilities vary at different times and sharing B channels on a Call-by-Call basis makes it possible to use fewer B channels to perform an equivalent service to the discrete counterpart.

1. Complete the "324 CBC Time Zones" on [page 6-37](#).
2. Select Trunk > ISDN Call by Call.
3. Enter Channel Group number.
4. Enter Program 323 data.
5. Enter Program 324 data.
6. Click **Submit**.

323 CBC Service

Prerequisite Program: 302 [page 6-30](#)

Call-by-Call service allows multiple facilities to share the PRI channel group. Since the traffic requirements of each facility may vary at different times, it becomes possible to use fewer 'B' channels to perform the equivalent services of the discrete counterpart. This sharing the 'B' channels on a call-by-call basis can save the user money. To accomplish CBC services, each facility needs to be defined, its related Line Group assigned and minimum and maximum values for the services provided. These service parameters may be set for three different time zones thus allowing fewer or more services of different types at different times of the day.

FIELD	DESCRIPTION
Channel Group	<p>Enter the Channel Group Number.</p> <p>Possible values: 1~32 (CTX100), 1~ 48 (CTX670 Basic & CIX200), 1~128 (CTX670 Exp), 1~ 48 (CIX1200 HCTU only), 1~128 (CIX1200 HCTU+HEXAU), 1~220 (CIX1200 HCTU +HEXBU) (default = 0)</p>
01 Index	<p>Enter the CBC Service Index or click one of the following buttons:</p> <ul style="list-style-type: none"> • List – View a summary list of programmed trunks. • Create – Assign a new trunk with default settings. • Copy - Copy assignments to another tenant. <p>Possible values: 1~32 (CTX100), 1~48 (CTX670 Basic & CIX200), 1~128 (CTX670 Exp), 1~ 48 (CIX1200 HCTU only), 1~128 (CIX1200 HCTU+HEXAU), 1~220 (CIX1200 HCTU+HEXBU) (default = 0)</p>
02 Type of Service	<p>Select the CBC Service Type.</p> <p>Note To delete CBC set this field to 1: No Data.</p> <p>Possible values: No data (default), POTS, FX, Tie Line (Enbloc), Tie Line (Cut through), Intra LATA Out WATS, Banded Out WATTS, Inter LATA Out WATS or INWATS</p>



FIELD	DESCRIPTION
03 Facility Code	Enter the supplied Facility code value from the PSTN. If no data is entered in this field any previously entered data is deleted. Possible values:00~31(default = no value)
04 Service Parameters	Enter the service parameters supplied from PSTN. If no data is entered in this field any previously entered data is deleted. Possible values:Up to 5 digits (default = no value)
05 Network ID	Enter the Network ID code supplied from PSTN (this field is required if you selected Inter LATA Out WATS type of service). If no data is entered in this field any previously entered data is deleted. Possible values:3 to 4 digits (default = no value)
06 Incoming Line Group	Specify the ILG for this facility. Possible values:1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~50 CIX200, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)
07 Outgoing Line Group	Specify the OLG for this facility. Possible values:1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~50 CIX200, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)
08 Min Calls Zone 1	Select the minimum number of Bch in Time Zone 1. Possible values:0~47 (default = 0)
09 Max Calls Zone 1	Select the maximum number of Bch in Time Zone 1. Possible values:0~47 (default = 47)
10 Min Calls Zone 2	Select the minimum number of Bch in Time Zone 2. Possible values:0~47 (default = 0)
11 Max Calls Zone 2	Select the maximum number of Bch in Time Zone 2. Possible values:0~47 (default = 47)
12 Min Calls Zone 3	Select the minimum number of Bch in Time Zone 3. Possible values:0~47 (default = 0)
13 Max Calls Zone 3	Select the maximum number of Bch in Time Zone 3. Possible values:0~47 (default = 47)

324 CBC Time Zones

This command assigns Call-by-Call Time Zone.

FIELD	DESCRIPTION
Channel Group	Channel Group Number Possible values: 1~32 (CIX40), 1~32 (CTX100), 1~48 (CTX670 Basic & CIX200), 1~128 (CTX670 Exp), 1~ 48 (CIX1200 HCTU only), 1~128 (CIX1200 HCTU+HEXAU), 1~220 (CIX1200 HCTU +HEXBU) (default = 0)
01 Start Zone 1	Enter the Time Zone Starting Time (hhmm).
02 Start Zone 2	Possible values: hh = 00~23, 99 (hour); mm = 00~59, 99 (minutes); 9999 = delete time zone, (default = no value)
03 Start Zone 3	

320 PRI B Channels

Prerequisite Program: 302 [page 6-30](#)

PRI interfaces are purchased on per interface and channel basis. The 'B' channel assignments allow for a flexible activation of channels to match the subscribed services from the PSTN. This command allows you to enable or disable each B channel on selected RPTUs.

1. Select Trunk > PRI B Channels.
2. Enter the Equipment Number or click **List** to see a summary of programmed circuits.
3. Click the B Channel numbers that you want to activate (see Table 6-3 below for T1 and E1 B Channel default settings).
4. **Get Default** - restores data to factory defaults.
5. **Copy** - Copy assignments to another tenant.
6. Click **Submit**.

Table 6-3 B Channel Defaults

B Channel Position Span Interface Speed	01~15	16	17~23	24	25~31
1.5M (T1)	ON	ON	ON	OFF (Dch Pos)	
2.0M (E1)	ON	OFF (Dch Pos)	ON	ON	ON

FIELD	DESCRIPTION
00 PRI Card Equipment Number	<p>Enter the ISDN RPTU equipment number: Enter data as XXYYZZ: XX=cabinet 01~12 YY=slot 01~10 ZZ=PRI channel 01~24 (USA and Canada) ZZ=E1/ETSI PRI channel 01~31 (other countries) Example: If a line should be assigned to an RCOU in cabinet shelf 5, slot 2, circuit 3, enter 050203. Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01 for Base and Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet. • CIX/CTX670: Select 01 for Base and 02~07 respectively for each Expansion cabinet. • CIX1200: Select 01 for Base and 02~12 respectively for each Expansion cabinet. <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01~04 for Base slots and 05~08 for Expansion slots. • CIX/CTX100: Virtual Slot for ACTU Relay = Cabinet 02, Slot 05. • CIX200: Select 01~04 for either cabinet. • CIX/CTX670: Select 01~08 for Base slots and 01~10 for Expansion slots. • CXI1200: Select 01~08 for Base slots and 01~10 for Expansion slots.
01~31 B Channel ID	<p>Assign each 'B' channel as enabled or disabled for each channel on the interface. The assignments must match exactly to the subscription from the PSTN. Possible values: 1 = Enable, 2 = Disable (default = 1)</p>

316 Shared D Channel

Prerequisite Program: 302 [page 6-30](#)

The PRI Interface can be extended to include an additional PRI card to expand the total number of channels to 47 on a channel group. This second PRI may optionally offer a backup D channel.

1. Select Trunk > D Channel.
2. Enter the channel group number (1~128, default = no value), or click the **List** button to view a summary list of programmed channel groups.
3. Enter data.
4. **Copy** - Copy assignment to another tenant.
5. **Get Default** - restores data to factory defaults.
6. Click **Submit**.

FIELD	DESCRIPTION
Channel Group	Channel Group Number. Possible values: 1~32 (CIX40), 1~32 (CTX100), 1~48 (CTX670 Basic & CIX200), 1~128 (CTX670 Exp), 1~48 (CIX1200 HCTU only), 1-128 (CIX1200 HCTU+HEXAU), 1~220 (CIX1200 HCTU +HEXBU) (default = 0)

FIELD	DESCRIPTION
01 PRI Equipment Number	<p>Enter the ISDN RPTU equipment number: Enter data as XXYYZZ:</p> <ul style="list-style-type: none"> • XX=cabinet 01 • YY=03, 05, or 07 • ZZ=Channel 01 is always used to assign RPTU parameters <p>or</p> <ul style="list-style-type: none"> • XX=cabinet 02~10 • YY=01, 03, or 05 • ZZ=Channel 01 is always used to assign RPTU parameters <p>Example: If the RPTU is installed in cabinet shelf 5, slot 3, enter 050301. Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01 for Base and Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet. • CIX/CTX670: Select 01 for Base and 02~07 respectively for each Expansion cabinet. • CIX1200: Select 01 for Base and 02~12 respectively for each Expansion cabinet. <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01~04 for Base slots and 05~08 for Expansion slots. • CIX/CTX100: Virtual Slot for ACTU Relay = Cabinet 02, Slot 05. • CIX200: Select 01~04 for either cabinet. • CIX/CTX670: Select 01~08 for Base slots and 01~10 for Expansion slots. • CIX1200: Select 01~08 for Base slots and 01~10 for Expansion slots.
02 Channel ID	<p>An identifier must be used as part of the addressing to communicate with the PSTN which channel on which link is used on the given call. This identifier is assigned by the connected PSTN. Possible values: 1~ 126 (default = 1)</p>
03 D-Ch Provided	<p>If a backup 'D' Channel is to be used it needs to be enabled. Possible values: D-channel or No D-channel (default)</p>

Calling Number

Program Number(s): 321 and 322

When calls are made using ISDN services the telephone number from which the call originates must be identified to the PSTN.

1. Select Trunk > Calling Number.
2. Enter the OLG Number, or click the **List** button to view a summary list of programmed OLGs.
3. Enter Program 321 data.
4. Enter Program 322 data.
5. Click **Submit**.

321 Calling Number Identification

Prerequisite Program: 306 [page 6-5](#)

The calling number ID is what is defined as the user supplied calling number. This number may be optionally screened by the PSTN to ensure only calls from valid billable telephone numbers are allowed to originate calls.

FIELD	DESCRIPTION
OLG Number	<p>Enter the OLG Number.</p> <p>Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>
01 Default Number	<p>Enter the telephone number to use by default when originating a call. This is the number that the PSTN has registered for billing purposes.</p> <p>Possible values: Up to 10 ASCII characters (default = no value)</p>
02 Number Prefix	<p>Enter the prefix telephone number for which a DID number will be appended to create a user identified telephone number.</p> <p>Possible values: Up to 10 ASCII characters (default = no value)</p> <p>This number may or may not be a billed number but is used for Caller ID at the distant end and could be used for returning your call.</p>
03 Number Verification	<p>Specify whether the number provided should be screened by the PSTN before the call is to proceed.</p> <p>Possible values: Enable or Disable (default)</p>
04 Default Number 2	<p>Enter the second telephone number to use by default when originating a call.</p> <p>Possible values: Up to 10 ASCII characters (default = no value)</p> <p>This is the number that the PSTN has registered for billing purposes. The second number is for BRI only.</p>

322 Called Number Table

Prerequisite Program: 306 [page 6-5](#)

When calls are sent to the PSTN with Calling Number Identification Service (CNIS), the CIX can supply special CNIS information as part of the Setup Message. This program may be used for sending a unique number based on the source directing the call to the Strata CIX PRI.

FIELD	DESCRIPTION
OLG Number	<p>OLG Number.</p> <p>Possible values: 1~32 CTX/CIX/100, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~50 CIX200, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>
01 Source Type	<p>Specify the type of circuit used for outgoing calls: 1- PDN; 2- GCO; 3- Pooled Line.</p> <p>Possible values: Primary DN (0~99999), Group CO (1~128) or Pool Line Group (1~128); (default = no value)</p>
02 Source Number	<p>Specify the number of the source type selected: PDN 0~9999</p> <p>GCO or Pooled Line Possible Values: 0~32 (CIX100), 0~50 (CIX200, CIX670/ CIX1200 Basic), 0~128 (CIX670 Exp, CIX1200 Exp A), 0~220 (CIX1200 Exp B) (default = 0)</p>
03 Special Number Assignments	<p>Specify the number to be sent when calling out from the source (max. seven digits). This number is appended to Program 321 field 02</p> <p>Possible values: Up to 7 digits (default = no value)</p> <p>Note Destination type and destination must be entered before a DID number can be assigned.</p>

Trunk DID/DNIS Setup Wizard

This wizard enables you to assign Direct Inward Dialing / Dialed Number Identification Service (DID/DNIS) to ILGs quickly and easily. The wizard automatically takes you through the different programs and parameters required.

Follow the steps below to start using the DID/DNIS Wizard.

Step 1: Select or Create DID/DNIS ILG

1. Select Trunk > DID/DNIS Setup
2. After reading the instructions on the screen, click **Start**. The Step 1: 304 Select or Create DID/DNIS ILG screen displays.
3. In the 00 DID/DNIS Incoming Line Group (ILG) field, click **Create** or from the drop-down menu, select a DID/DNIS ILG to edit.

Note Only DID/DNIS ILGs appear in the drop-down box. See table below for screen fields and field descriptions.

FIELD	DESCRIPTION
01 ILG Type	Select analog for RDDU or RDTU interface, ISDN for RPTU interface, SIP for SIP trunks.
11 DID/DNIS Digit Length	Select the number of digits (1~7) that compose each DID number for this DID/DNIS ILG. This is the number of DID digits sent from the CO on incoming DID/DNIS. If ANI digits are sent with DID digits, only set this parameter for the quantity of DID digits sent.
02 Line Type	DID lines should always be set as CO type lines.
03 DID/DIT Service	DID lines should always be set as DID service.
04 Std/Strata Net Service	DID lines should always be set for "Standard" service.

4. If you clicked **Create** in Step 3, the Create New DID/DNIS ILG screen displays. Fill in the three fields on the screen and click **Create Now**. The DID/DNIS Number Range Wizard screen displays with the new information.
5. (Optional) Click **DID/DNIS Table View** to view existing DID/DNIS assignments. This table displays assignments for all DID/DNIS ILGs currently programmed in the CIX. For more details, see "[DID/DNIS Table View](#)" on page 6-25.
6. After creating or selecting a DID/DNIS ILG, click **Next**.

Step 2: Create or Delete DID/DNIS Numbers for ILG 2

1. From Step 2: 309 Create or Delete DID/DNIS Numbers for ILG 2 screen click **Create** to create a block of DID/DNIS numbers. The numbers are created in consecutive order.

Create DID/DNIS Numbers screen displays.

- Specify the first number in the DID/DNIS block.

Note The quantity of digits must match the quantity of digits assigned to the selected ILG (refer back to DID/DNIS Digit Length on the previous screen).

- Specify the DID/DNIS Number block size that should be created. This is the quantity of DID/DNIS numbers ordered from the DID/DNIS provider.
- Specify “overwrite existing” or “add to existing” DID/DNIS numbers. If no DID/DNIS numbers exist, add or overwrite is OK or click **Delete** and the delete DID/DNIS number dialog box displays. Specify the first and last DID/DNIS number to delete using the drop-down boxes or check mark Delete all DID/DNIS numbers. Click **Delete Now**. The numbers are deleted.

CAUTION! Overwrite erases all existing DID/DNIS numbers currently programmed for the selected ILG.

2. (Optional) Click **DID/DNIS Table View** to view existing DID/DNIS assignments. For more details see [“DID/DNIS Table View” on page 6-25](#).
3. When finished click **Next**.

Step 3: Assign DID/DNIS Number Audio Destinations for ILG 2

1. From Step 3: 309 Assign DID/DNIS Number Audio Destinations for ILG 2 screen set the DID/DNIS Number range.

Note This step enables you to assign the ringing destinations for all DID/DNIS numbers in the selected ILG. This assignment applies only to voice (audio) calls—not to data calls.

2. Specify the range of DID/DNIS numbers for which ringing assignments should be made. Use the First Number/Last Number drop-down arrows.
3. Fill in the appropriate fields on this screen (see field descriptions below).
4. (Optional) Click **DID/DNIS Table View** to view existing DID/DNIS assignments. For more details, see [“DID/DNIS Table View” on page 6-25](#).
5. After selecting DID/DNIS ringing destination assignments click **Submit** to register them in the CIX database.
6. After creating DID/DNIS ringing destinations click **Next** to assign DID/DNIS Voice Mail ID codes. These VM codes are optional and are only used if DID/DNIS numbers have unique VM boxes to “call forward to” or “ring directly to.”

FIELD	DESCRIPTION
GCO Key Group	<p>If a Group CO Key is selected, all selected DID/DNIS numbers will ring on telephones that have this key.</p> <p>Note This selection will override any GCO or Pool Key Group assignment made in the Program 304, ILG assignments. Day/Day2/Night period assignments do not apply; GCO or Pool Keys will ring in all periods.</p>
Pool Key Group	<p>If a Pool Key Group is selected, all selected DID/DNIS numbers will ring on telephones that have this key.</p> <p>Note This selection will override any GCO or Pool Key Group assignment made in the Program 304, ILG assignments. Day/Day2/Night period assignments do not apply; GCO or Pool Keys will ring in all periods.</p>
Set for Period	<p>DID/DNIS ringing assignments can be unique for each CIX time period: Day, Day2 and Night. Select the period(s) in which the destinations should ring. Then select the destination type.</p>
Destination Type	<p>Select the type of destination:</p> <p>DISA - to call in and receive DISA dial tone.</p> <p>Built-in modem - to call in directly to the CIX modem with eManager.</p> <p>Night Bell - to call in and close the BIOU or ACTU night bell control relay.</p> <p>Dialing Digits - to call in and:</p> <ul style="list-style-type: none"> • Ring PDNs, PhDNs, and/or Pilot Numbers. • Night Ring over External Page - feature access code must be included in the dialing digits. • Access outgoing CO lines, Network Nodes and/or LCR to set up tandem calls - line access codes must be included in the dialing digits. <p>Note When Dialing Digits is the selected Destination Type you must set the Dialing Digit Range below.</p> <p>This selection will override any GCO or Pool Key Group assignment made in this Program or Program 304, ILG assignments.</p>
Set the Dialing Digits Range	<p>Select the method in which dialing digit ringing destinations should be created:</p> <p>Use DNIS as Destination - the destination digits for each DID/DNIS number will be the same as the DID/DNIS number. This option is normally used when the DID/DNIS numbers match the telephone PDNs, PhDNs etc.</p> <p>Start with - enter the number to which the first selected DID/DNIS number should ring. Ringing destinations will be assigned consecutively, starting with this number, to each consecutive DID/DNIS number.</p> <p>Only Use - all selected DID/DNIS numbers will be assigned to the dialing digits entered here.</p> <p>Add to front - these digits will be added in front of each dialing digit number.</p> <p>Add to end - these digits will be added to the end of each dialing digit number.</p>

Step 4: Assign DID/DNIS VMID Codes for ILG

1. From Step 4: Assign DID/DNIS Number VMID Codes for ILG 2 screen, assign VMID codes for all DID/DNIS numbers in the selected ILG. See field descriptions below.
2. (Optional) Click **DID/DNIS Table View** to view existing DID/DNIS assignments. For more details see ["DID/DNIS Table View" on page 6-25](#).
3. After selecting VMID code assignments click **Submit** to register them in the CIX database.

FIELD	DESCRIPTION
Set for DID/DNIS Number Range:	Specify the range of DID/DNIS numbers for which VMID code assignments should be made. Use the First Number/Last Number drop down arrows.
Set for:	The codes can be set independently for DTMF in band or SMDI Voice Mail integration.
DTMF VMID	Select to set VMID code assignments for DTMF voice mail integration.
SMDI VMID	Select to set VMID code assignments for SMDI voice mail integration.
All	Select to set VMID code assignments for DTMF and SMDI voice mail integration. Note DTMF and SMDI Voice Mail integration will not function simultaneously on the CIX.
Set the VMID Range	Select the method in which VMID codes should be created: Use DNIS as VMID - the VMID code for each DID/DNIS number will be the same as the DID/DNIS number. Start with - enter the VMID that should be assigned to the first selected DID/DNIS number. VMID codes will be assigned consecutively, starting with this code, to each consecutive DID/DNIS number. Only Use - all selected DID/DNIS numbers will be assigned to the VMID code entered here. Add to front - these digits will be added in front of each VMID code. Add to end - these digits will be added to the end of each VMID code.

325 Strata Net Full IP Trunk Assignment

Prerequisite Program: 100 [page 4-1](#); 304 on [page 6-1](#); 306 on [page 6-5](#)

This command assigns Strata Net IP trunks.

1. Select Trunk> Full IP Strata Net.
2. Setup the Channel Group by adding values to the remaining fields.
3. Click **Submit**.

FIELD	DESCRIPTION
Channel Group	Enter a channel group number. Possible values: 1~32 (CIX40), 1~32 (CTX100), 1~48 (CTX670 Basic & CIX200), 1~128 (CTX670 Exp), 1~ 48 (CIX1200 HCTU only), 1~128 (CIX1200 HCTU+HEXAU), 1~220 (CIX1200 HCTU+HEXBU)
01 Equipment	Assign the Equipment Number of the LIPU/LIPS MIPU and/or GIPx card. CIX40 GIPx/MIPU card in R1 CHSU40A Cabinet is 01/Slot 06 (0106). CIX40 GIPx/MIPU card in R2 CHSU40A2 Cabinet is 01/Slot 05 (0105). Cabinet numbers: <ul style="list-style-type: none"> • CIX100: Select 01 for Base and Expansion cabinet. • CIX670: Select 01 for Base and 02 ~ 07 respectively for each Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet. • CIX1200: Select 01 for Base and 02 ~ 12 respectively for each Expansion cabinet. Slot numbers: <ul style="list-style-type: none"> • CIX100: Select 01 or 03 for Base slots and 05 or 07 for Expansion slots • CIX200: Select 01 ~ 04 for either cabinet. • CIX670: Select 01, 03, 05 and 07 for Base slots and 01, 03 and 05 for Expansion slots. • CIX1200: Select 01, 03, 05 and 07 for Base slots and 01, 03 and 05 for Expansion slots.
02 LAN Interface Number	Select "1" for an LIPU or "2" for an LIPS. Not used for MIPU/GIPU. Possible values: 1 or 2
03 SIP IP Channels	Enter the number of GIPU, MIPU, LIPU or LIPS channels to be assigned as Strata Net IP resources Possible values: (GIPU) 1 ~ 8, (MIPU16, LIPU, LIPS) 1 ~ 16, (MIPU24) 1 ~ 32



FIELD	DESCRIPTION
04 ILG	<p>ISDN and Strata Net IP need to have trunk group assignments to process the calls being received.</p> <p>If multiple trunk groups are used within the channel group, then Call-by-Call Services must be used.</p> <p>Possible values: 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU</p>
05 OLG	<p>ISDN and Strata Net IP needs to have trunk group assignments to process the calls being originated.</p> <p>If multiple trunk groups are used within the channel group, then Call-by-Call Services must be used.</p> <p>Possible values: 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU</p>
06 Bearer Svc - Speech	<p>The Bearer Capabilities (Speech, 3.1k Audio, 7k Audio, Unrestricted 64k, Unrestricted 56k, and 2x64k Unrestricted) allowed need to be enabled/ disabled for the channel group. Also the type of map to be used to identify the channels. Note: In North America, only Channel Number B map is used (1-Channel Number B).</p> <p>Possible values: Enable (Default) or Disable</p>
07 Bearer Svc - 3.1KHz Audio	<p>The Bearer Capabilities (Speech, 3.1k Audio, 7k Audio, Unrestricted 64k, Unrestricted 56k, and 2x64k Unrestricted) allowed need to be enabled/ disabled for the channel group. Also the type of map to be used to identify the channels. Note: In North America, only Channel Number B map is used (1-Channel Number B).</p> <p>Possible values: Enable (Default) or Disable</p>
08 RBT on Incoming Call	<p>Enable Ringback Tone to be returned on terminating the call.</p> <p>Possible values: Enable (Default) or Disable</p>
09 Q931 Protocol Timer	<p>Set Q931 Protocol Timer. If Long is set, T303 is 8s and T301 is 300s.</p> <p>Possible values: Normal (Default) or Long</p>

326 SIP Trunk Assignment

Prerequisite Program: 100; 304; 309; 306

This command assigns SIP trunks.

1. Select IP-Telephony > SIP Trunking - Channel Group Setting tab.
2. Setup the SIP Channel Group by adding values to the remaining fields.
3. **List** - View a list of the programmed SIP Trunk Channel Groups.
4. **Get Default** - restores data to factory defaults.
5. Click **Submit**.

FIELD	DESCRIPTION
00 SIP Trunk Channel Group	<p>Enter a channel group number.</p> <p>Possible values: 1~32 (CIX40), 1~32 (CTX100), 1~48 (CTX670 Basic & CIX200), 1~128 (CTX670 Exp), 1~ 48 (CIX1200 HCTU only), 1~128 (CIX1200 HCTU+HEXAU), 1~220 (CIX1200 HCTU+HEXBU)</p>
01 Equipment	<p>Assign the Equipment Number of the LIPU/LIPS MIPU and/or GIPx card.</p> <p>CIX40 GIPx/MIPU card in R1 CHSU40A Cabinet is 01/Slot 06 (0106). CIX40 GIPx/MIPU card in R2 CHSU40A2 Cabinet is 01/Slot 05 (0105). Cabinet numbers:</p> <ul style="list-style-type: none"> • CTX100: Select 01 for Base and Expansion cabinet. • CTX670: Select 01 for Base and 02 ~ 07 respectively for each Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet. • CIX1200: Select 01 for Base and 02 ~ 12 respectively for each Expansion cabinet. <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX100: Select 01 or 03 for Base slots and 05 or 07 for Expansion slots • CIX200: Select 01 ~ 04 for either cabinet. • CIX670: Select 01, 03, 05 and 07 for Base slots and 01, 03 and 05 for Expansion slots. • CIX1200: Select 01, 03, 05 and 07 for Base slots and 01, 03 and 05 for Expansion slots.
02 LAN Interface Number	<p>There is only one LAN interface on an MIPU/GIPU.</p> <p>Possible values: 1</p>
03 SIP Trunk Channels	<p>Enter the number of GIPU, MIPU, LIPU or LIPS channels to be assigned as SIP trunk resources</p> <p>Possible values: (GIPU) 1 ~ 8, (MIPU16, LIPU, LIPS) 1 ~ 16, (MIPU24) 1 ~ 32</p>
04 RBT on Incoming Call	<p>Enable ringback tone to be returned to the caller.</p> <p>Possible values: Enable (Default) or Disable</p>

327 SIP Trunk Service Kind Assignment

Prerequisite Program: 100; 304; 309; 306; 326

This tab is where the SIP trunk provider is defined. There may be several SIP trunk providers per channel Group.

1. Select IP-Telephony > SIP Trunking - Service Definition tab.
2. Setup the SIP trunk service kind table index by adding values to the remaining fields.
3. Click **Submit**.

FIELD	DESCRIPTION
00 SIP Trunk Service Kind Table Index	Create a SIP Trunk Service Kind Table Index by selecting. Possible values: 1~32 (CIX40), 1~32 (CIX100), 1~48 (CIX200, CIX670 Basic & CIX1200 Basic), 1~128 (CIX200, CIX670 Exp, CIX1200 Exp)
01 Registration Mode	Only Client or None can be assigned.
02 ILG	The incoming line group number for this service. Note that the ILG number can only be assigned to one service. Possible values: 1~32 (CIX40), 1~32 (CTX/CIX/100) 1~50 (CIX200) 1~50 (CTX/CIX 670 BCTU only or BBCU only) 1~128 (CTX/CIX670 BCTU + BEXU or BBCU + BECU) 1~50 (CIX1200 HCTU only) 1~128 (CIX1200 HCTU + HEXAU) 1~220 (CIX1200 HCTU + HEXBU)
03 OLG	The outgoing line group number for this service. Note that the OLG number can only be assigned to one service. Possible values: 1~32 (CIX40) 1~32 (CTX/CIX/100) 1~50 (CIX200) 1~50 (CTX/CIX 670 BCTU only or BBCU only) 1~128 (CTX/CIX670 BCTU + BEXU or BBCU + BECU) 1~50 (CIX1200 HCTU only) 1~128 (CIX1200 HCTU + HEXAU) 1~220 (CIX1200 HCTU + HEXBU)
04 Effective Channel Number	Sets the number of channels that will be used with this service. Setting this value to 0 will delete the SIP Trunk service index. Possible values: 0~96 (CIX40) 0~96 (CTX/CIX/100) 0~176 (CIX200) 0~176 (CTX/CIX 670 BCTU only or BBCU only) 0~264 (CTX/CIX670 BCTU + BEXU or BBCU + BECU) 1~176 (CIX1200 HCTU only) 1~264 (CIX1200 HCTU + HEXAU) 1~440 (CIX1200 HCTU + HEXBU)
05 Domain Name	Domain name for the service provider. Maximum of 64 characters.
06 SIP Server	SIP Server Domain Name or IP address. (Used for registration and outbound proxy).
07 Primary Voice Packet Configuration	Primary Voice packet configuration table (Prog 152) index.
08 Secondary Voice Packet Configuration	Secondary Voice packet configuration table (Prog 152) index.
09 Registration Period	After successful registration, re-registration will occur after this many seconds. Possible values: 700~99999

FIELD	DESCRIPTION
10 TimerB	SIP Timer B value.
11 Recovery Timer	This is how many seconds to wait after an invite registration failure before retrying. Possible values:0~1440
12 Network Transfer	Enable to use REFER to transfer calls on the SIP trunk, if supported. Otherwise, transfer loops through the CIX
13 User Agent Header	Enable to send software version in User Agent Header. Possible values:Enable or Disable (Default)
14 Server Header	Enable to send software version in Server Header Possible values:Enable or Disable (Default)
15 Protocol Option	SIP Refer, Notify, and Replaces headers cannot be accepted. (In the future this can be enabled to allow those messages to be accepted).
16 Session Timer	Not used. Range is 90~99999
17 Primary Audio Codec	First choice for Audio Codec. Possible values:G.711u (Default), G711a, G729a
18 Secondary Audio Codec	Second choice for Audio Codec. Possible values:G.711u (Default), G711a, G729a
19 DTMF Transmission Method	For DTMF digits, you can choose to use INBAND or RFC2833 (Default).
20 RTCP Support	Enable to allow RTCP packets to be sent (this helps to detect QoS errors during calls). Possible values:Enable (Default) or Disable
21 T.38 Support	In the future, this can be enabled to allow FAX by T.38.
22 SIP Server Caches	The maximum number of DNS entries that will be cached.
23 Diffserv for Media	Not supported in this release-see Prog 150. Enable Diffserv (Differentiated Services) priority control if voice packets on an IP (internal) Network should be prioritized with priority tagging. Higher priority, time-critical BIPU/IPT voice traffic can have preferential treatment when other traffic is running at best effort. If Diffserv is enabled you must set field 24 TOS Field Type for Media as DSCP or TOS. Note Diffserv is usually not a standard feature with most ISPs. Contact your ISP to make arrangements to provide Diffserv or this feature will not work correctly. Possible values:Enable or Disable (Default)

FIELD	DESCRIPTION
24 TOS Field Type for Media	<p>Not supported in this release - see Prog 150. MIPU global settings are used. If field 23 Diffserv is enabled, select DSCP (Differentiated Services Code Point format) or TOS (Type Of Service format). If TOS is selected, set the packet priority level in field 25 TOS Precedence Type for Media; if DSCP is selected, set the packet priority level in field 26 DSCP for Media.</p> <p>Possible values:TOS or DSCP (Default)</p>
25 TOS Precedence Type for Media	<p>Not supported in this release - see Prog 150. If TOS is selected in TB24 TOS Field Type for Media, select a packet priority level - where Critical/ESP provides the highest and Routine provides the lowest priority. If TOS is selected in field 24, make selections in TOS Delay, TOS Throughput Delay, and TOS Reliability Type.</p> <p>Possible values:Routine, Priority, Immediate, Flash, Flash Overd, or Critical/ESP (Default)</p>
TOS Delay Type for Media	<p>Not supported in this release - see Prog 150. If TOS is selected in field 24 TOS Field Type for Media, select 'Normal' for most cases</p> <p>Possible values:Normal (Default) or Low</p>
TOS Throughput Type for Media	<p>Not supported in this release - see Prog 150. If TOS is selected in field 24 TOS Field Type for Media, select 'Normal' for most cases</p> <p>Possible values:Normal (Default) or High</p>
TOS Reliability Type for Media	<p>Not supported in this release - see Prog 150. If TOS is selected in field 24 TOS Field Type for Media, select 'Normal' for most cases</p> <p>Possible values:Normal (Default) or High</p>
26 DSCP for Media	<p>Not supported in this release - see Prog 150. If DSCP is selected in field 24 TOS Field Type for Media, select a priority level</p> <p>Possible values:0 ~ 63 (Default = 0)</p>
27 Diffserv for Signaling	<p>Not supported in this release - see Prog 150. Enable Diffserv (Differentiated Services) priority control if voice packets on an IP (internal) Network should be prioritized with priority tagging. Higher priority, time-critical BIPU/IPT voice traffic can have preferential treatment when other traffic is running at best effort. If Diffserv is enabled you must set field 28 TOS Field Type for Signaling as DSCP or TOS.</p> <p>Note Diffserv is usually not a standard feature with most ISPs; contact your ISP to make arrangements to provide Diffserv or this feature will not work correctly.</p> <p>Possible values:Enable or Disable (Default)</p>
28 TOS Field Type for Signaling	<p>Not supported in this release - see Prog 150. If field 27 Diffserv for Signaling is enabled, select DSCP (Differentiated Services Code Point Format) or TOS (Type Of Service format). If TOS is selected, set the packet priority level in field 25 TOS Precedence Type for Media. If DSCP is selected, set the packet priority level in field 26 DSCP for Media.</p> <p>Possible values:TOS or DSCP (Default)</p>

FIELD	DESCRIPTION
29 TOS Precedence for Signaling	<p>Not supported in this release - see Prog 150. If TOS is selected in field 28 TOS Field Type for Signaling select a packet priority level - where Critical/ESP provides the highest and Routine provides the lowest priority. If TOS is selected in field 28, make selections in TOS Delay, TOS Throughput Delay, and TOS Reliability Type.</p> <p>Possible values: Routine, Priority, Immediate, Flash, Flash Overd, or Critical/ESP (Default)</p>
TOS Delay Type for Signaling	<p>Not supported in this release - see Prog 150. If TOS is selected in field 28 TOS Field Type for Signaling, select Normal for most cases</p> <p>Possible values: Normal (Default) or Low</p>
TOS Throughput Type for Signaling	<p>Not supported in this release - see Prog 150. If TOS is selected in field 28 TOS Field Type for Signaling, select Normal for most cases</p> <p>Possible values: Normal (Default) or High</p>
TOS Reliability Type for Signaling	<p>Not supported in this release - see Prog 150. If TOS is selected in field 28 TOS Field Type for Signaling, select Normal for most cases</p> <p>Possible values: Normal (Default) or High</p>
30 DSCP for Signaling	<p>Not supported in this release - see Prog 150. If DSCP is selected in field 28 TOS Field Type for Signaling, select a priority level</p> <p>Possible values: 0 ~ 63 (Default = 0)</p>
31 Call Release On QoS Failure	<p>Enable to have calls disconnected when poor QoS is detected.</p> <p>Possible values: Enable or Disable (Default)</p>
32 QoS Failure Notification Timer	<p>Interval to log QoS errors</p>
33 SIP Trunk Service Recovery Time	<p>After registration of a SIP trunk fails (e.g., internet connection is down), registration will be attempted again after this many seconds</p> <p>Possible values: 2~3600 (Default = 60)</p>
34 SIP Trunk Options Interval	<p>This field defines the interval by which option messages are sent for the purpose of verifying that the SIP trunk is still active and available.</p> <p>Possible values: 0~3600</p>
35 SIP Trunk Message Option	<p>This field determines whether the MIPU's IP address or the Domain name will be set to the host portion of the To: header. Ex. (sip:333@65.214.160.251) or (sip:333@toshiba.globalipcom.com)</p>
36 SIP Trunk Message to Header Option	<p>This field determines the value after the @ symbol of the To: field of the SIP invite message. This value can either be the fully qualified domain name or the SIP server IP Address.</p>
37 SIP Trunk Register Message From Header Option	<p>This field determines the value after the @ symbol of the From: field of the SIP register message. This value can either be the fully qualified domain name or the SIP server IP Address or the MIPU IP address.</p>

Trunks

Trunk DID/DNIS Setup Wizard

FIELD	DESCRIPTION
38 SIP Trunk Register Message to Header Option	This field determines the value after the @ symbol of the To: field of the SIP register message. This value can either be the fully qualified domain name or the SIP server IP Address.
39 Assert Identity	This field determines whether Assert Identity is used or not. This field is used by the service provider for anonymous caller ID. Possible values: Enable or Disable (Default)

328 SIP Trunk Service Assignment

Prerequisite Program: 100; 304; 309; 306; 326, 327

This tab must be completed before entries can be made for the URI tab. If this tab is not completed, entries attempted in the URI tab will not be saved.

1. Select IP-Telephony > SIP Trunking, Service Assignment tab.

Important! After URI entries are made in the next tab (URI), changes to this program (Prog 328), will DELETE all the URIs programmed. Once this is set, do not change it.

2. Make the required entries for Channel Groups.
3. Click **Set**.

FIELD	DESCRIPTION
00 SIP Trunk Channel Group	Select a Channel Group Number: Possible values: 1~32 (CIX40), 1~32 (CTX100), 1~48 (CTX670 Basic & CIX200), 1~128 (CTX670 Exp), 1~ 48 (CIX1200 HCTU only), 1~128 (CIX1200 HCTU+HEXAU), 1~220 (CIX1200 HCTU +HEXBU), (default = no value)
02 Service Index	Assign a SIP Trunk Service by selecting its SIP Trunk Service Kind (PRG327) Table Index. Possible values: 1~32 (CIX40), 1~32 (CIX100), 1~48 (CIX200/CIX/670 Basic/ CIX1200 Basic), 1~128 (CIX200/CIX/670 Exp/CIX1200 Exp).

329 SIP URI Assignment

Prerequisite Program: 100; 304; 309; 306; 326, 327, 328

The SIP URI is the telephone number provided by the SIP service provider. When the number is dialed from the outside, the provider sends a SIP INVITE just as if it were a call to a SIP station.

1. Select IP-Telephony > SIP Trunking, URI tab.
2. Enter the information required as specified in the table below.
3. Click the action to perform: **Add**, **Modify**, or **Remove**.

FIELD	DESCRIPTION
00 SIP URI Trunk Service Index	The Prog 327 index for the service kind associated to this SIP URI. Possible values: 1~32 (CIX40), 1~32 (CIX100), 1~48 (CIX200/CIX/670 Basic/CIX1200 Basic), 1~128 (CIX/670 Exp./CIX1200 Exp)
01 URI Index	The Index into the table of URIs There are a maximum of 160 per card. Possible values: 1~72 (CIX40), 1~72 (CIX100), 1~160 (CIX200/CIX/670 Basic/CIX1200 Basic), 1~160 (CIX/670 Exp./CIX1200 Exp).
02 SIP URI	The user portion of the SIP URI. The host portion is assigned by Prog 327 field 5.
03 SIP URI User Name	The user name used for authentication of this URI.
04 SIP URI Password	The password used for authentication of this URI
05 SIP URI Channel Group	0 (recommended) means the channel group is picked out from Prog 328. Otherwise, this SIP URI is registered through the specifically set channel group.
06 SIP URI Attribution	MAIN specifies that this URI will be registered with the service provider. SUB indicates that this URI will not be registered.

This chapter provides programming information for Strata CIX Attendants.

404 Attendant Group Assignment

Prerequisite Program: None

This program establishes Attendant Groups, distribution methods and alternate destinations.

1. Select Station > Attendant Group. The Attendant Group Assignment screen displays.
2. Select the Attendant Group Member or click one of the following buttons:
 - **List** – to view data list window.
 - **Copy** – to Attendant group numbers.
3. Enter Program 404 data.
4. **Get Default** - sets all data to factory defaults.
5. Click **Submit**.

FIELD	DESCRIPTION
00 Attendant Group Member	Select the Attendant Group Member Number. Possible values:1 (CIX100, CIX200, CIX670, CIX1200) (default = no value)
01 Call Distribution Method	Select the Call Distribution Method for attendant console. Possible values:Most Idle First (default), or Broadcast
02 Alternate Destination	Enter the Alternate Attendant Destination (DN, Network DN or Group Pilot Number). If no data is entered in this field, any previous entries are overwritten. Possible values:Up to 32 digits (default = no value)
03 Overflow Time	Select the Attendant Overflow Time in minutes. Possible values:0~180 (default = 30)
04 Group Overflow Destination	Enter the overflow destination for this attendant group. If no data is entered in this field any previous entries are overwritten. Possible values:Up to 32 digits (default = no value)
05 VMID Code SMDI	Enter the Attendant's Voice Mail ID code. If no data is entered in this field any previous entries are overwritten. Possible values:Up to 10 digits (default = no value)

FIELD	DESCRIPTION
<p>07 ICI1~16 ICI10</p> <ul style="list-style-type: none"> • ILG1 • ILG2 • ILG3 • ILG4 	<p>For 07 ICI1~16 ICI10, select ILG Assignments for ICI Groups.</p> <ul style="list-style-type: none"> • Assign the 1st ILG to ICI Groups 1~10. • Assign the 2nd ILG to ICI Groups 1~10. • Assign the 3rd ILG to ICI Groups 1~10. • Assign the 4th ILG to ICI Groups 1~10. <p>Note Each ILG can only be assigned once in any of the ICI Groups.</p> <p>Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>

400 Emergency Call Destination Assignment

Prerequisite Program: None

This command assigns Emergency Call destinations to Emergency Call groups. There is one group for each Day mode (Day1, Day2 and Night).

1. Select Station > Emergency Call.
2. Enter Program 400 data or click one of the following buttons:
 - **Insert** – assigns the destination for the selected index.
 - **Modify** – assigns a new destination to the selected index.
 - **Remove** – removes the assigned destination from the table.
 - **Get Default** - sets all data to factory defaults.
3. Click **Submit**.

FIELD	DESCRIPTION
01 Day/Night Mode	Select the time of day mode (Day1,Day2,Night) from the table below. Possible values:Day1, Day2, Night (default = no value)
02 Called Number Index	Emergency call group number (1~4). The system will hunt through these in numerical order to find an available emergency destination. Possible values:1~4 (default = no value)
03 Emergency Call Destination	Enter the DN, pilot number or private number to be associated with the called number index. Possible values:Up to 32 ASCII characters (default = no value)
04 Action	Choose whether you are replacing an existing emergency number index or inserting one in the list. if inserting, the new entry will assume the specified index. The remaining indexes will be increased by one and the last one, 4, will be deleted. Possible values: Modify or Insert (default = Modify)

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IP Telephone Setup

This chapter contains information on system setup for IP telephones, IP telephone programming, IP interface card and IP software updates.

CIX IP Telephone Programming

The following is an outline of the Basic CIX system IP setup. This process covers the basic IP telephone programming. Each network is unique and may require additional special assignments.

Card Assignments

System > Card Assignment— Assign the xIPU IP card; refer to the program guidelines for appropriate slot assignments.

MIPU, GIPU, and LIPU Configuration

IP-Telephony > L/M/G IPU Configuration — Assign the xIPU IP Address, subnet mask and gateway.

Cabinet/Slot	Select the GIPU/MIPU/LIPU card from the list
field 01	Enter the GIPU/MIPU/LIPU IP Address (default = 192.168.254.200)
field 02	Enter the GIPU/MIPU/LIPU Subnet Address
field 03	Enter the GIPU/MIPU/LIPU Default Gateway Address

BIPU Configuration

IP-Telephony > BIPU Configuration — Assign the BIPU-M IP Address, subnet mask and gateway.

Station Programming

Assigning PDNs to IP telephones using IP resources — This can be completed by using the Network eManager PDN Range wizard or manually created, **IP-Telephony > IPT Data** — Program 200 (station basic).

- IP telephones assigned to xIPU-M cards are programmed in the same manner as DKTs. Any programmed (FB) used to program a DKT can be used to program an IP.
- Continue station programming in the same manner as a DKT set, including:
 - DKT Parameters
 - Key Strips

IP Telephone Data

IP-Telephony > IPT Data (250 IPT Data Assignment)

field 00	Prime DN - Select the station from the list on the right
field 01	Station ID (will display automatically) - This will be the same as the PDN assigned in the Station Data program.
field 02	Station IP Address type. Contact the network administrator for the type. ANY = DHCP, FIX = Static
field 03	Station IP Address If FIXED enter the IP address If ANY make no entry. (After the IP telephone is configured this will populate.)
field 04	Auto Assign Station ID - Set preference
field 05	Set Station Termination Authentication Mode See note below
field 06	Station MAC Address See note below
field 07	Voice Packet Table - default = 1
field 08	Audio Codec - Set to: G.711 or G.729 Note: SoftIPT 2.2 can only support G.711. SoftIPT 3.x supports both G.711 and G.729
field 09	Display Software Version Number of the IP telephone - This will display automatically if the IP telephone is connected.

Note When using Station Terminal Authentication Mode it is recommended that the IP telephone be plugged in and configured prior to executing this program. If the IP telephone is not configured and present on the network the MAC Address must be entered manually. If the IP telephone is configured and present on the network the MAC Address will be entered automatically.

VLAN Setup

The following steps setup the VLAN tagging options and parameters.

Using the VLAN Wizard

The wizard sets the VLAN parameters on the selected IP telephones. When complete, the MIPU, GIPU, or LIPU/LIPS must be configured for VLAN.

In Network eManager select **IP-Telephony > IPT VLAN Setup**.

VLAN Range Options

The IP telephones to be setup can be selected by Primary Directory Number (PDN) or by the VLAN Identification (VID) of either the PC Port or Phone Port.

- **Enter PDN Range** - Click on the **Select** button. This shows the list of IP PDNs - select one or more IP telephones from the list.
- **Enter VID of target IP telephones** - enter either the IP telephone PC Port VID or Phone VID. This will select every IP telephone with the specified port VID. If both PC Port and Phone Port VID is set to Any, all IP telephones will be selected.

VLAN Setting Options

These options will set the selected IP telephones the parameters specified below or Resets the IP telephones selected above to the default values.

- **Set VLAN settings of IP telephones** - Set the IP telephones selected above to the parameters specified below.
- **Reset VLAN setting of IP telephones** - Reset the IP telephones selected above to the default value (VLAN tagging disabled, VID = 1 for the phone port and the PC port).

VLAN Parameters

These options will set the selected IP telephones the parameters specified below or Resets the IP telephones selected above to the default values.

- **VLAN Feature** - Enable or disable VLAN tagging for the selected IP telephones.
- **PC port type** - Set the PC port on the selected IP telephones to:
 - Trunk - the port is connected to a VLAN enabled device or
 - Access - the port is connected to a non-compliant device, a device that does not support VLAN tagging.

Enable VLAN on the xIPU

This program sets the VLAN parameters on the GIPU/MIPU/LIPU cards. VLAN is enabled or disabled on a per card basis. Refer to [“161 LIPU/MIPU/GIPU Configuration”](#) on [Page 8-13](#).

Setup the Packet Prioritization (IEEE802.1P) and VLAN ID (IEEE802.1Q).

CIX IP Telephone Programming Guidelines

Use the following guidelines to program your CIX IP Telephone.

Basic CIX IP Setup

1. Select System > Card Assignment (Program 100) to set the xIPU cards in the appropriate slots.

CIX100 slots 1~8; CIX670/CIX1200 Base slots 1~8; and CIX670/CIX1200 Expansion slots 1~6

Note If the CIX is initialized (Program 900-01) after the BIPU-M is installed, the CIX assigns the BIPU-M to the appropriate card slots automatically.

2. Select IP Telephony > BIPU Configuration (Program 151) to set BIPU-M IP address (check with the network administrator for IP address, subnet mask, etc.). The BIPU version number will be displayed when the BIPU is operating and is connected on the same network as the Network eManager PC.

Note If the CIX is initialized (Program 900-01) after the BIPU-M is installed, the CIX assigns the BIPU-M default parameters as shown in [Table 1-6](#) on [page 1-6](#).

3. Select Station > Station Assignments, Basic tab, to assign PDNs to IP telephones (BIPU equipment numbers) if this was not done during CIX system initialization. The PDN Range wizard can also be used to assign PDNs to the BIPU channels.
4. Select IP-Telephony > IPT Data (Program 250). Set field 05 Station Terminal Authentication Mode to apply if the PDN assigned to a particular IP Telephone should be linked (reserved for) to that telephone's MAC address. Each telephone has a unique hard-coded MAC address. This prevents other IP telephones from using the reserved PDN when an IP telephone is moved.

Note If IP telephone Authentication is applied/not applied in Program 250-05 it will override the IP telephone Authentication setting in Program 150-02.

5. If multiple CIX systems with BIPU-Ms are connected to the IP network Select IP-Telephony > System IP Data (Program 150), and set 09 IP CTX Identifier.

Enter a CIX Node identifier if more than one CIX Node is on the IP Network. This can be the same as the Strata Net Network Node ID used for this system if it is in a CIX Strata Net Network - but the two IDs are not related in software logic.

This ID must match the node number programmed in the IP telephone using **369Hold-2**, FB06.

6. Run all other CIX programs necessary to customize the features required for each IP telephone. All programs used to program digital telephones also apply to IP telephones (Program 205 keystrips, 213 Add-on-Modules, Program 204 DKT Parameters, etc.).

IP Telephone Installation and Network Connection Setup

1. Install the IP telephones using instructions in the IP telephone chapter of the CIX and MAS Installation and Maintenance Manual.
2. From each IP Telephone, set its network connection parameters using the **369Hold** program mode (refer to the instructions that follow).

Notes

- Some IP telephones parameters must be set from each individual IP telephone using **369Hold** programming. These parameters remain stored in the IP telephone even if the telephone is unplugged. This allows the telephone to be moved to different locations without reprogramming.
- Other IP telephone parameters must be set in IP-Telephony > IPT Data (Program 250). Initially, the parameters are normally kept at defaults.

150 System IP Data

Prerequisite Program: Assign the MIPU, GIPU, LIPU and BIPU cards in Program 100. Create Stations using Programs 200 and 260. Set IP telephone data assignments with Program 250.

This command assigns system-wide IP parameters.

1. Select IP-Telephony > System IP Data.
2. Enter values in the appropriate fields.
3. **Get Default** sets all values to factory defaults.
4. Click **Submit**.

FIELD	DESCRIPTION
01 Automatic Assignment of Station ID	<p>Enable Automatic Assignment of Station ID when the IP telephone has no station ID. In program 250, field 04 is the same parameter and is per terminal.</p> <p>When IP telephone searches to connect a CIX with no station ID, the CIX looks for a PDN which is set with this parameter as "automatic," and sends the PDN to the IP telephone and sets it in the setting of IP telephone.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
02 Terminal Authentication	<p>Enable this parameter if you want to set the PDN of an IP telephone.</p> <p>When enable is set, terminal authentication by MAC address of IP telephone is valid. If another IP telephone which has the same PDN is connected to the network, the CIX rejects the registration of this IP telephone because the MAC address of IP telephone is different.</p> <p>When disable is set, you can move the PDN from an IP telephone to another IP telephone and another IP telephone can be connected to the CIX.</p> <p>In program 250, field 05 is the same parameter for the terminal.</p> <p>Possible values: Enable or Disable (default = Disable)</p>
03 Diffserv	<p>Enable Diffserv (Differentiated Services) priority control if voice packets on an IP (internal) network should be prioritized with priority tagging. Higher priority, time-critical BIPU/IPT voice traffic can have preferential treatment when other traffic is running at best effort. If Diffserv is enabled you must set the 04 TOS Field Type as DSCP or TOS. Note: Diffserv is usually not a standard feature with most ISPs. Contact your ISP to make arrangements to provide Diffserv or this feature will not work correctly.</p> <p>Possible values: Enable or Disable (Default)</p>
04 TOS Field Type	<p>If 03 Diffserv is enabled, select DSCP (Differentiated Services Code Point format) or TOS (Type Of Service format).</p> <p>Then, if TOS is selected, set the packet priority level in 05 TOS Precedence Type.</p> <p>Then, if DSCP is selected, set the packet priority level in 06 DSCP.</p> <p>Possible values: TOS or DSCP (Default)</p>

FIELD	DESCRIPTION
05 TOS Precedence Type	<p>If TOS is selected in 04 TOS Field Type select a packet priority level - where Critical/ESP provides the highest and Routine provides the lowest priority.</p> <p>If TOS is selected in 04 TOS Field Type make selections in TOS Delay, TOS Throughput Delay, and TOS Reliability Type.</p> <p>Possible values: Routine, Priority, Immediate, Flash, Flash Override, or Critical/ESP (Default)</p>
TOS Delay Type	<p>If TOS is selected in 04 TOS Field Type select Normal for most cases</p> <p>Possible values: Normal (Default) or Low</p>
TOS Throughput Type	<p>If TOS is selected in 04 TOS Field Type select Normal for most cases</p> <p>Possible values: Normal (Default) or High</p>
TOS Reliability Type	<p>If TOS is selected in 04 TOS Field Type select Normal for most cases</p> <p>Possible values: Normal (Default) or High</p>
06 DSCP	<p>If DSCP is selected in 04 TOS Field Type select a priority level from 0~63.</p> <p>Possible values: 0~63 (Default = 0)</p>
07 IEEE802.1p	<p>Enable IEEE802.1p priority control if voice packets on an Ethernet LAN should be prioritized with priority tagging. Higher priority, time-critical BIUP\IPT voice traffic can have preferential treatment when other traffic is running at best effort. If you enable IEEE802.1p, select which priority level to use (Voice or Best Effort) in 08 IEEE802.1p Configuration on this screen. All Ethernet devices on the LAN (routers, switches, etc., must support IEEE802.1p for this feature to work correctly.</p> <p>Possible values: Enable or Disable (Default)</p>
08 IEEE802.1p Configuration	<p>If 07 IEEE802.1p is enabled, select Voice priority for BIUP\IPT voice packets to be tagged with the highest priority level.</p> <p>Possible values: Best Effort or Voice (Default)</p>
09 IP-CTX Identifier	<p>Enter a CIX node ID if more than one CIX node is on the IP network. This can be the same as the Strata Net node ID used for this system if it is in a Strata Net network - but the two IDs are not related in software logic. This ID must match the node 'number' programmed in the IP telephone.</p> <p>Possible values: Up to 5 ASCII characters</p>
10 Tail Length of Echo Canceller	<p>Enter 16ms if any IP telephone is set for a G729A codec (Prog 250-08) or if the Strata Net IP network is set for G729A codecs (Prog 672-06). If all codecs are G711, then 16ms or 32ms can be used - 32ms may reduce echo on a network that only utilizes G711 codecs. Never set this parameter to 64ms.</p> <p>Note Setting G729A codec and 32 msec will reduce the number of channels available from 16 to 12 or 32 to 24.</p> <p>Possible values: 16 (Default), 32 or 64MS</p>
11 Gain Control of IPT and BIPU	<p>Set the Voice Quality Mode to control gain of IPTs and BIPUs.</p> <p>Possible values: High (Default), Middle or Low</p>

IP Telephone Programming

IP Telephone Installation and Network Connection Setup

FIELD	DESCRIPTION
12 System IP CED Control	<p>Whether the echo canceller is stopped by the detection of Cancel Error Detection (CED) tone (2100Hz).</p> <p>Possible values: Enable (Default) or Disable</p>
13 System IP RAS Start Port	<p>RAS (Registration Admission Status) start port number for IP telephone.</p> <p>Possible values: 1 ~ 65535 (Default = 1718)</p>
14 System IP RAS Register Port	<p>RAS (Registration Admission Status) register port number for IP telephone.</p> <p>Possible values: 1 ~ 65535 (Default = 1719)</p>
15 System IP Paging Max IP telephone	<p>Limit the number of simultaneous pages to IP telephones.</p> <p>Possible values: 0 ~ 160 (Default = 4)</p>
16 System IP BGM Max IP telephone	<p>Limit the number of IP phones to simultaneously receive background music.</p> <p>Possible values: 0 ~ 160 (Default = 0)</p>
17 LIPU/GIPx BIPU-Q Mode	<p>Sets BIPU-Q mode to allow the MIPU/GIPU/LIPU to communicate with BIPU-Q in a Strata Net IP network.</p> <p>Enable - MIPU/GIPU/LIPU is in BIPU-Q mode. Strata Net IP operation in a network with one or more BIPU-Q is allowed.</p> <p>Disable - MIPU/GIPU/LIPU is in MIPU/GIPU/LIPU mode. Strata Net IP operation in networks with LIPUs only, no BIPU-Q, is possible.</p> <p>This applies only to Strata Net IP operation. This parameter has no effect on BIPU-M cards used for IP Telephones.</p> <p>Possible values: Disable (Default), Enable</p>
19 Tail Length of Echo Canceller for MIPU	<p>This applies only to the MIPU and the GIPU (BIPU, GIPH, LIPU use FK10).</p> <p>Possible values: 1 - 16 ms echo cancel 2 - 32 ms echo cancel 3 - 64 ms echo cancel</p>
20 SIP Trunk Diffserv	<p>Enable to use Diffserv for SIP signalling on SIP trunk.</p> <p>Possible values: Enable or Disable (Default)</p>
21 SIP Trunk TOS Field Type	<p>If field 20 above is enabled, select DSCP (Differentiated Services Code Point) format or TOS (Type Of Service) format. If TOS is selected, set the packet priority level in 22 SIP Trunk TOS Precedence Type; if DSCP is selected, set the packet priority level in field 23 SIP Trunk DSCP</p> <p>Possible values: DSCP or TOS (Default)</p>
22 SIP Trunk TOS Precedence Type	<p>If TOS is selected in field 21 above, select a packet priority level where Critical/ESP provides the highest, and Routine provides the lowest, priority. If TOS is selected in field 21, make selections in TOS Delay, TOS Throughput Delay, and TOS Reliability Type.</p> <p>Possible values: Routine, Priority, Immediate, Flash, Flash Overd, Critical/ESP (Default)</p>
SIP Trunk TOS Delay Type	<p>If TOS is selected in field 21 above, select Normal for most cases</p> <p>Possible values: Normal (Default) or Low</p>

FIELD	DESCRIPTION
SIP Trunk TOS Throughput Type	If TOS is selected in field 21 above, select Normal for most cases. Possible values: Normal (Default) or High
SIP Trunk TOS Reliability Type	If TOS is selected in field 21 above, select Normal for most cases. Possible values: Normal (Default) or High
23 SIP Trunk DSCP	If DSCP is selected in field 21 above, select a priority level. Possible values: 0~63 (Default = 0)

151 BIPU Configuration

This program is used to set up the IP address of the specific BIPU card to support the IP-Telephone. BIPU card must be assigned before configuring the specific BIPU card.

1. Select IP-Telephony > BIPU Configuration.
2. Enter Program 151 data.
3. Click **Submit**.

Note Refer to Program 161 - IP-Telephony > L/M/G IPU Configuration.

FIELD	DESCRIPTION
Cabinet & Slot Number	<p>Enter the cabinet and slot number of the BIPU to be configured.</p> <p>Note: BIPU cards must first be installed using PRG100 - System/Card Assignment.</p> <p>BIPU cards can be installed in the slots listed:</p> <p>Cabinet</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01 for Base and Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet. • CIX/CTX670: Select 01 for Base and 02~07 respectively for each Expansion cabinet. • CIX1200: Select 01 for Base and 02~12 respectively for each Expansion cabinet. <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01~04 for Base slots and 05~09 for Expansion slots. • CIX/CTX100: Virtual Slot for ACTU Relay = Cabinet 02, Slot 05. • CIX200: Select 01~04 for either cabinet. • CIX/CTX670: Select 01~08 for Base slots and 01~10 for Expansion slots. • CXI1200: Select 01~08 for Base slots and 01~10 for Expansion slots.
01 IP Address	Enter the BIPU IP Address.
02 Subnet Address	Enter the Subnet Address of the BIPU.
03 Default Gateway Address	Enter the Default Gateway Address of the BIPU card.
04 Version Number of BIPU	This is a read-only field. The version number will automatically appear when the card is configured correctly.
05 IP Strata Net RTP Base Port (BIPU)	<p>The base of the 32-port range which can be used by BIPU card to assign port numbers for the IP Strata Net RTP protocol.</p> <p>Possible values: 16384~65504 (default = 20992). Only even numbers can be assigned.</p>

152 Voice Packet Configuration Table Assignment

This program assigns timing parameters to Prime DNs.

1. Select IP-Telephony > Voice Packet Configuration. The Voice Packet Configuration Table Assignment screen displays.
2. Enter Program 152 data.
3. Click **Submit**.

Note When setting Voice Packet Configuration Tables on an Strata Net IP network, the packet table settings for each node on an end-to-end connection must be the same.

Note Whenever Voice Packet Configuration Table changes are made for IP telephones on Strata Net IP nodes, Toshiba recommends pressing the reset button on the LIPU/BIPU to assure the changes take effect.

FIELD	DESCRIPTION
Voice Packet Table Number	<p>Enter the Voice Packet Configuration Table Number (1-256).</p> <p>Important! The default values in Voice Packet Table 1 are the recommended values for G.711 codecs. The default values in Voice Packet Table 2 are the recommended values for G.729A codecs. If the codec selected for an IP telephone in Program 250-08 is switched from the default G.711 to G.729A, the table used for the IP telephone is automatically switched from Table 1 to Table 2 in Program 250-07. However switching back to G.711 requires that you manually switch back to the Table 1 default parameter settings.</p> <p>Possible values: 1~128 (CIX100, CIX670 and CIX1200 Basic); 1~256 (CIX670 and CIX1200 Exp.)</p>
01 Voice Packet Trans. Int.	<p>Voice Packet Transmission Interval – This depends on the encoding method G711 or G729A. The default setting are G711: 20msec., G729A: 40msec. Note that 10msec. is only used to test - do not use 10ms. Normally, the default settings provide the best quality.</p> <p>If LAN bandwidth is not enough for these parameters and the problem is resolved to extend the interval according to the LAN requirement, you can change to G711:40msec. and G729a: 80msec.</p> <p>Note 30msec. need not be used.</p> <p>Possible values: 10 msec (available for testing only up to release 200MF008), 20 msec (default), 30 msec, 40 msec or 80 msec</p>
02 Jitter Buffer Type	<p>The default values for the selected codec is recommended. If the voice quality is not as expected you can change the jitter buffer type of DSP on LIPU/BIPU.</p> <p>Possible values: Fixed, Sequential, or Adaptive</p> <p>The default values are: G.711 = Adaptive, G.729A = Sequential (recommended).</p>
03 Jitter Buffer Length	<p>The default values for the selected codec is recommended. If the voice quality is not as expected you can change the jitter buffer length.</p> <p>Possible values: 0~250</p> <p>The default values are: G.711= 100msec., G.729A=40msec.</p>

IP Telephone Programming

IP Telephone Installation and Network Connection Setup

FIELD	DESCRIPTION
07 Packet Loss Threshold	If packet loss is more than 10, an error is recorded in the CIX error log and you cannot talk by IP telephone. The default value 5 is recommended. Possible values:0, 5, 10
08 Transmission Interval for MIPU/GIPU	10 ms 20 ms (default) 30 ms 40 ms 80 ms (only when G.729A is assigned; 40ms when G.711 assigned)
09 Jitter Buffer Type for MIPU/GIPU	Fixed Adaptive (default) Relative to FK02.
10 Jitter Buffer Length for MIPU/GIPU	0 to 200 ms (default = 100 ms) Corresponding to FK03
11 Maximum Acceptable Jitter Buffer for MIPU/GIPU	10 to 400 ms (default = 200 ms) Corresponding to FK04
12 Packet Loss Ratio for MIPU/GIPU	0 to 10% (default = 5%) Corresponding to FK06
13 Packet Loss Threshold for MIPU/GIPU	0 to 10% (default = 1%) Corresponding to FK07

161 LIPU/MIPU/GIPU Configuration

Prerequisite Program: None

This command defines the network configuration of an MIPU/LIPU/GIPU.

1. Select IP-Telephony > L/M/G IPU Configuration.
2. Select Cabinet and Card slot from list on right side, or enter a location and setup the MIPU/LIPU/GIPU by adding values to the remaining fields.
3. Click **Submit**.

FIELD	DESCRIPTION
00 Cabinet & Slot Number	<p>Enter the cabinet and slot number of the MIPU/LIPU/GIPx to be configured.</p> <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01 for Base and Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet. • CIX/CTX670: Select 01 for Base and 02~07 respectively for each Expansion cabinet. • CIX1200: Select 01 for Base and 02~12 respectively for each Expansion cabinet. <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01~04 for Base slots and 05~09 for Expansion slots. • CIX/CTX100: Virtual Slot for ACTU Relay = Cabinet 02, Slot 05. • CIX200: Select 01~04 for either cabinet. • CIX/CTX670: Select 01~08 for Base slots and 01~10 for Expansion slots. • CX11200: Select 01~08 for Base slots and 01~10 for Expansion slots. • CTX28 and CIX40 assignments are hard coded and cannot be changed. • Virtual Slot for GCTU Relay = Cabinet 02, Slot 05. <p>01, 01 - 8 digital telephones on motherboard (CTX28, CIX40 R1HW and R2HW).</p> <p>01, 02 - 3 CO lines on motherboard (CTX28, CIX40 R1HW), 4 CO lines (CIX40 R2HW)</p> <p>01, 03 - no card (CTX28, CIX40 R1HW), GVPH (CIX40 R2HW)</p> <p>01, 04 - 1 (Base) or 2 (GSTU) analog station ports (CTX28, CIX40 R1HW and R2HW)</p> <p>01, 05 - GVMU (CTX28), GVPH (CIX40 R1HW), GIPx, MIPU or GCOCIH (CIX40 R2HW)</p> <p>01, 06 - GIPx, MIPU16 or GCOCIH (CIX40 R1HW), no card (CTX28, CIX40 R2HW)</p> <p>01, 07 - 8 digital telephones on GCDU (CTX28, CIX40 R1HW and R2HW).</p> <p>01, 08 - 3 CO lines on GCDU (CTX28, CIX40 R1HW and R2HW).</p>

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FIELD	DESCRIPTION
01 IPU IP Address	Enter the MIPU/LIPU/GIPx IP Address. Possible values:XXX.XXX.XXX.XXX where XXX = 0 ~ 255
02 IPU Subnet Address	Enter the Subnet Mask of the MIPU/LIPU/GIPx. Possible values:XXX.XXX.XXX.XXX where XXX = 0 ~ 255
03 IPU Default Gateway Address	Enter the Default Gateway Address of the MIPU/LIPU/GIPx card. Possible values:XXX.XXX.XXX.XXX where XXX = 0 ~ 255
04 LIPS IP Address	Enter the second LIPU IP Address. The second LIPU IP address must be within the subnet address. Not used for MIPU/GIPx. Possible values:XXX.XXX.XXX.XXX where XXX = 0 ~ 255
05 LIPS Subnet Address	Enter the Subnet Mask of the second LIPU. Not used for MIPU/GIPx. Possible values:XXX.XXX.XXX.XXX where XXX = 0 ~ 255
06 LIPS Default Gateway Address	Enter the Default Gateway Address of the second LIPU. Not used for MIPU/GIPx. Possible values:XXX.XXX.XXX.XXX where XXX = 0 ~ 255
07 Version of IPU/IPH	Firmware version of MIPU/GIPx/LIPU is displayed. Possible values:Max 16 characters Possible values:For IPU 15 digits: IPUXX_XXY_AZXX IPUXX_XX: firmware version Y: Boot loader version AZXX: DSP Configuration File A= Country Z=Major version 0~ 9 XX=Minor version 00 ~ 99
08 Version of LIPS	Firmware version of LIPS-X is shown. Possible values:Max 16 characters
09 Available IPU/IPH IP Ports	Number of available IP ports in MIPU/GIPU/LIPU-X is shown. When speaker OCA is assigned to an IP telephone an additional IP port is assigned to the IP telephone. If there is no available IP port in the LIPU-X, no more IP telephone/SIP/Strata Net IPs can be assigned. Possible values:0~24 (MIPU24), 0~16 (MIPU16, LIPU, LIPS), 0~8 (GIPx)
10 Available LIPS IP Ports	Number of available IP ports in LIPS is shown. When speaker OCA is assigned to an IP telephone an additional IP port is assigned to the IP telephone. If there is no available IP port in the LIPS, no more IP telephone/SIP/Strata Net IPs can be assigned. Possible values:0 ~ 16
11 IPU/IPH Packet Prioritization	Enable or Disable Packet Prioritization Possible values:Enable, Disable The default value is: Disable

FIELD	DESCRIPTION
12 IPU/IPH Packet Prioritization Type	When Packet Prioritization is enabled select the type of prioritization. Possible values: Best Effort, Voice The default value is: Voice
13 IPU/IPH VLAN	Enable or Disable VLAN tagging Possible values: Enable, Disable The default value is: Disable
14 IPU/IPH VLAN ID	Set the VLAN ID Possible values: 1 ~ 4094 The default value is: 1
15 LIPS Packet Prioritization	Enable or Disable Packet Prioritization Possible values: Enable, Disable The default value is: Disable
16 LIPS Packet Prioritization Type	When Packet Prioritization is enabled, select the type of prioritization. Possible values: Best Effort, Voice The default value is: Voice
17 LIPS VLAN	Enable or Disable VLAN tagging Possible values: Enable, Disable The default value is: Disable
18 LIPS VLAN ID	Set the VLAN ID Possible values: 1 ~ 4094 The default value is: 1
19 IP Strata Net RTP Base Port (IPU/IPH)	The base port number of the 32 port range for IP Strata Net RTP protocol can be set for individual MIPU, LIPU, or GIPx cards. Possible values: 16384 ~ 16511 Note Only even port numbers can be assigned.
20 Strata Net RTP Base Port (LIPS)	The base port number of the 32 port range for IP Strata Net RTP protocol can be set for individual MIPU, LIPU, or GIPx cards. Possible values: 16384 ~ 16511 Note Only even port numbers can be assigned.
21 DHCP for MIPU/GIPU	Enable: MIPU/GIPx can get an IP Address via DHCP. Disable: IP Address must be assigned. Note MIPU/GIPU only. LIPU, LIPS, and BIPU do not support DHCP.
22 MIPU Primary DNS	Domain Name System (DNS) server that translates IP address to the corresponding computer or domain name. The IP address consists of four octets. Enter the first octet address from 0-255. This feature only pertains to the IP card.

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FIELD	DESCRIPTION
23 MIPU Secondary DNS Server	In the event that the primary DNS is not available, the MIU will attempt to reach the secondary DNS server. The IP address consists of four octets. Enter the first octet address from 0-255 for the MIPU. This feature only pertains to the MIPU card.
24 MIPU Hostname	A hostname is a unique network name by which a host device on the network can be identified. Enter a hostname for the IP card with a max. 32 characters.
25 MIPU Primary DNS Suffix	A DNS suffix is a name appended after the computer name to form a fully qualified domain name. For example, in mipu1.toshiba.com, toshiba.com would be the DNS suffix. Enter a DNS suffix for the MIPU - 32 char. max.

250 IP Telephone (Station) Data Assignment

Prerequisite Program: None

This command configures IP stations in the system.

1. Select IP-Telephony > IPT Data.
2. Enter a DN number in the Prime DN field or select a DN from the list displayed on the right.
3. Setup the DN by adding values to the remaining fields.
4. Click **Submit**.

FIELD	DESCRIPTION
00 Prime DN	Enter the IP telephone Prime Directory Number (PDN)
01 Station ID	<p>Station ID is set from the IP telephone to match its PDN in station programming. The station ID is the same as the station PDN unless there is more than one CTX/CIX system with BIPU-M, GIPx, MIPU, LIPU/LIPS on the same network. In this case the station ID for each IP telephone must contain the CTX/CIX Node ID+PDN.</p> <p>Possible values: Up to 5 ASCII characters</p>
02 Station IP Address Type	<p>Select the Station IP Address to be static 'fixed' or dynamic in which case it obtains an IP address from a DHCP server.</p> <p>Possible values: Fixed or Any (Default)</p>
03 Station IP Address	<p>Enter the Station static IP Address if a static address is needed per Station IP Address Type set in 02 above.</p> <p>Possible values: XXX.XXX.XXX.XXX where XXX = 0 ~ 255</p>
04 Auto Assign Station ID	<p>Use Automatic when the IP telephone has no Station ID. Use Not Automatic when IP telephone has station ID in the IP telephone setting. In Program 150, field 01 is the same parameter for system.</p> <p>When Don't Care is set, program 150-01 precedes in Program 250-04.</p> <p>Enabling Program 150-01 is equal to using automatic in Program 250-04. Disabling in Program 150-01 is equal to not automatic in Program 250-04. When the IP telephone requests to connect to a Strata CIX with no station ID, the CIX searches for a PDN that is set in this parameter as automatic and sends the PDN to the IP telephone. The IP telephone records it in the IP telephone setting.</p> <p>Possible values: Permitted, Not Permitted or Don't Care (Default)</p>

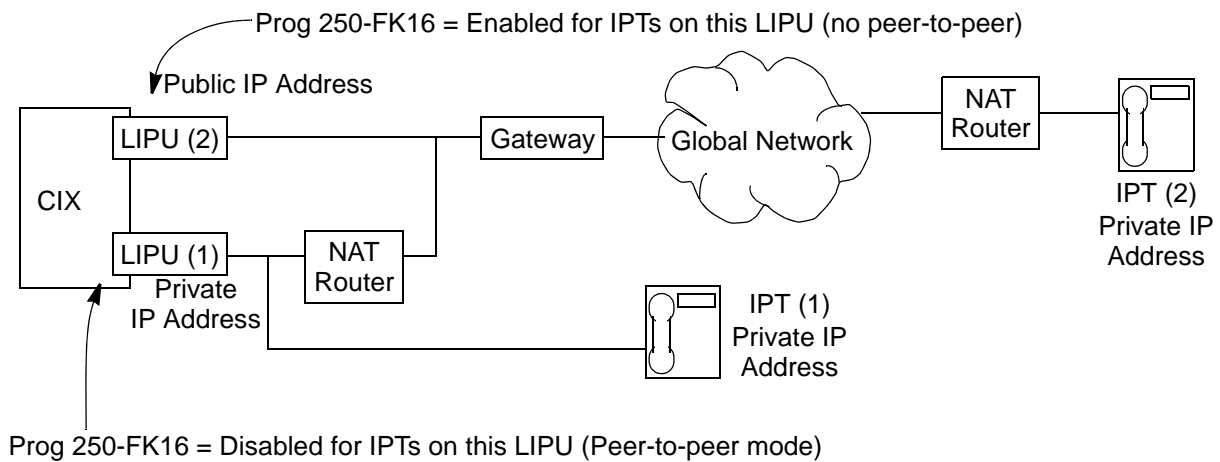
FIELD	DESCRIPTION
05 Station Terminal Authentication Mode	<p>Apply this parameter if you want to reserve a PDN for the IP telephone connected at the present time. When apply is set, terminal authentication by MAC address of the IP telephone is valid. So if another IP telephone which has the same PDN is connected to the network, the CIX rejects the registration of this IP telephone because the MAC address of the IP telephone is different. When not apply is set, you can move the PDN from an IP telephone to another IP telephone and another IP telephone can be connected to the CIX. When don't care is set, terminal authentication for this telephone is determined by Program 150-02.</p> <p>The Terminal Authentication setting Apply or Not Apply in this program overrides the Terminal Authentication setting in Program 150-02</p> <p>Possible values:Apply, Not Apply or Don't Care (Default)</p>
06 Station MAC Address	<p>Station Media Access Control (MAC) Address. This address is hard coded uniquely in each IP telephone. The MAC will only display if the IP telephone is connected to the BIPU-M and is operating properly.</p> <p>Possible values:Max 12 ASCII characters</p>
07 Voice Packet Table	<p>Select the Voice Packet configuration table that should be assigned to this IP telephone (voice tables are configured in Program 152). When the G711 Audio Codec is selected in 08 codec below, the default values in Program 152-01, Table 1 should be used. When the G.729A codec is selected in 08 Audio Codec below, the default values in Program 152-01 Table 2 should be used.</p> <p>Important: When switching the IP telephone from the G.711 to the G.729 codec (the first time), the CIX will automatically switch the Voice Packet table from Table 1 to Table 2.</p> <p>Possible values:1 ~ 128</p>
08 Audio Codec	<p>IP telephones have two built-in codecs. Select the audio codec that should be used in this IP telephone.</p> <p>The G.711codec - provides the highest voice quality but uses the most network bandwidth (about 115kbps per IP telephone when in use).</p> <p>The G.729A codec - provides less voice quality but uses the least amount of network bandwidth (about 29kbps per IP telephone when in use).</p> <p>High traffic or low speed networks may require the IP Telephones to use G729A.</p> <p>Example:</p> <p>Installing remote IP telephones connected to Cable or DSL lines, the upstream rate is usually restricted and may not provide a consistent upstream bandwidth (advertised as 128kbs but is normally less because of traffic) so the G729a codec would probable be the best choice for this situation.</p> <p>The Voice Packet Table 'Prog 250-07' and the VP Table's voice packet parameters Prog 152 must be set properly for the codec assigned.</p> <p>Possible values:G711 (Default) or G729A</p> <p>Note IP Attendant Console supports G.711 only.</p>

FIELD	DESCRIPTION
09 Display Software Version Number of IP Telephone	<p>This is read-only. If any problem occurs it is useful to analyze the problem with this version. A sample software version is DIP11NA. DIP1 represents the IP telephone model; 1NA represents software version of the IP telephone; 1N represents the version of updatable software and A means the version of not-updatable software (BootROM).</p> <p>Possible values:Max. 16 ASCII characters</p>
10 SIP Terminal URI	<p>Set the Uniform Resource Identifier of the SIP terminal. URI is to identify the IP telephone in the system. You can use A-Z, a-z and 0-9 up to 32 characters as the URI. It has to be unique in the system.</p> <p>Possible values:Max 32 ASCII characters</p>
11 SIP Terminal Password	<p>Set password for terminal authentication of the SIP terminal. This password is checked for terminal authentication when registration is performed from the SIP terminal. You can use A-Z, a-z and 0-9 up to 64 characters. It doesn't have to be unique in the system, and same password can be assigned to plural SIP terminals.</p>
12 IP Sta KeepAlive Timer	<p>Keep-alive timer for station for full IP station.</p> <p>Possible values:0 ~ 60 seconds</p>
13 Station IP DTMF Translation Mode	<p>DTMF translation mode for full IP station.</p> <p>Possible values:Tone (Default), Outband or Inband</p> <p>Note This parameter is not supported in CIX.</p>
14 Secondary Audio Codec for Full IP station	<p>IP telephones have two built-in codecs. Select the audio codec that should be used in this IP telephone.</p> <p>The G.711codec - provides the highest voice quality but uses the most network bandwidth (about 115kbps per IP telephone when in use).</p> <p>The G.729A codec - provides less voice quality but uses the least amount of network bandwidth (about 29kbps per IP telephone when in use).</p> <p>High traffic or low speed networks may require the IP Telephones to use G729A.</p> <p>Example:</p> <p>If installing remote IP telephones connected to Cable or DSL lines, the upstream rate is usually restricted and may not provide a consistent upstream bandwidth (advertised as 128kbs but is normally less because of traffic) so the G729a codec would probable be the best choice for this situation.</p> <p>The Voice Packet Table Prog 250-07 and the VP Table's voice packet parameters Prog 152 must be set properly for the codec assigned.</p> <p>Possible values:G711, G729A (Default), None</p>
15 Secondary Voice Packet Index	<p>CIX provides peer to peer connection when an IP telephone directly communicates with another IP telephone. A negotiation method is required to resolve differing audio codec settings on the IP telephones. When a call is established between IP telephones, the CIX will check the assignment of secondary audio codecs. If there is matching assignment, it will be applied. If there is not, the user will hear reorder tone.</p> <p>Possible values:1 ~ 128</p>

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FIELD	DESCRIPTION
16 IP NAT/No Peer to Peer	Enable if the IP telephone is in a NAT (Network Address Translation) environment. Possible values: Enable or Disable (Default) Refer to Figure 8-1.
17 Base UDP Port for IP Telephone Media Channel	The base UDP port for the IP telephone media channel can be set to accommodate a particular network configuration. Possible values: 1026 ~ 65532 (Default = 49154) Note Only even port numbers can be assigned.



NOTE: If the NAT router is an inconsistent/symmetric type, the IPTs on LIPU (1) should have Prog 250-FK16 set to Enabled.

When a system has LIPUs with private IP addresses and LIPUs with public IP addresses set Prog. 250 - FK16 as shown here to prevent one way speech path between IPT (1) and IPT (2).

Figure 8-1 Station IP NAT Example

260 Full IP Station Assignment

Prerequisite Program: CABINET SLOT PCB ASSIGNMENTS

This command assigns IP station and MAS HMP resources to the GIPx, MIPU and LIPU/LIPS interfaces.

1. Select Station > Station Assignments, and click on the Basic tab.
2. Enter a DN number in the Primary DN field or click one of the following buttons:
 - **List** – view a summary list of programmed DNs.
 - **Extended List** – view a detailed list of programmed DNs.
 - **Create** – Assign a new DN with custom settings by entering a DN value. Press **OK**, assign the PDN Equipment No. and click **Submit**.
 - **Selective Copy** – Enter a DN in the Primary DN field and click **Selective Copy** to make a new DN assignment with settings copied from the DN entered in the Primary DN field.
 - **Delete** – Enter a Primary DN or a range of Primary DNs to delete and click **OK**.
 - **Change DN** – Enter a DN in the Primary DN field and click **Change DN**. Enter the new DN assignment and click **OK**.
3. Setup the DN by adding values to the remaining fields.
4. Click **Submit**.

Note The max. number of IP telephones programmed on one MIPU (MIPU24) is 24; the GIPU8 is 8.

FIELD	DESCRIPTION
00 Prime DN	Prime DN (enter an existing PDN or enter a PDN you wish to create for a new station).
01 Type	<p>Assign device types to GIPx, MIPU, LIPU/LIPS ports.</p> <ul style="list-style-type: none"> • IPT2000 series, IP5000 series telephones, and IP Softphones are IPT (require End Point License). • SIP telephones are SIP (require End Point license). • IP Attendant Consoles are ATTENDANT (require Basic Port License). • VM Ports are VOICE MAIL (require Basic Port License and MAS HMP resource). • ACD Announcers are ACD ANNOUNCE (require Basic Port License and MAS HMP resource). <p>Note IPT1020 telephones cannot be assigned to GIPx, MIPU, LIPU/LIPS - they must be assigned to a BIPU-M using Prog 200.</p>

FIELD	DESCRIPTION
02 PDN Equipment Number	<p>Enter the PDN equipment number. This is the cabinet and slot number of the GIPx, MIPU, LIPU/LIPS card (0000 means auto assignment).</p> <p>Notes:</p> <ul style="list-style-type: none"> • IPT1020s must be installed on BIPU-M; cannot be installed on LIPU/LIPS, MIPU or GIPx. • SIP phones must be installed on LIPU/LIPS, MIPU or GIPx; cannot be installed on BIPU-M • IPT2000 series, IP5000-series, and IP Softphones can be installed on LIPU/LIPS, MIPU, GIPx or BIPU-M (in BIPU-M the IP5000-series telephone acts as an IPT2000-series telephone). • MIPU and GIPU require R5.0 software or higher. <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01 for Base and Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet. • CIX/CTX670: Select 01 for Base and 02~07 respectively for each Expansion cabinet. • CIX1200: Select 01 for Base and 02~12 respectively for each Expansion cabinet. <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01~04 for Base slots and 05~08 for Expansion slots. • CIX/CTX100: Virtual Slot for ACTU Relay = Cabinet 02, Slot 05. • CIX200: Select 01~04 for either cabinet. • CIX/CTX670: Select 01~08 for Base slots and 01~10 for Expansion slots. • CIX1200: Select 01~08 for Base slots and 01~10 for Expansion slots. • CTX28 and CIX40 assignments are hard coded and cannot be changed. <p>Virtual Slot for GCTU Relay = Cabinet 02, Slot 05.</p> <p>01, 01 - 8 digital telephones on motherboard (CTX28, CIX40 R1HW and R2HW).</p> <p>01, 02 - 3 CO lines on motherboard (CTX28, CIX40 R1HW), 4 CO lines (CIX40 R2HW)</p> <p>01, 03 - no card (CTX28, CIX40 R1HW), GVPH (CIX40 R2HW)</p> <p>01, 04 - 1 (Base) or 2 (GSTU) analog station ports (CTX28, CIX40 R1HW and R2HW)</p> <p>01, 05 - GVMU (CTX28), GVPH (CIX40 R1HW), GIPx, MIPU or GCOCIH (CIX40 R2HW)</p> <p>01, 06 - GIPx, MIPU16 or GCOCIH (CIX40 R1HW), no card (CTX28, CIX40 R2HW)</p> <p>01, 07 - 8 digital telephones on GCDU (CTX28, CIX40 R1HW and R2HW).</p> <p>01, 08 - 3 CO lines on GCDU (CTX28, CIX40 R1HW and R2HW).</p>
03 LAN Interface Number	<p>Enter 1 for a GIPx, MIPU and LIPU, 2 for an LIPS</p> <p>Possible values: 1 (Default) or 2.</p>

FIELD	DESCRIPTION
04	Not Used
05 COS Day1	Class of Service for Day1 mode Possible values: 1~32
• Day2	Class of Service for Day 2 mode. Possible values: 1~32
• Night	Class of Service for Night mode. Possible values: 1~32.
06 DRL Day1	Destination Restriction Level for Day1 Mode (used for credit card calling) Possible values: 1~16
• Day 2	Destination Restriction Level for Day2 Mode. Possible values: 1~16
• Night	Destination Restriction Level for Night Mode. Possible values: 1~16
07 FRL Day1	Facilities Restriction Level for Day 1 Mode. Possible values: 1~16s
• Day 2	Facilities Restriction Level for Day 2 Mode. Possible values: 1~16s
• Night	Facilities Restriction Level for Night Mode. Possible values: 1~16
08 LCR Group	Least Cost Routing Group Number Possible values: 1~16
09 QPL Day1	Queuing Priority Level for Day 1 Mode. Possible values: 1~16
• QPL Day 2	Queuing Priority Level for Day 2 Mode. Possible values: 1~16
• QPL Night	Queuing Priority Level for Night Mode. Possible values: 1~16
10 Name to Display	Enter the name that should be displayed on telephone LCDs for this PDN. Possible values: 16 ASCII characters
11 Dialing Progress Tone	Type of tone to hear after dialing LCR access code. Possible values: Dial Tone (Default), Entry Tone, or Silence
12 System Call Forward	System Call Forward group number. Possible values: 0~4 (CIX100), 0~10 (CIX200, CIX670/1200 Basic), 0~32 (CIX670 Exp), 0~48 (CIX1200 Exp)

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FIELD	DESCRIPTION
13 Call Pickup	<p>The station privilege to activate Call Pickup.</p> <p>Possible values: Permitted (Default), Group Only, or Not Permitted</p>
14 Bearer Capability	<p>ISDN Bearer Capability the PSTN is expecting from non-ISDN stations. 3.1kHz Audio (data and speech) or Speech.</p> <p>Important Notes:</p> <p>Standard telephone type data devices (modems, G3-Fax signals) must be set for 3.1KHz audio on ISDN lines.</p> <p>The Strata Net IP network does not support 3.1KHz (data and speech). All standard telephone equipment must be set to Speech if making calls over Strata Net IP.</p> <p>Possible values: Audio (Default) or Speech</p>
15 Display DN	<p>If this station is a member of a hunt group that has a pilot number and Pilot Display Number set in Prog 209-02 and Prog 209-04 respectively, enter the HG Pilot Display Number in this field. This number will display on the LCD of telephones when calling, or when called by, this station or VM port.</p> <p>This is necessary for proper operation of hunt groups, including centralized voice mail, over Strata Net.</p> <p>Possible values: Dial string of 1~ 5 digits</p>
16 CESID	<p>E911 Calling Party Information identifier for this station (CESID). Should be a valid NANP telephone number.</p> <p>Possible values: Up to 16 digits</p>
17 Emergency Call Group	<p>The Emergency call group that this station belongs to.</p> <p>Possible values: 1~8 (Default ~ 1)</p>
18 Remote CF/DND Password	<p>Password to remotely set or cancel DND or station Call Forward from another CIX station, or for Call Forward only from an external DISA line.</p> <p>Note: DND can not be set/canceled remotely from a DISA line.</p> <p>Possible values: 1 ~ 4 digits</p>
19 VMID Code	<p>Enter the voice mailbox number that should answer calls when this PDN calls voice mail or, when this PDN is called and then forwards to voice mail (this number is prefixed by codes in Prog 579, 11~16).</p> <p>Valid entries: digits 0~9, * and #, maximum 10 characters.</p> <p>This VMID code is sent to the voice mail device in SMDI packets or DTMF tones on direct calls to voice mail from the PDN and on calls to the PDN that forward to voice mail.</p> <p>Note: See Prog 580 for SMDI or DTMF choice.</p> <p>Possible values: 1 ~ 10 digits</p>
20 VM MW Center Port	<p>Message Waiting Center DN.</p> <p>Enter the VM PDN or Pilot DN number that should display on telephone LCDs when calling voice mail or receiving calls from voice mail.</p> <p>Possible values: Valid DN</p>

FIELD	DESCRIPTION
21 Travel COS Change	Privilege Change the Travelling Class of Service Override Code. Possible values: Enabled or Disabled (Default)
22 TGAC Override	Trunk Group Access Code Override for attendant console. Possible values: Enabled or Disabled (Default)
23 Service Tones	Disable Services Tone for Data Privacy. Service tone, such as Call Waiting Tone, should be disabled for modems, FAXes, and similar devices. Possible values: Enabled (Default) or Disabled
24 Call Waiting Tone	Enable/Disable the station to receive Call Waiting (Camp-on) and Ring Over Busy (ROB) Tone. CW tone is always two beeps. ROB tone can be two beeps or continuous as set in PRG 204, 27. Possible values: Enabled (Default) or Disabled
25 Dial Directory	The telephone User Name will appear in the display of large LCD (Directory Assistance). Possible values: Enabled (Default) or Disabled
26 Door Over DND	Enable DND to be overridden by a door phone. Possible values: Override or Not Override (Default)
27 Set System Speed Dial	Privilege to set System Speed Dial numbers. Possible values: Enabled or Disabled (Default)
28 Network COS	Network Class Of Service number. Possible values: 1 (Default) ~ 32
29 Auto OCA	OCA occurs automatically when making a call to a busy station that allows OCA calls to be received. Possible values: Enabled (Default) or Disabled
30 Originate OCA	The privilege to make OCA calls to other stations. Important Note: This privilege must be disabled for all voice mail and auto attendant ports. Possible Values: Enabled (Default) or Disabled
31 RSTU Supervision	Devices connected to RSTU circuits that do not automatically hang up, and connect to CO lines that do not provide disconnect supervision should be set with Not Received. This enables the auto disconnect Tandem timer in PRG 104, PB06 for these types of connections. Possible Values: Received (Default) or Not Received
32 Station SpDial Bins	The number of station speed dial bins allocated to this station. Possible values: 0 ~ 100 (maximum=100 per station).

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FIELD	DESCRIPTION
33 Call Forward Dial Tone	<p>When the handset is picked up the user will hear stutter dial tone if Station Call Forward is set on the telephone.</p> <p>Possible values: Enabled (Default) or Disabled</p>
34 Dialing Digit Restriction	<p>After the extension has made a call it can be prevented from dialing any subsequent digits.</p> <p>Possible values: Enabled or Disabled (Default)</p>
35 CO Park & Hold	<p>Enabled: When this station parks a line call, CO or GCO buttons of the parked line that appear on other stations will be on hold. This will allow the other stations to press the CO or GCO button to pickup the parked call.</p> <p>Disabled: When this station parks a line call, CO or GCO buttons of the parked line that appear on other stations will appear busy. This will prevent the other stations to press the CO or GCO button to pickup the parked call.</p> <p>Possible values: Enabled or Disabled (Default)</p>
36 MW & DND Dial Tone	<p>Enable: When this station goes off hook, the station will receive stuttered dial tone when it has a message waiting indication and the station will receive a busy tone burst before dial tone when in the DND mode.</p> <p>Disable: This station will receive normal dial tone when it has a message waiting or when it is in the DND mode.</p> <p>Possible values: Enabled (Default) or Disabled</p>
37 Activate Message Waiting	<p>Enable: This station is allowed to activate station-to-station message waiting on other stations by dialing the other station number plus 7, 8, or 9, or by pressing the Msg key.</p> <p>Disable: This station cannot activate station-to-station message waiting on other stations by dialing the station number plus 7, 8, 9, or by pressing the Msg key.</p> <p>Note: This parameter does not apply to voice mail ports, they use the special message waiting access codes.</p> <p>Possible values: Enabled (Default) or Disabled</p>
38 Tenant Number	<p>Enter the Tenant number to which this PDN should be assigned.</p> <p>Possible values: 1(default) ~ 8</p>
39 Hook-Switch Recall	<p>1: Enable Recall for Digital Telephones for normal operation.</p> <p>2: Disable Recall on Standard Telephones that produce hook-switch bounce when they are hung-up. This prevents annoying ring recalls when the user hangs up on a call.</p> <p>Possible values: Enabled (Default) or Disabled</p>

FIELD	DESCRIPTION
40 Auto-Campon to PDN	<p>Enable - to allow auto-campon to this PDN when busy and called by a CO line even if the CO line group has auto camp-on disabled in Program 304-17.</p> <p>Disable - to not allow auto camp-on to this PDN when called by a CO line if the CO line group has auto camp-on disabled in Program 304-17.</p> <p>Notes</p> <ol style="list-style-type: none"> 1. Auto camp-on will always occur on the PDN if the calling CO line group has auto camp-on enabled in Program 304-17 regardless of how this option is set. 2. Auto camp-on will be applied or not to PhDNs according to the PhDN owner PDN setting for this option. <p>Possible values: Enabled (Default) or Disabled</p>
41 LCR PDN Code	<p>Enter the number of digits that determine when to send the LCR PDN code. The PDN code is registered in the LCR Modified Digits Table.</p> <p>Possible values: G711, G729A (Default), None</p>
42 Network Calling Number	<p>Enter the CLID telephone number that should be sent for this station when making external calls through the Strata Net ISDN network (32 digits max.). When this station makes outgoing calls through the Strata Net network this number will be sent over the Strata Net to the terminating PSTN connected to the far-end node (providing this is allowed by the PSTN). This number will be displayed as the Caller ID number. This number is not sent to local PSTNs connected to the node from which the call is originated, nor is it sent when making conventional Tie line calls that terminate on a PSTN at a far-end node.</p> <p>Possible values: 32 Digits max.</p>
43 Security Code	<p>Used for log in to My Phone manger when Voice Mail does not exist. This Security Code is also used for IP User Mobility. If #49 is set to Enable, this field must be given a value.</p> <p>Possible values: 16 Characters Max</p>
44 My Phone Manager Level	<p>Enter the Personal Admin user privilege level for this station.</p> <p>Possible values: Normal (Default), Super1 or Super2.</p>
45 Speaker OCA	<p>Enable or disable Speaker OCA on an IP telephone. When speaker OCA is assigned to an IP telephone, an additional IP port is assigned to the IP telephone. If there is no available IP port, S-OCA cannot be assigned and an eManager error will occur.</p> <p>Possible values: Enabled or Disabled (Default)</p>
49 IP Phone Login Password	<p>Determines whether a password is required for phone login. Used for both MyPhyone Manger and for IP User Mobility, as well. If set to Enable, a password is required in #43.</p> <p>Possible values: Enable (applies a phone login password) or Disabled (Default)</p>
50 Use Transfer Registration	<p>Whether or not apply Transfer Reg. - Set to Enable to allow IP Mobility for this DN.</p> <p>Possible values: Enabled or Disabled (Default)</p> <p>Note Assign a Phone Logout feature key on this DN.</p>

FIELD	DESCRIPTION
<p>51 Connecting Equipment Number</p>	<p>This field shows which LIPU/MIPU/GIPx (Cabinet #/ Slot#/ Port#) the IP station is connected to. This value enables the Admin to determine which LIPU/MIPU/GIPx was used to host the IP station if the IP station was created using dynamic (0000) port creation.</p> <p>MIPU and GIPU require R5.0 software or higher.</p> <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01 for Base and Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet. • CIX/CTX670: Select 01 for Base and 02~07 respectively for each Expansion cabinet. • CIX1200: Select 01 for Base and 02~12 respectively for each Expansion cabinet. <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01~04 for Base slots and 05~08 for Expansion slots. • CIX/CTX100: Virtual Slot for ACTU Relay = Cabinet 02, Slot 05. • CIX200: Select 01~04 for either cabinet. • CIX/CTX670: Select 01~08 for Base slots and 01~10 for Expansion slots. • CIX1200: Select 01~08 for Base slots and 01~10 for Expansion slots. • CTX28 and CIX40 assignments are hard coded and cannot be changed. <p>Virtual Slot for GCTU Relay = Cabinet 02, Slot 05.</p> <p>01, 01 - 8 digital telephones on motherboard (CTX28, CIX40 R1HW and R2HW).</p> <p>01, 02 - 3 CO lines on motherboard (CTX28, CIX40 R1HW), 4 CO lines (CIX40 R2HW)</p> <p>01, 03 - no card (CTX28, CIX40 R1HW), GVPH (CIX40 R2HW)</p> <p>01, 04 - 1 (Base) or 2 (GSTU) analog station ports (CTX28, CIX40 R1HW and R2HW)</p> <p>01, 05 - GVMU (CTX28), GVPH (CIX40 R1HW), GIPx, MIPU or GCOCIH (CIX40 R2HW)</p> <p>01, 06 - GIPx, MIPU16 or GCOCIH (CIX40 R1HW), no card (CTX28, CIX40 R2HW)</p> <p>01, 07 - 8 digital telephones on GCDU (CTX28, CIX40 R1HW and R2HW).</p> <p>01, 08 - 3 CO lines on GCDU (CTX28, CIX40 R1HW and R2HW).</p>
<p>52 Station Calling Name Type</p>	<p>Enter the type of Calling Name for Outgoing Name Delivery. This field is only valid for Outgoing Call for "National" or "Nortel" ISDN-PRI Trunks.</p> <p>1:None - Not send the Calling Name to ISDN-PRI Trunk</p> <p>2:LCD - Send the station name assigned by PRG200 FK10 to ISDN-PRI Trunk.</p> <p>3.SPECIAL - Send the Special Name assigned by PRG322 FK4 to ISDN-PRI Trunk.</p> <p>4.DEFAULT - Send the Default Calling Name assigned by PRG321 FK5 to ISDN-PRI Trunk.</p>
<p>53 Station Specified Caller ID</p>	<p>Enabled - Station Name is displayed after the call is answered on an internal call.</p> <p>Disabled - Station Name is changed to DN after the call is answered on an internal call.</p>

FIELD	DESCRIPTION
54 Simple System SpeedDial	Whether or not to system speed dial supplement is allowed. Possible values: Enabled or Disabled (Default)
55 SIP Inband Mode	Whether or not SIP extensions can transmit DTMF to a trunk while ringing the called party. Possible values: Enabled or Disabled (Default)

674 Remote Node IPU IP Address Assignment

Note Release 5.00 MR14 and later only.

Prerequisite Program: none

This command assigns a node ID to an MIPU/GIPU/LIPU IP Address. This is used by the IP Mobility feature to identify the home MIPU/GIPU/LIPU IP Address of a DN.

1. Select Strata Net > Remote Node IPU Address.
2. Enter the Remote Node ID.
3. Enter the IP Address of the MIPU/GIPU/LIPU in that remote node.
4. Click **Add**.
5. To **Remove** or **Modify** a node, double-click the Node ID.

FIELD	DESCRIPTION
00 Remote Node ID	The Node ID of the CIX system to connect to over Strata Net.
01 Remote Node IPU IP Address	IP Address of the MIPU/GIPU/LIPU in the remote node.

IP Mobility Programming

Requirements

- CIX Software: R5.10 or higher
- SoftIPT: 02.00.0000 or higher
- MIPU: MIPU_01_01 or higher
- GIPH: GIPH_02_03 or higher
- GIPU8
- LIPU: LIPU_02_03 or higher
- Network eManager
- IPT20X0-SD: DIP2T2K
- IPT2008: DIP2M2K
- IPT2010: DIP2T2KX-A06
- IP5000

Note IP User Mobility will run on an MIPU/GIPU and an LIPU version LIPU_02_03 or higher. IP Mobility is not supported on the BIPU.

More IP Telephone DNs than xIPU ports

In R5 and later, software administrators are able to create more IP telephones in Program 260 than the number of xIPU ports.

When an IP telephone DN is programmed (Prog. 260) as Fixed Assignment it is registered to an available xIPU resource. The xIPU resource must be available when the DN is programmed. When the IP telephone DN is in use it will use that xIPU port. When logged out the xIPU port is held for that IP telephone DN. If an xIPU resource is not available the IP telephone DN cannot be programmed. IP licenses are not checked when the DN is programmed.

When an IP telephone DN is registered by Program 260, field 02 as Auto Assignment there is no specific xIPU resource assigned and the number of licenses is not checked. This means there can be more IP telephone DNs programmed into the CIX data base than there are xIPU resources. Also, there can be more IP telephone DNs than IP port licenses.

Feature Administration/Programming

New programming is as follows.

Table 8-1 CIX Programming Notes

Program Number	FK/Feature Code	Parameter Name/ Programming Name	Range	Default	Used Function
102	545	Logout Feature Access Code	5 Digits Max	No Data	Logout
205	545	Logout Feature Key	Feature Key Number	No Data	Logout
213	545	Logout Feature Key	Feature Key Number	No Data	Logout
215	545	Logout Feature Key	Feature Key Number	No Data	Logout
260	field 49	Whether or not apply the Login Password Authentication	Enabled/Disabled	Disabled	Login
260	field 50	Whether or not apply Transfer Reg	Enabled/Disabled	Disabled	Transfer Reg
260	field 51	Displays the PDN Equipment Number of the MIPU/GIPU/LIPU the IP telephone is connecting with	XXYYZZ XX=Cab, YY=Slot, ZZ=LAN IF No.	—	Login
674	—	Other Node MIPU/GIPU/LIPU IP Address Assignment	—	—	Login to Multi-Node

IP Telephone Programming

Table 8-2 IP Telephone Feature And Programming Notes

Upper: IPT2010, 2020, IP5122-SD, 5122-SDC, 5132-SD Lower: IPT2008, IP5131-SDL	Parameter Name	Range	Default	Used Function
Network Setting Mode SELECT=2, field 25 Network Setting (Basic) Network	Whether or not to apply Auto-Login on power up	Auto/Manual	Auto	Auto-Login on power up
Network Setting Mode SELECT = 2, field 26 Network Setting (Basic) Network	The password for authentication when Auto-Login on power up is set	16 digits Max	No Data	Auto-Login on power up
Network Setting Mode SELECT = 2, field 13 Network Setting (Basic) Network	Secondary IPU address	XXX.XXX.XXX.XXX XXX = 0 - 255	0.0.0.0	Secondary IPU address
Terminal Information SELECT=1, field 04 Terminal Information	The display of MIPU/GIPU/LIPU IP address the IP telephone is connecting with	XXX.XXX.XXX.XXX XXX = 0 - 255	—	Primary IPU address

Upper: IPT2010, 2020, IP5122-SD, 5122-SDC, 5132-SD	Parameter Name	Range	Default	Used Function
Lower: IPT2008, IP5131-SDL				
Terminal Information SELECT=2, field 27	Language Mode	US English, UK English, French/ Spanish	US English	
The IPT2008-SDL and IP5131-SDL have language change capability				

IP Mobility Programming Steps

The basics of IP Mobility setup are done in the station assignment programming. The IP Mobility features are assigned to directory numbers (DN). The steps below outline the process.

1. Assign the MIPU/GIPU/LIPU card.
2. Assign the DN that will use IP Mobility as an IPT. In program 260:
 - field 01 –set to IPT
 - field 49 – is a password required?
 Disable (default) - no password required
 Enable - a password is required to login. Set the password in field 43
 - field 43 – The security code entered here is the IP Mobility login password when field 49 = Enable
 - field 50 – Use Transfer Registration
 Enable = IP Mobility
 Disable = This DN does not have IP Mobility
 - field 51–Read-Only field. Displays the MIPU/GIPU/LIPU equipment number for this DN.
3. For multi-node systems, assign the IP Address of the MIPU/GIPU/LIPU card in each node. Use Network eManager Strata Net > Remote Node IPU Address. These assignments must be made in all nodes.

Compatibility

IP User Mobility is compatible with the following:

- LIPU/LIPS (LIPU_02_03 and later)
- GIPH
- GIPU8
- MIPU16
- MIPU24

IP Mobility is not supported on the BIPU.

xIPU and IPT Program Update

To start updating the xIPU or IPT firmware, the update firmware files must be stored on FTP Server (see [Appendix B – Software and Firmware Updates on page B-1](#)). You can update the xIPU using Network eManager. You cannot update a BIPU-Q. If you need to update a BIPU-Q, return it to Toshiba.

Network eManager automatically disables the xIPU before any xIPU/IPT program update and preserves the initial state of the xIPU (idle or disable) after program update is done.

The xIPU program update has two processing options: sequential and simultaneous. If the FTP server is a CIX (SmartMedia) sequential processing must be used.

The IPT program update is performed sequentially only. A table sorted by xIPU shows a summary of the IPT selection. You can select multiple IPTs. You can change the selection at any time before the update process starts. The process flow is as follows:

- The xIPU corresponding to the first group of IPTs is automatically disabled (if its current status is idle)
- IPTs are updated one by one. Up to maximum 128 IPTs can be selected for one updating process.
- xIPU is re-enabled (if its initial state was idle)

These steps are repeated automatically until the entire user selection is processed.

Both the xIPU and IPT update pages have an **Abort** and **Abort All** button. The **Abort** button is available per item (xIPU, IPT), only when the current processing status allows the abort operation. Aborting the update process is allowed only in two phases “Getting the update file” and “Resetting.”

The **Abort All** button is available when an update is in progress. You can click on **Abort All** to abort all updates starting with the one currently processing. If abort operation is not allowed at the time, the message “Please wait while system has a chance to abort...” appears. All program update processes will be aborted when this is allowed by the CIX.

The synchronization between Network eManager and the CIX is not perfect during this process. Network eManager sends a command, then checks for the completion of the command. If you click on **Abort** at the end of the “Getting the update file” phase, Network eManager will abort in the next phase that abort is allowed, which is resetting.

FTP Server Information

CIX SmartMedia

When FTP server is CIX-SmartMedia, the files for xIPU/IPT program update must be stored in the PROGRAM folder on SmartMedia. xIPU/IPT screens will automatically fill the Directory field in the FTP information group using the name PROGRAM, and will provide a list box with the files that exist in this directory on Smart Media.

Network eManager Machine

When the FTP server is a Network eManager machine, the installation will create a physical directory under \Strata eManager named CTXIPUPDATE. This is the physical path you should indicate when creating CTXIPUPDATE virtual directory on the default FTP Site. The files for xIPU/IPT program update will be stored in CTXIPUPDATE directory on the Network eManager machine. xIPU/IPT pages will automatically fill the directory field in the FTP Server information group using the name CTXIPUPDATE and will provide a list box with the files that exist in this directory on the Network eManager machine.

External FTP

When FTP server is External FTP, not CIX - Smart Media, nor the Network eManager machine, users will have to provide all the information in the FTP information group.

Important! The External FTP Server must be used if IPT, BIPUs and/or Network eManager do not have the same subnet address.

Network eManager provides an External FTP list page to manage FTP information for External FTP servers. This page can be used to add, modify and remove FTP server information (user, password, IP address, directory and file) for External FTP servers or the Network eManager local machine. The information will be stored in a file on the Network eManager machine and will be provided in a selection window when the user clicks on External FTP on the xIPU/IPT pages. This eliminates the need to enter the same FTP information for External FTP servers each time the xIPU/IPT program update is run.

xIPU Program Update

Prerequisites

1. Make sure that the networking devices between xIPU and the FTP server meet the requirements for IP-CIX (min 100Mb/s switching hub(s)).
2. Create an account on the machine designated to be the FTP server.
3. Create an FTP virtual directory on the FTP server machine and specify the physical location of the updated file on the FTP server machine.
4. The FTP server machine IP address should be configured such that it is visible by the IPT IP address.

CAUTION! Do not run other updates simultaneously.

Programming

1. Select Maintenance > IP Firmware Update > L/M/B IPU Update.
2. Select card slot to be updated
3. Enter the FTP information.
4. Select xIPU Update option.
5. Click **Start** to begin the xIPU update.

FIELD	DESCRIPTION
User Name	Enter the name of a valid user account on the FTP server you select: Smart Media (CIX), Local eManager or external FTP server.
Password	Enter the password of a valid user account on the FTP server you select: Smart Media (CIX), Local eManager or external FTP server.
IP Address	Enter the IP address of a valid user account on the FTP server you select. For Smart Media, this is the IP address of the CIX. For Local eManager, this is the IP address of the Network eManager computer. For external FTP, this is the IP address of the computer used as the external FTP server.
Data Directory	This is the folder on the Smart Media card where the update file is stored. If the FTP Server is Local eManager or External Server this is a virtual FTP directory. The virtual directory path property indicates the physical location where the update file is stored.
File Name	Enter the name of the updated file (vmlinus).

External FTP List – Clicking the **External FTP List** button enables users to store external FTP server information.

FIELD	DESCRIPTION
FTP Account	
User Name	Enter the name of a valid user account on the external FTP server.
Password	Enter the name of a valid user account on the external FTP server.
Update File Location	
IP Address	Enter the IP address of the computer used as the external FTP server.
Data Directory	This is the folder on the Smart Media card where the update file is stored. If the FTP Server is Local eManager or External Server, this is a virtual FTP directory. The virtual directory path property indicates the physical location where the update file is stored.
File Name	Enter the name of the updated file.

IPT Program Update

The IPT program update function consists of retrieving the updated file from an FTP server, updating and rebooting the selected IPT.

CAUTION! Do not run other updates simultaneously.

Prerequisites

1. Make sure that the networking devices between xIPU, IPT and the FTP server meet the requirements for IP-CIX (min 100Mb/s switching hub(s)).
2. Create an account on the machine designated to be the FTP server.
3. Create an FTP virtual directory on the FTP server machine and specify the physical location of the updated file on the FTP server machine.
4. The FTP server machine IP address should be configured such that it is visible by the xIPU IP address.

Note Use the IP-B Prog. to update IP telephone sets connected to BIPU cards.
Use the IP-L Prog. to update the later IP telephone sets connected to MIPU/GIPU/LIPU cards.

Programming

1. Select Maintenance > IP Firmware Update > IPT B Update. Then select the BIPU card slot.
— OR —
Select Maintenance > IP Firmware Update > IPT_L/M/G Update. Then select xIPU card slot
2. Select IPTs to be updated.
3. Repeat step 2 and 3 for multiple updates.
4. Enter the FTP information.
5. Click **Start** to begin the IPT Program update.

Notes

- All selected IPTs are updated sequentially.
- Maximum of 128 IPTs can be selected in one IPT update process.

FIELD	DESCRIPTION
User Name	Enter the user name of the account created on the FTP server.
Password	Enter the password for the account created on the FTP server.
IP Address	Enter the IP address of the FTP server machine.
Data Directory	Enter the name of the FTP virtual directory on the FTP server.
File Name	Enter the name of the updated file (apph248.out).

This chapter covers a variety of services offered by Strata CIX. Automatic Call Distribution (ACD), Voice Mail, Destination Restriction (DR), Least Cost Routing (LCR), Networking, Station Message Detail Reporting (SMDR), External Devices, System Parameters and other miscellaneous services are discussed.

Important!

- Advanced Strata CIX programming topics are covered in this chapter. Programmers should make sure each section is thoroughly understood before proceeding to programming.
- Networking programs found in this chapter are not available with the Strata CTX28.

540, 541 Pilot DN Assignment

Prerequisite Program: None

Pilot DN's are directory numbers that have no physical appearance, they are true virtual numbers. They can be used in CTI and Voice Mail applications. In ACD, Pilot Numbers are used as ACD group numbers. In Voice Mail applications, Pilot DN's are used to call directly, or transfer calls directly to specific voice mail boxes – this is done by setting VM as the alternate destination and using the VMID to send the call to a specific VM box.

On Multi-Node, CIX Strata Net Networks, Pilot DN's must be unique throughout the entire network. A Pilot DN of a CIX Node must not be a duplicate of any other type of DN in any other CIX Node - DN types include PDN, PhDN, Hunt Group Pilot DN or other Pilot DN.

Maximum Pilot DN's

CIX40 = 90

CIX100, CIX200 and CIX670 Basic = 100; CIX 200 and CIX670 Expanded = 256.

CIX1200 Basic = 100; CIX1200 Expanded = 256

1. Select Station > Pilot DN.
2. Enter a Pilot DN Number or click one of the following buttons:
 - **List** – view a summary list of programmed Pilot DN's.
 - **Create** – Assign a new Pilot DN with default settings.
 - **Copy** – Enter a Pilot DN number and click **Copy** to make a new Pilot DN assignment with settings copied from the Pilot DN entered.
 - **Delete** – Enter a Pilot DN and click **OK**.
 - **Get Default** - sets all data to factory defaults.
3. Enter Program 540 data.
4. Click **Submit**.

Field	DESCRIPTION
Pilot DN	<p>Pilot DNs are directory numbers that have no physical appearance - they are true virtual numbers. They can be used in CTI and Voice Mail applications. In ACD, Pilot Numbers are used as ACD group numbers. In Voice Mail applications, Pilot DNs are used to call directly, or transfer calls directly to specific voice mail boxes – this is done by setting VM as the alternate destination and using the VMID to send the call to a specific VM box.</p> <p>Possible values: Maximum characters for Pilot DNs: CIX40 = 90 CIX100, CIX200 and CIX670 Basic: = 100, Exp: = 256 CIX1200 Basic = 100, Exp = 256</p>
01 Alternate Destination	<p>Calls to the Pilot DN will be routed to the alternate destination if the Pilot DN is not available (example: ACD after shift). If Dialing Digits is selected, enter the appropriate DN in the Alternate DN assignment.</p> <p>Possible values: No Data (default), Dialing Digits or Night Bell</p>
Alternate DN	<p>If Dialing Digits is selected as the alternate destination, enter the PDN, PhDN or hunt group pilot number to which the call should be routed.</p> <p>Possible values: Up to 32 ASCII characters (default = no value)</p>
02 Voice Mail ID	<p>If the alternate destination is voice mail, enter the voice mail ID that should be sent.</p> <p>Possible values: Up to 16 ASCII characters (default = no value)</p>

579 System Voice Mail Data

Prerequisite Program: None

This command assigns DTMF/SMDI Voice Mail interface parameters for the system.

1. Select > System > Voice Mail Data.
2. Enter Program 579 data.
3. **Get Default** - sets all values to factory defaults.
4. Click **Submit**.

FIELD	DESCRIPTION
01 DID/DNIS or DN VMID Option	<p>Select DN VMID to send the DN's VMID to voice mail on DID/DNIS calls that are answered and then transferred to a DN which then forwards to voice mail.</p> <p>Select DID/DNIS VMID to send the DID/DNIS number's VMID to voice mail on DID/DNIS calls that are answered and then transferred to a DN which then forwards to voice mail.</p> <p>Possible values: Before Answer Only (default), Before and After.</p> <p>If a DID/DNIS call is answered by a station and then transferred to a DN which then forwards to voice mail, the VMID of the DID/DNIS number (Program 309, field 11 or field 15) or the VMID of the forwarding DN (Program 200, field 19 or 206, field 06) will be sent to voice mail per this option.</p> <p>Note The DID/DNIS number's VMID (Prog 309, 11 or 15) is always sent to voice mail on DID/DNIS calls that ring directly to voice mail or ring a DN which then forwards to voice mail before it is ever answered.</p>
02 Cancellation Method for VM MW	<p>Select the method used to cancel voice mail message waiting indication.</p> <p>Possible values: Auto and Access Code Cancel or Access Code Cancel (default)</p>
03 Message Desk Number	<p>Enable sending of the SMDI Message Desk Number (001) in the SMDI packet; otherwise 000 for a station call or the 3-digit CO line number is sent.</p> <p>Possible values: Enable or Disable (default)</p>
04 Output of CLASS / ANI and DNIS	<p>Enable including Caller ID/ANI numbers in SMDR records.</p> <p>Possible values: Enable or Disable (default)</p>
05 Calling Number Digits Sent to VM	<p>Choose how many calling number digits are sent to VM unit.</p> <p>Possible values: 2~10 digits (default = 10)</p> <p>Note If 04 Output of CLASS / ANI and DNIS is enabled this value must be 10.</p>
06 Blank Digits Sent to VM	<p>Select SMDI-Bellcore Standard VM Interface.</p> <p>Possible values: 1 or 2 (default) - 1 = 1985 (single space), 2 = 1991 (two spaces)</p>
07 Auto Cancel of VM and MW	<p>Setting of auto cancel of VM and MW (this function is not currently supported).</p> <p>Possible values: Enable (default) or Disable</p>
08 DTMF Duration	<p>Select VM ID Code and System DTMF Signal Time.</p> <p>Possible values: 80 ms (default) or 160 ms</p>

FIELD	DESCRIPTION
09 Voice Mail Soft Keys	<p>Enables CIX Proprietary Integration for Soft Key Control of VM. CIX Proprietary Integration and Soft Key Control of Voice Mail requires an iES32 or Stratagy Enterprise Server Release 3.x or higher.</p> <p>Possible values: Enable (default) or Disable</p>
10 Central VM Callback	<p>Enter the pilot DN for the centralized voice mail system. If this field is left blank the previously stored number will be deleted.</p> <p>Possible values: Up to 7 ASCII characters (default = no value)</p>
11 CF - All Call Record	<p>Enter DTMF VMID prefix string for calls arriving to voice mail via "Call Fwd All Calls."</p> <p>Possible values: Up to 4 ASCII characters (default = 91)</p>
12 CF - Busy Record	<p>Enter DTMF VMID prefix string for calls arriving to voice mail via "Call Fwd Busy."</p> <p>Possible values: Up to 4 ASCII characters (default = 91)</p>
13 CF - No Answer Record	<p>Enter DTMF VMID prefix string for calls arriving via "Call Fwd No Answer."</p> <p>Possible values: Up to 4 ASCII characters (default = 91)</p>
14 Direct Call	<p>Enter DTMF VMID string for a call arriving at the voice mail as a Direct Call.</p> <p>Possible values: Up to 4 ASCII characters (default = 91)</p>
15 Retrieve Messages	<p>Enter DTMF VMID string for calls arriving at the voice mail to retrieve messages.</p> <p>Possible values: Up to 4 ASCII characters (default = 92)</p>
16 Transfer Direct to VM DN	<p>Pilot DN of the VM as a direct transfer destination.</p> <p>Possible values: Up to 7 ASCII characters (default = no value)</p>
17 Length of VM ID	<p>Select the number of characters in VMID string.</p> <p>Possible values: 1~10 (default = 10)</p>
18 SMDI Call ID Packet	<p>Enable - to send SMDI Call ID DC packet on Voice mail calls.</p> <p>Disable - do not send SMDI Call ID DC packet on Voice mail calls.</p> <p>This feature requires Stratagy R5 or higher. It should be enabled when using multi-language VM (French, Spanish, English, etc.) or other VM adaptability features.</p> <p>Possible values: Enable or Disable (default)</p>
19 SMDI ANI/CLID Digit Length	<p>Enter the number of digits to be sent to on the SMDI packet for Class, CLID, ANI, and DNIS numbers.</p> <p>Possible values: 2~20 (default = 10)</p>
20 Voice Mail Support on DP5000 Softkey	<p>Enable for support of voicemail on DP5000 softkeys. Disable for DKT3000 and 2000 telephones.</p> <p>Possible values: Enable, Disable (default)</p>
21 SMDI Time Stamp Packet	<p>When enabled, the CIX sends a timestamp packet through the SMDI link to the voice mail system. Used to keep the clock in the CIX and the Toshiba voice mail system in synch. Disable when using SMDI with non-Toshiba voice mail systems.</p> <p>Possible values: Enable/Disable</p> <p>Default value: Enable</p>

580 Voice Mail Port Data

Prerequisite Program: None

Assign characteristics of individual voice mail ports.

1. Select System > Voice Mail Port Data.
2. Enter a VM Port DN or click one of the following buttons:
 - **List** – view a summary list of programmed VM Port DNs.
 - **Copy** – Enter an VM Port DN value in the field with the same name. Click **Copy** to make a new VM Port DN assignment with settings copied from the port entered in VM Port DN.
3. Enter Program 580 data.
4. **Get Default** - sets all values to factory defaults.
5. Click **Submit**.

FIELD	DESCRIPTION
00 VM Port DN	Enter the DN of an individual VM port. For direct transfer to voice mail enter the remote Node ID and Pilot DN. Possible values: Up to 5 digits (default = no value)
01 Control Method	Specify In-band or SMDI integration. Select SMDI for remote voice mail. Possible values: Inband or SMDI (default = no value)
02 Send A/D Tone	Select whether Strata CIX sends A or D tone when a station connecting to voice mail answers or disconnects respectively. Possible values: Enable or Disable (default = no value)
03 Send B Tone	Enable Strata CIX to send B tones in the event of a Blind Transfer Recall. Possible values: B Tone, No Tone or B Tone and Extension Number (default = no value)
04 End-to-end	Enable Strata CIX to send DTMF tones to voice mail in response to key presses from a digital telephone. Possible values: Enable or Disable (default = no value)
07 VM to VM Call Blocking	Set to blocking to prevent Voice Mail Auto Attendant, supervised transferred, calls from forwarding back into Voice Mail. Possible values: Blocking or Non-blocking (default)

Destination Restriction/Least Cost Routing

Programming DR/LCR features in Strata CIX requires an advanced knowledge of telephone programming. Make sure you have a thorough understanding of the discussion that follows before attempting to program these features. For details on LCR, see [“LCR Overview”](#) on [page 9-12](#).

DR Overview

Strata CIX offers DR as a major expansion of traditional Toll Restriction. Toll Restriction is used to prevent the unauthorized use of toll prefixes to the PSTN as follows:

- 1 – long distance
- 0 – operator assistance
- 011 – international

Strata CIX has expanded this to include restriction based on any string of dialed digits. Strata CIX can restrict any string of up to 13 dialed digits including * and #.

Thirteen-digit screening allows control of access to individual telephone numbers in remote area codes. Restriction of *, # controls access to vertical service codes from the CO such as camp-on and call forwarding.

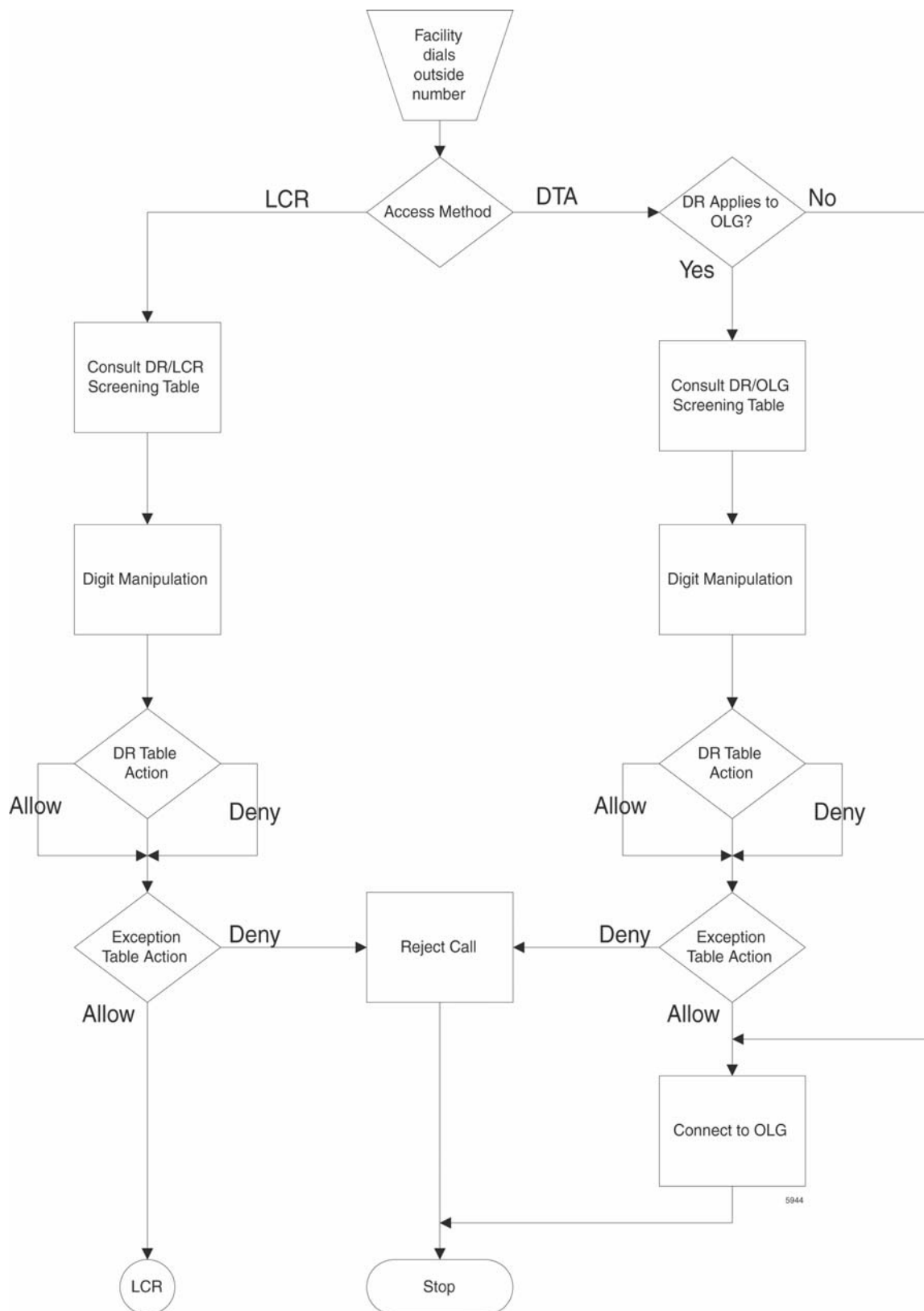
DR is always applied to calls originated through LCR and may be applied to calls originated through Trunk Group Access, Individual Trunk Access, CO Key, Group CO Key, Pooled Line Key, and Strata Net private networking. Special screening tables allow restriction of calls placed through Centrex or PBXs to which the Strata CIX may be connected.

Each OLG can be programmed to require or not require DR in [“306, 307 Outgoing Line Groups”](#) on [page 6-5](#). If a trunk group requires DR, a table must then be established using [“531 DR Screening Table for OLG”](#) on [page 9-25](#).

DR is controlled by a DR Level (DRL) that is assigned to any station or trunk capable of making an outside call. Each of the 16 DRLs relate to a DR Table. A DR Table may be an Allow or Deny table and may be associated with an Exception Table. A Deny Toll Restriction Table contains a list of dial strings that are prohibited. Its associated Exception Table lists the dial strings within the Deny Table ranges that would be allowed. For example, a Deny table might deny access to all of Area Code 1-800. Its exception table could permit access to specific office codes within that area such as 1-800-234.

Basic Operation

The flow chart below describes the basic logic by which calls are connected or rejected as a result of DR.



Tables

Strata CIX uses two or three tables to apply DR:

- Screening Tables. There are two types of screening tables as follows:
 - LCR Screening Tables.
 - OLG-Specific Screening Tables.
- DR Table or Exception Table to the DR Table.

Screening tables are used in Behind Centrex/PBX operations to detect access codes required by the Centrex/PBX and processes them appropriately in a way that is transparent to end users.

DR/LCR Screening

DR is applied to all LCR calls using [“530 DR LCR Screening Table Assignment”](#) on [page 9-24](#). It analyzes the digits dialed after the LCR access code (typically 9).

Example: A station user dials 9 *72 1-617-234-5678. The outgoing line will serve as an incoming line that this user is attempting to forward to his home. The system administrator has created an LCR/Screening entry to prevent the forwarding of this line to the user's home. With Skip & Apply under DR action and a Skip Length of 0, the call will be forced to present *72 to the DR table where the call will be rejected. Apply under LCR Action ensures that the entire string will be processed by LCR. In this case, Digit Modification is irrelevant.

DR Screening for OLG Table

An OLG-specific DR Screening Table is used when a call is originated through a Line Key, Pooled Line Key, Group CO Key, Trunk Group Access Code or Direct Trunk Access Code and a CO line is chosen that requires DR. The decision to apply DR to an OLG is made in [“306, 307 Outgoing Line Groups”](#) on [page 6-5](#). If the OLG does not require DR, the call is connected to the desired line and all dialed digits, minus the Strata CIX access code, are sent.

The OLG-specific table performs two functions:

- It manipulates the digits that will be screened by the DR table.
- It creates a Pause Value that ensures that the Centrex or PBX which is the source of the trunk will receive and interpret the digits correctly. This is used to compensate for older, slower equipment.

Example: A station user dials 81-9-1-617-234-5678 where 81 is the Trunk Group Access Code for a Centrex trunk group. 9 is the Centrex LCR access code. The Skip Length of 1 tells the system how many of the first digits constitute an access code or other digits that may be ignored. The DR Action of Skip & Apply tells the system to ignore the 9 and present 16172345678 to the DR Table used in the next step in the process. The Pause Value of two seconds tells the system that, if it passes the DR Tables and is connected to a trunk, it is to pause two seconds after outdialing the 9 and before outdialing 16172345678.

DR Table

Each DRL is associated with a DR Table that defines the destinations to which a holder of that DRL is entitled to place a call. Permission may be expressed in Allow or Deny tables. The DR Table is activated by defining the table as Allow or Deny through [“523 LCR Route Plan Schedule Assignments”](#) on [page 9-21](#). The table is then populated one string at a time through [“533 DRL Table Assignment”](#) on [page 9-26](#). The table may have up to 100 entries. Entries may include any DTMF character including * and #.

As soon as Strata CIX finds a match in the table, it acts upon it. Therefore, entering 1 in a Deny table will deny all 1+ calling to users with that DRL whereas entering 1-888 denies calls to the 888 Area Code. Exceptions can be created in the DRL Exception Table.

DRL Exception Table Assignment – Once a DR Table has been established for a DRL, its exception table can be created using [“534 DRL Exception Table Assignment”](#) on [page 9-27](#). Exceptional DR Tables are optional. Dial strings in Exception tables may be as long as 11 digits. If it was desired to deny access to every office code in the 617 area code except Directory Assistance, one would first create a deny table that included 617 and then create an associated exception table that allowed 617-555-1212.

Interaction With Other Features

Behind Centrex Operation

Behind Centrex operation for OLGs is defined in [“650 Behind Centrex Assignment”](#) on [page 9-46](#). The CIX will use the values stored here to strip local and Centrex access codes from the dial string and determine the external number being dialed. This external number will then be processed according to the DR rules described above.

Note The Centrex to which the OLG is attached may impose its own DRs.

Credit Card Calling

If a valid credit card number is detected, the CIX will not apply DR to a call because the charges for such a call are applied to the credit card rather than the outgoing line used.

Destination Restriction Guide Page

Use the Destination Restriction (DR) guide pages to program Destination Restriction.

1. Click LCR/DR > DR Guide Page.

The Destination Restriction Guide Page opening screen displays.

2. Click on any Program number to start using the Guide page.

Note Every Guide Page has Back and Next buttons to help you navigate to the previous and next programs in a group.

The Program at the end of a group has a Guide Page button instead of a Next button to take you to the main Destination Restriction Guide Page.

DR Dialing Setup

Program 530 – DR/LCR Screening table.

Use this program to define special dialing codes that are normally dialed in front of telephone numbers (example *82, *67). It defines what DR and LCR action should be applied after users dial the special code (Bypass or Skip and Apply DR).

Programs 531 / 650 – Centrex/PBX DR Screening table.

Use this program to define Centrex/PBX line access codes. It defines what DR action should be applied after users dial the Centrex/PBX line access code (Bypass” or Skip and Apply DR). It is also used to assign OLG to this table and/or enable Centrex assume 9 dialing.

Program 117 – Public Dial Plan Digit Analysis.

Use this program to prevent standard telephone users from avoiding DR by sending DTMF tones to the PSTN before DR analysis is complete. In LCR applications, it allows calls to cut through to the PSTN immediately so users do not have to wait for a pause timer to cut through after dialing a number.

DR Digit Table Setup

Programs 111 / 532 / 533 / 534 – DRL Assignments.

Use this screen to define Destination Restriction tables for each DRL. It combines the following programs into a single screen for viewing, editing and copying DR tables.

111 - Used to define if the DRL allows credit card calling or not.

532 - Used to define each DR table as an Allow or Deny table.

533 - Used to add or delete digit strings from DR Exception Tables and copy selected digit strings from one DR Exception table to another DR Exception table.

534 - Used to add or delete digit strings from DR Exception Tables and copy selected digit strings from one DR Exception table to another DR Exception Table.

Table 9-1 DRL Dial String Template

DRL	Allow/Deny/Exception	Dial String	Comments
DRL1	Deny	Nothing	Deny nothing so all calling is allowed
DRL10	Allow	Nothing	Allow nothing so all outbound calls are restricted
DRL11	Deny	1, 809, 900, 976, NXX976	Denies long distance calls, pay per service toll calls, except for toll free calls and allows local calls
	Exception	1800, 1877, 1888	
DRL12	Deny	011, 1809, 1900,1976, 809,900, 976, 1NXX976, NXX976	Allows local and long distance calls, restricts pay per service toll calls, and restricts international calls

DR Class of Service Setup

Program 103 – Class of Service (COS).

Use this screen to set COS options that are related to DR and other outgoing call features.

Program 200 / 260 – Station Data.

Set the COS options that are related to DR and other outgoing call features.

Program 105 – System Parameters.

Set the system parameters related to DR and other outgoing call options.

Program 510 – Class of Service.

Setup override codes for DRLs and other related features. Override code digit length must be defined in Program 105-15, System Parameters. This feature is described as Traveling Class Override in the telephone user guide.

Program 509 – System Speed Dial DRL level.

Set the DRL, COS, FRL and OPL level that should be applied when users dial outgoing calls using system speed. This must be enabled in 105-09, system parameters.

Program 306 – Outgoing Line Groups.

Set Station options that are related to DR and other outgoing call features.

LCR Overview

LCR Analysis Process

The flowchart below represents the process by which the Strata CIX analyzes dialed digits and makes LCR decisions. The graphic is divided into four areas each described below. DR and call connection are described elsewhere in this document and are shown here only for their roles in the LCR process.

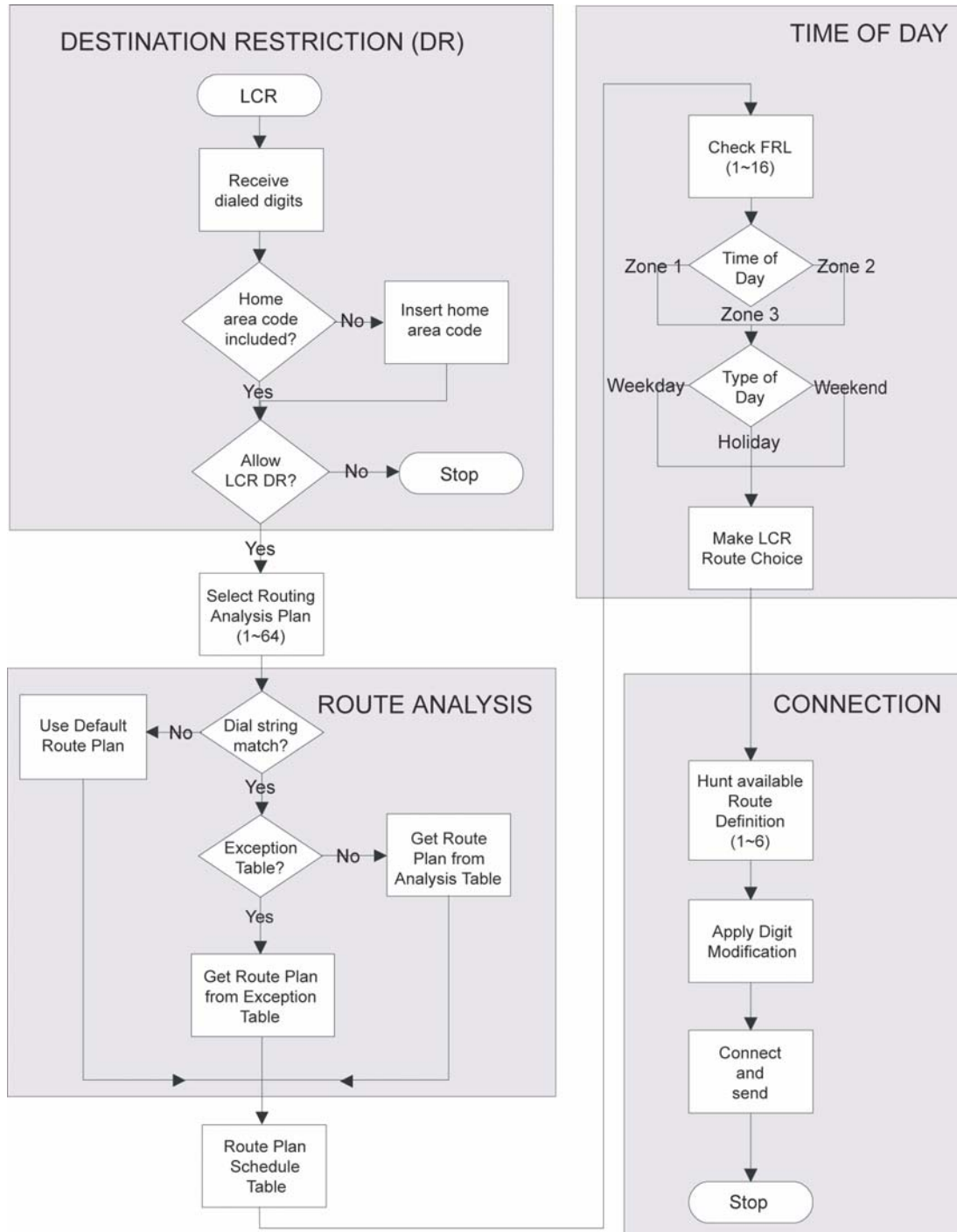


Figure 1 LCR Analysis Process Flow

DR

LCR begins with the receipt of a dial string from a facility capable of originating an outgoing call: station, automated attendant, Tie trunk, DISA trunk, DID trunk, etc. The dial string is identified as an LCR call by the presence of the LCR feature access code—typically 9. The LCR access code is removed and the remaining external digits are processed.

Route Analysis

Route Analysis chooses a route plan based on the dialed digits. The Routing Analysis Plan becomes the index into the time/date calculations described in the next section. If the Strata CIX is unable to match the dial string, it uses the default route plan which assures a route out of the system. If a match is found, the CIX determines if an exception table is associated with the dial string. If the dial string appears in the exception table, the call is assigned to the route plan stored in the exception table. Otherwise, the route plan stored in the initial table is used.

Time of Day

The Strata CIX maintains time and day values for LCR separate from those for the general system. One day can be divided into three zones, and each day can be categorized as a Weekday, Weekend, or Holiday.

Connection

Selection of a Route Choice Table begins the process of actually connecting the call to an outgoing trunk. Each Route Choice Table consists of six route definitions which operate in terminal hunt fashion to select an OLG and to apply a digit modification treatment.

LCR Guide Page

1. Click LCR/DR > LCR Guide Page.
The Least Cost Routing Guide Page screen displays.
2. Click on any Program Number to start using the guide pages.

Note Every Guide Page has Back and Next buttons to help you navigate to the previous and next programs in a group.

The Program at the end of a group has a Guide Page button instead of a Next button to take you to the main Least Cost Routing Guide Page.

LCR Dialing Setup

Program 102 – Flexible Access Codes

Use this program to change the LCR access code. The default LCR access code is 9. You can change the default access code to any number from 0~9, *, and/or #. Enter an access code number that does not conflict with the existing numbering plan.

Program 530 – DR/LCR Screening Table

Use this program to define special dialing codes that are normally dialed in front of telephone numbers (example *82, *67). It defines what DR and LCR action should be applied after users dial the special code (Bypass or Skip and Apply DR).

Program 117 – Public Dial Plan Digit Analysis

Use this program to prevent standard telephone users from circumventing DR by sending DTMF tones to the PSTN before DR analysis is complete. In LCR applications, it allows calls to cut through to the PSTN immediately so users do not have to wait for a pause timer to cut through after dialing a number.

LCR Route Plan Setup

Program 520 – LCR Local Route Plan Assignments

Use this program to select which LCR route plan is used for local calls.

Programs 521/ 522– Route Plan Digit Analysis Table

Use this program to assign Analysis and Exception digits (digit strings) to route plan tables.

This screen enables you to view, add and delete Analysis Digits and Exception Digits.

Programs 526 / 525 – Route Definition and Modified Digits Assignments

Use these programs to assign OLG groups and modified digit tables to Route Definitions.

Program 524 – Route Choice Table Assignments

Use this program to assign Route Definitions to Route Choice Tables.

Note Double click a row to activate the **Add**, **Modify** and **Delete** buttons.

Program 523 – LCR Route Schedule Assignments

Use this program to define the Route Schedule for each Route Plan.

Table Buttons on the LCR Route Schedule Screen

Notes

- Clicking table buttons display exclusive and dynamic tables. You can move these tables anywhere on the screen by clicking the blue title bar and dragging it to a desired location.
- The tables are dynamic because you can click on any route plan on the 523 LCR Route Schedule Assignment screen and notice the table information change to pertain to that route plan.
- Route/Plan Choice – Click this button to view route plans and route choice. This table combines all information found in the Route Plan Analysis Digits table and Route Choice Definition table on a per Route Plan basis.
- Route Plan Analysis Digits – Click this button to view the Route Plan Analysis table.
- Route Choice Definition – Click this button to view the Route Choice Table view.
- Station LCR Group – Click this button to view the Station LCR Group table.

LCR Day of Week and Time Zone Setup

Program 528 – LCR Days of the Week Assignments

Use this program to assign each day of the week as a Weekday, Weekend or Holiday.

Program 529 – LCR Route Time Zone Assignments

Use this program to define Route Plan day types and time zones.

Program 527 – LCR Holiday Assignments

Use this program to assign which days of the year should follow LCR Holiday routing assignments.

LCR COS and Station Setup

Program 103 – Class of Service

Use this program to enable or disable LCR in COS feature sets.

Program 200 / 260– Station Data

Use this program to assign stations to COS feature sets and LCR station groups.

LCR/DR

LCR Assignment

Program Number(s): 520, 521 and 522

User access to LCR is determined by programming the following:

- **103 COS Assignment** – 29 LCR Feature (see [page 4-9](#)) enables access to LCR COS.
- **200 Station Assignment** – 07 LCR Group (see [page 5-1](#)) assigns a station to an LCR Group.
- **304 ILG Assignment** – 23 LCR Group (see [page 6-1](#)) assigns an LCR Group to an ILG.

Note Appropriate COS, DRL and FRL assignments must be made to all LCR stations and trunks.

1. Click Advanced Configuration > LCR/DR > Assignment.
2. Enter Program 520 data.
3. Enter Program 521 data.
4. Enter Program 522 data.
5. **Get Default** - sets all data to factory defaults.
6. Click **Submit**.

520 LCR Local Route Plan Assignment

Prerequisite Program: None

This assignment is used to select which of 64 LCR Route Plans should be used to route local calls. The Local Route Plan, which must be defined in the route definition assignment, determines which CO line group is used for local outgoing calls.

FIELD	DESCRIPTION
01 Local Area Code	Enter the 3-digit area code for the dialing area where the system is installed. This is the area code of the CO that provides local CO lines to the system. If no data is entered in this field, any previously programmed data is lost. Possible values:3 digits (default = no value)
02 Local Route Plan	Enter the LCR route plan number to be used to route local calls. Local calls are made by dialing 7-digit public telephone numbers not requiring an Area Code. Total Route Plans available for CTX28, CIX40, CIX200 and CIX670 basic or expanded is 64. Total Route Plans available for CIX1200 Basic or expanded is 128
03 LCR Campon	Enable - to camp-on to a line group when all lines in the group selected by LCR are busy - this will send ringback tone to the user and the user will be camped-on to the busy line group until a line becomes available to make the outgoing call. Disabled - to not camp-on to a busy line group when using LCR. Will send busy tone to the user when using LCR and all lines in the selected line group are busy. The user does not camp-on to the line group and will have to try to make the call again. Possible values:Enable or Disable (default)

521 LCR Route Plan Digit Analysis Assignment

Prerequisite Program: 520 [page 9-16](#)

This command assigns number to the Route Plan Analysis Table.

FIELD	DESCRIPTION
00 Analysis Digits	<p>Enter the external digit strings (area codes, toll prefixes, service codes, etc.) to be assigned to a Route Plan.</p> <p>A Route Plan Analysis Table may have up to 1280 members in CTX28, CIX40, CIX100, CIX200 and CIX/670 basic and expanded.</p> <p>A Route Plan Analysis Table may have up to 2500 members in CTX28, CIX40, CIX100, CIX200 and CIX/670 basic and expanded.</p> <p>A digit string can only be in one table at a time.</p> <p>Digits may include wild cards 'X' and 'N' where X = 0~9 and N = 2~9.</p> <p>A digit string may be up to 7 digits for CTX28, CIX40, CIX100, CIX200 and CIX/670 basic and expanded.</p> <p>A digit string may be up to 19 digits for CIX1200 basic and expanded. (default = no value)</p>
01 Route Plan Number	<p>Enter the LCR route plan number that should be used.</p> <p>Total Route Plans available for CTX28, CIX40, CIX200 and CIX670 basic or expanded is 64.</p> <p>Total Route Plans available for CIX1200 Basic or expanded is 128.</p> <p>Entering Remove deletes the Analysis Digits from the table where they had been assigned.</p>



522 LCR Exception Number Route Plans

Prerequisite Program: 521 [page 9-17](#)

This command assigns up to 1280 dialed external digit strings to the LCR Route Plan Exception Analysis Table which assigns each string to 1 of 64 Route Choice Tables. The values expressed here are exceptions to the values established in Program 521.

FIELD	DESCRIPTION
00 Exception Digits	<p>Enter the external digit strings (area codes, toll prefixes, service codes, etc.) to be assigned to a Exception Plan Analysis Table.</p> <p>Strings may be up to 19 digits long.</p> <p>An Exception Plan Analysis Table may have up to 1280 members in CTX28, CIX40, CIX100, CIX200 and CIX/670 basic and expanded.</p> <p>An Exception Plan Analysis Table may have up to 2500 members in CIX1200 basic and expanded.</p> <p>A digit string can only be in one table at a time.</p> <p>Digits may include wild cards 'X' and 'N' where X = 0~9 and N = 2~9. (default = no value).</p>
01 Exception Route Plan	<p>Enter the LCR route plan number that should be used.</p> <p>Total Route Plans available for CTX28, CIX40, CIX200 and CIX670 basic or expanded is 64. Total Route Plans available for CIX1200 Basic or expanded is 128.</p> <p>Entering Remove deletes the Exception Digits from the table.</p>

Route Define

Program Number(s): 524, 525 and 526

Define the participants in the LCR Route Plan.

1. Select LCR/DR > Route Define.
2. Enter Program 524 data.
3. Enter Program 525 data.
4. Enter Program 526 data.
5. **Get Default** - sets all data to factory defaults.
6. Click **Submit**.

524 Route Table to Route Definition Assignment

Prerequisite Program: 525 below

This command defines up to six possible Route Definitions for a given Route Table.

FIELD	DESCRIPTION
00 Route Choice Table	Enter the Route Choice Table to be defined. Possible values: 1~128(default = no data)
01 Route Definition 1	Enter Route Definitions to be assigned to this Route Table.
02 Route Definition 2	Possible values: 1~128, 0 = Delete (default = no data)
03 Route Definition 3	
04 Route Definition 4	
05 Route Definition 5	
06 Route Definition 6	

- Notes**
- For Field 01 Route Definition 1 enter the First Choice Route.
 - For Field 02 Route Definition 2 enter the Second Choice Route.
 - For Field 03 Route Definition 3 enter the Third Choice Route.
 - For Field 04 Route Definition 4 enter the Fourth Choice Route.
 - For Field 05 Route Definition 5 enter the Fifth Choice Route.
 - For Field 06 Route Definition 6 enter the Sixth Choice Route.



525 LCR Route Definition Assignment

Prerequisite Program: 520 [page 9-16](#)

This command assigns Route Definitions for LCR. A Route Definition consists of an OLG and a Digit Modification index.

FIELD	DESCRIPTION
00 Route Definition	Select the Route Definition number. Possible values: 1~128 (default = no data)
01 OLG Number	Select the OLG Number associated with this Route Definition. "0" means no data. Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = no data)
02 Digit Modification Index	Select the Digit Modification Index associated with this Route Definition. Possible values: 1~128 (default = no data) "0" means no data.

526 Modified Digits Table Assignments

Prerequisite Program: 521 [page 9-17](#)

This command modifies LCR dialed numbers by deleting digits from, and adding digits to, the dialed numbers.

FIELD	DESCRIPTION
00 Digit Modification Index	Select the Digit Modification Index used by the LCR Route Choice table to determine the digit modification treatment to be applied. Leading digits of a dialed number may be deleted; leading and trailing digits may be added to the dialed number. Possible values: 1~128 (default = no value)
01 Delete Digits	Select the quantity of digits to be deleted from the beginning of dialed number. Possible values: 0~20 (default = 0)
02 Add Leading Digits	Enter the digit string (up to 23 characters) to be inserted at the beginning of the number. This can include pauses, and links to a maximum of 8 authorization codes. Possible values: Up to 23 ASCII characters (default = no value)
03 Add Trailing Digits	Enter the digit string (up to 23 characters) to be inserted at the end of the number. This can include pauses, and links to a maximum of 8 authorization codes. Possible values: Up to 23 ASCII characters (default = no value)

Route Schedule

Program Number(s): 523 and 528

1. Select LCR/DR > Route Schedule.
2. Enter Program 523 data.
3. Enter Program 528 data.
4. **Get Default** - restores all data to factory defaults.
5. Click **Submit**.

523 LCR Route Plan Schedule Assignments

Prerequisite Program: None

This command assigns Route Plan Schedule Tables for LCR. Each table is a 3-dimensional array of 144 values (3 Types of Day x 3 Times of Day x 16 LCR Groups).

FIELD	DESCRIPTION
00 Route Plan	Enter the Route Plan Number for which to build a schedule indexed by Time of Day, Type of Day and LCR Group. Enter the LCR route plan number that should be used. Total Route Plans available for CTX28, CIX40, CIX200 and CIX670 basic or expanded is 64. Total Route Plans available for CIX1200 Basic or expanded is 128. Entering "0" deletes the Exception Digits from the table. (default = no value)
01 Type of Day	Select the Type of Day. Possible values: Weekday (default), Weekend or Holiday
02 LCR Time of Day	Select the Time Zone. Possible values: Time Zone 1, Time Zone 2 or Time Zone 3 (default = no value)
03 Station LCR Group	Select the Station LCR Group. Possible values: 1~16 (default = 1)
04 Route Choice Table	Enter the Route Choice Table Number to be used with this combination of time, type and LCR group. Possible values: 1~128, delete (default = 1)



528 LCR Public Day of Week Mapping Table

Prerequisite Program: 520 [page 9-16](#)

This command defines the days of the week as weekdays, weekend days or holidays for LCR.

FIELD	DESCRIPTION
01 Monday	Select the Day Type to assign to this day.
02 Tuesday	Possible values: Weekday (default), Weekend or Holiday
03 Wednesday	
04 Thursday	
05 Friday	
06 Saturday	Select the Day Type to assign to this day. Weekday, Weekend (default) or Holiday
07 Sunday	Select the Day Type to assign to this day. Weekday, Weekend (default) or Holiday

Public Holidays and LCR Time Zones

Program Number(s): 527 and 529

1. Select LCR/DR > LCR/Holiday Time.
2. Enter Program 527 data.
3. Enter Program 529 data.
4. Click **Submit**.

527 LCR Holiday Table

Prerequisite Program: None

This command assigns up to 128 holidays for LCR processing. These assignments are related to the day assignments established in Program 523.

FIELD	DESCRIPTION
00 Holiday	Enter Date (YYYYMMDD). A maximum of 128 dates is allowed. Possible values: YYYY = Year, MM = Month and DD = Day (default = no value)
01 Add/Delete	Choose to add or delete this date from the holiday table. Expired dates remain in the table unless deleted. Possible values: Add or Delete (default)

Services

529 LCR Route Plan Time Zone Assignment

Prerequisite Program: 520 [page 9-16](#)

Defines the time zones used by each route plan for each day type.

FIELD	DESCRIPTION
00 Route Plan	Select the LCR route plan number to assign to this time zone. Possible values: Total Route Plans available for CTX28, CIX40, CIX200 and CIX670 basic or expanded is 64. Total Route Plans available for CIX1200 Basic or expanded is 128. Entering "0" deletes the Exception Digits from the table. (default = no value)
01 LCR Day Type	Select a day type for which to define a time zone. Possible values: Weekday, Weekend or Holiday (default = no value)
02 LCR Time Zone	Select a time zone. Possible values: Zone 1, Zone 2 or Zone 3 (default = no value)
03 Start Time	Enter the start time for the selected time zone (hhmm). Note Enter your day type and time zone selections before entering data into this field. Possible values: hh = hour (0-23) and mm = minutes (0-59) (default = 0000)

LCR/DR Screening

Program Number(s): 530 and 531

These programs enable and set up screening for DR and LCR.

1. Select LCR/DR > LCR/Holiday Time.
2. Enter Program 530 and 531 data or click one of the following buttons:
 - **List** – view a summary list of programmed Screened Dial Strings or Behind Centrex Access Codes.
 - **Copy** – Enter a Screened Dial String or Behind Centrex Access Code in the field with the corresponding name. Click **Copy** to make a new assignment.
 - **Get Default** - sets all data to factory defaults.
3. Click **Submit**.

530 DR LCR Screening Table Assignment

Prerequisite Program: None

This command screens dialed digits for access codes such as Carrier Identification Codes or Behind Centrex/PBX access codes. Used only in LCR calls.

FIELD	DESCRIPTION
00 Screening Dial String	Enter the string of external digits to be screened. Possible values: Up to 7 ASCII characters (default = no value)
01 Add String to Table	Add the screening dial string to the DR LCR screening table. Possible values: Add or Delete (default)
02 Destination Restriction Action	Select DR Action. Possible values: Bypass (default) or Skip and Apply <ul style="list-style-type: none"> • Bypass – Do not apply DR. • Skip and Apply – Apply DR to the dialed digits excluding the number of digits specified in skip length.
03 Least Cost Routing Action	Select LCR Action. Possible values: <ul style="list-style-type: none"> • Apply – (default) Apply LCR to all of the external dialed digits. • Skip and Apply – Apply LCR to the dialed digits excluding the number of digits specified in skip length.
04 Digit Modification Action	Select Digit Modification application. Possible values: <ul style="list-style-type: none"> • Apply – (default) Apply digit modification from the first digit. • Retain – Retain the skipped digits and apply digit modification starting from the next digit specified by skip length. • Discard – Discard the skipped digits and apply digit modification starting from the next digit specified by skip length.
05 Skip Length	Specify the number of digits at the beginning of the dial string to be ignored before DR, Digit Modification, or LCR is applied. Possible values: 0~5, 0 = delete (default = 0)

531 DR Screening Table for OLG

Prerequisite Program: None

Assigns DR Screening Table for an Outgoing Line Group (OLG). Up to four codes may be assigned per line group. Used for outgoing calls other than LCR.

FIELD	DESCRIPTION
00 Outgoing Line Group	<p>Enter the OLG Number.</p> <p>Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>
01 Behind Centrex Access Code	<p>Enter the access code expected by an attached Centrex, PBX or Tie line.</p> <p>Possible values: Up to 8 ASCII characters (default = no value)</p>
02 Add or Delete Code	<p>Add or Delete the code entered above. Leaving the field empty removes an existing code. Activation requires entries in OLG Group number and 01 Behind Centrex Access Code above.</p> <p>Possible values: Add or Delete (default)</p>
03 DR Action for Centrex	<p>Apply DR to the dialed digits.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • Bypass (default) – does not apply DR. • Skip and Apply – applies DR to the dialed digits excluding the number of digits specified in Skip Length.
04 Skip Length	<p>Enter the number of leading digits to be ignored by DR.</p> <p>Possible values: 0~8 (default = 0)</p>
05 Pause Length	<p>Enter the length of the pause to be inserted between dialing digits.</p> <p>Possible values: 0~10 (default = 0)</p>

Destination Restriction

Program Number(s): 532, 533, 534 and 111

Assign Destination Restriction (DR) features for the Strata CIX.

1. Select LCR/DR > Destination Restriction.
2. Enter 00 DR Level (DRL).
3. Enter Program 532 data.
4. Enter Program 533 data. Click **List** to view a summary list of programmed Dial Strings.
5. Enter Program 534 data. Click **List** to view a summary list of programmed Dial Strings.
6. Enter Program 111 data.
7. Click **Submit**.

532 DRL Table Allow/Deny Definition

Prerequisite Program: 533 below.

Specify the Destination Restriction (DR) Table Type using this command.

FIELD	DESCRIPTION
00 Destination Restriction Level (DRL)	Select the DRL Number. Possible values:1 ~ 16 (default = no value)
01 Type of Table	Specify whether this DR Table is an allow table or deny table. Possible values:Allow or Deny (default)

533 DRL Table Assignment

Prerequisite Program: None

This program adds or deletes entries in the DR Table associated with the DRL entered in [Step 2](#) above.

FIELD	DESCRIPTION
00 Destination Restriction Level (DRL)	Choose the DRL. Possible values:1 ~ 16 (default = no value)
01 Dial String	Enter the string of dialed digits to be allowed or denied. Wild cards (X and N) can only be assigned through Network eManager, not the programming phones. Possible values:1~7 digits (default = no value)
02 Add/Delete	Add or delete the string entered in 01 Dial String above to the DR Table. Possible values:Add or Delete (default)

534 DRL Exception Table Assignment

Prerequisite Program: 533 above

Note In CTX software R1 ~ R1.2 this table only allows 11 digits. Starting with R1.3 and up 13 digits are allowed.

This program assigns a DRL Exception Table to an existing DRL table. If the DRL table is an allow table, its Exception Table must be a deny table and vice versa.

FIELD	DESCRIPTION
00 Destination Restriction Level (DRL)	Enter the DRL for which you want to populate an exception table. Possible values: 1~16 (default = no value)
01 Exception Dial String	Add the dial string you wish to be treated as an exception. Possible values: 1~ 7 digits may include wild cards "X" and "N" where X = 0~9 and N = 2~9.(default = no value)
02 Add/Delete	Add or delete the string entered in 01 DR exception table above to the DR exception table. Possible values: Add or Delete (default)

111 DR Level (DRL)

Prerequisite Program: None

This program enables credit card calling for a DRL.

FIELD	DESCRIPTION
00 Destination Restriction Level (DRL)	Enter the DRL number. Possible values: 1~16 (default = no value)
01 Credit Card Calling	Enable Credit Card Calling for this DRL. Possible values: Enable or Disable (default)

DRL Table View

The DRL table view enables you to view all programmed DRLs. This table is a read only table. To access the DRL table view, select > LCR/DR > DRL Table View.

See [Table Views](#) in Chapter 2 for table functionality.

Centrex/PBX Screening Table View

The Centrex/PBX Screening Table View enables you to the Centrex/PBX Screening table.

To access the Centrex/PBX Screening Table View, select LCR/DR > OLG Screening Table View.

See [Table Views](#) in Chapter 2 for table functionality.

Account Codes

Program Number(s): 570, 506 and 571

Assign Account Code data to Strata CIX.

Account Codes can be verified or unverified. Verified Account Codes simultaneously function as Authorization Codes. This is achieved by restricting a telephone's calling privileges so that it cannot complete a call without entering a code. The Strata CIX compares that code to entries in the table created below and raises the telephone's restrictions to permit the call. If the dialed code cannot be found in the table, the call will be rejected. The requirement to enter an account code is established in the telephone's Class of Service.

Unverified account codes do not affect restriction levels and simply report the account code dialed in the SMDR record for further processing by call accounting equipment.

All account codes in a CIX (verified or not) must have the same number of digits (Registered Digit Length, parameter 02, in Program 570 below).

The system can be programmed to verify only a portion of an account code (Verified Program Length, parameter 01, in Program 570 below). For example, a company may choose to identify its customers with four digit numbers but have an overall account code length of eight digits. Registered Digit Length would be eight and Verified Program Length would be four. Upon entry of the first four verifiable digits and then four random digits to fill out the required length, the call would be processed.

1. Complete the data sheet.
2. Select > LCR/DR > Account Codes.
3. Enter Program 570 data.
4. Enter Program 506 data. Click **List** to view a summary list of programmed Account Codes.
5. Enter Program 571 data.
6. **Get Default** - sets all data to factory defaults.
7. Click **Submit**.

570 Account Code Digit Length

Prerequisite Program: None.

Accounting Codes need to be specified for the number of digits that are expected to be used for registering a number. This allows dialing within Strata CIX to proceed automatically once the correct account code is dialed. The following numbers are then dialed digits used for making the phone call.

A second length is provided to allow the number of digits to be used for verification of the code to be less than the total code entered, thus the code may contain two parts, one required and one part optional to the user.

FIELD	DESCRIPTION
01 Verified Digit Length	<p>The Verified Digit Length sets the number of leading digits within an account code to be verified against the table built in 506 Verified Account Codes. The Verified Digit Length may be shorter than, or as long as, the Registered Digit Length.</p> <p>Note This field is not changed, when “506 Verified Account Codes” on page 9-30 are registered.</p> <p>Possible values: 4~15 (default = 4)</p>
02 Registered Digit Length	<p>The Registered Digit Length sets the number of digits in all account codes whether voluntary, forced and/or verified.</p> <p>Note The Registered Digit Length (field 02) must be greater than or equal to the Verified Digit Length (field 01).</p> <p>Possible values: 4~15 (default = 6)</p>
03 Call Forward External Override FAC	<p>Override Forced Account Code to allow Call Forwarding to an external destination. This applies to R2.22 MH233 and later software.</p> <p>Possible values: Enable - Allows calls to a Forced Account Code station to forward without entering an Account Code. Disable - Requires the caller to enter an Account Code before the call will forward. If a valid Account Code is not entered the call will disconnect.</p>

506 Verified Account Codes

Prerequisite Program: 570 [page 9-29](#)

This program adds or deletes entries in the DR Table associated with the DRL entered in [Step 2 on 9-26](#).

FIELD	DESCRIPTION
Verified Account Code	<p>Enter the code to be used as a valid accounting code that the user is expected to dial. The Registered Digit Length (field 02) must be greater than or equal to the Verified Digit Length (field 01).</p> <p>Number of Verified Account Codes per system: 135 (CIX/CTX100 & CTX28 & CIX40) 300 (CIX/CTX670 & CIX200 Basic) 1000 (CIX/CTX670 Exp) 300 (CIX200 Basic HCTU only) 4000 (CIX1200 Exp. HEXAU or HEXBU) Possible values:4~15 digits (default = 6)</p>
01 Verified Flag	<p>The Account Code Flag determines whether the number entered is used as a verified account code or not. Some applications may allow users to dial an account code which changes the restriction level for the call allowing it to be placed.</p> <p>Possible values:Set or No Set (default)</p> <p>Note To delete a Verified Account Code set this field to No Set.</p>
02 DRL	<p>This DRL is applied to a call when this Verified Account Code is entered. Possible values:0~16 (default = 0)</p>
03 FRL	<p>This FRL is applied when this Verified Account Code is entered. Possible values:0~16 (default = 0)</p>
04 Network COS	<p>This Network COS is applied when this Verified Account Code is entered. Possible values:1~32 (default = 1)</p>

571 Exception Numbers for Forced Account Codes

Prerequisite Program: 506 [page 9-30](#)

Up to four telephone numbers can be programmed as exceptions to the forced and /or verified account code entries (including 911). These special codes enable numbers to bypass the verification process and proceed unhindered.

FIELD	DESCRIPTION
01 Exception Number 1	Enter a Forced Account Code Exception.
02 Exception Number 2	Possible values:Up to 4 digits.
03 Exception Number 3	Exception 1 default = 911 Exception 2~4 default = no value
04 Exception Number 4	Note One of the assigned exception numbers should be 911. Exception numbers for forced account code fields cannot be duplicated.

509 DR Override by System Speed Dial

Prerequisite Program: 105 System Data

This command assigns the service class components that are used by Destination Restriction Override By Speed Dial. DR Override must first be enabled in Program 105, System Data.

1. Select > LCR/DR > DR Override by System Speed Dial.
2. Select the COS, DRL, FRL and QPL override values.
3. **Get Default** - sets all data to factory defaults.
4. Click **Submit**.

FIELD	DESCRIPTION
01 Override COS	Select the override COS value. Possible values: 1~32 (default =1)
02 Override DRL	Select the override DRL value. Possible values: 1~16 (default =1)
03 Override FRL	Select the override FRL value. Possible values: 1~16 (default =1)
04 Override QPL	Select the override QPL value. Possible values: 1~16 (default =1)

510 COS Override Assignment

Prerequisite Program: 105 System Data

Assigns the COS, FRL, DRL and QPL to be used by COS Override. If a COS parameter has been assigned in either the original or the override COS, it will be applied.

1. Select > LCR/DR > COS Override.
2. Enter Program 510 data or select a COS Override Index and click **Copy** to copy settings from the selected COS Override Index.
3. **Get Default** - sets all data to factory defaults.
4. Click **Submit**.

FIELD	DESCRIPTION
00 COS Override Index	Select the COS Override index. Possible values: 1~16 (default = no value)
01 COS Override Code	Select the COS Override Code as entered by users. If no data is entered in this field any previously entered data is erased. Possible values: Up to 8 ASCII characters (default = no value)
02 Set COS	Select COS number for this override code. Possible values: 1~32 (default = 1)
03 Set DRL	Select DRL number for this override code. Possible values: 1~16 (default = 1)
04 Set FRL	Select FRL number for this override code. Possible values: 1~16 (default = 1)
05 Set QPL	Select QPL number for this override code. Possible values: 1~16 (default = 1)
06 Set Network COS	Select Network COS index for this override code. Possible values: 1~32 (default = 1)

656 Node ID Assignment

System Availability: Not available with CTX28

Prerequisite Program: 102 [page 4-3](#)

This program assigns up to four network node IDs to process incoming network calls. Each node ID has an overlap code. Strata CIX will substitute the overlap code for the node ID before processing the call further. A network directory number consists of a node ID and the desired node.

1. Select > Strata Net > Node ID.
2. Enter Program 656 data.
3. Click **Submit**.

FIELD	DESCRIPTION
01 Primary Node ID	Enter the primary node ID for this node. This node ID identifies the node used for administering Strata Net. Possible values:Up to 6 digits (default = no value)
Primary Overlap Code	Enter the overlap code associated with the primary node ID. An overlap code is the string of digits that replaces the node ID to continue call processing. Possible values:Up to 4 digits (default = no value)
02 Local Node ID 2	Enter node ID 2 for this node. Possible values:Up to 6 digits (default = no value)
Overlap Code 2	Enter overlap code for node ID 2. Possible values:Up to 4 digits (default = no value)
03 Local Node ID 3	Enter node ID 3 for this node. Possible values:Up to 6 digits (default = no value)
Overlap Code 3	Enter overlap code for node ID 3. Possible values:Up to 4 digits (default = no value)
04 Local Node ID 4	Enter node ID 4 for this node. Possible values:Up to 6 digits (default = no value)
Overlap Code 4	Enter overlap code for node ID 4. Possible values:Up to 4 digits (default = no value)

Note The node ID can be one to six digits in length. The system uses most significant digit matching. The node ID leading digits must not conflict. For example if node ID 15 is assigned node ID 150 to 159 cannot be used. If node ID 135 is assigned node IDs 13 or 13xx cannot be used. See examples below:

Node ID 27xxx - IDs 27000 to 27999 - 1000 IDs Starting with the digits 27 are possible.
 Node ID 27xx - IDs 2700 to 2799 - 100 IDs Starting with the digits 27 are possible.
 Node ID 27x - IDs 270 to 279 - 10 IDs Starting with the digits 27 are possible.
 Node ID 27 - ID 27 - 1 ID Starting with the digits 27 is possible.

Note Node ID digits + DN digits must be seven digits or less.



670 Remote Node Data Assignment

System Availability: Not available with CTX28

This command assigns the Remote node data (requires R1.3 and higher).

1. Select > Strata Net > Remote Node Data.
2. Enter Program 670 data.
3. **Get Default** - sets all data to factory defaults.
4. Click **Submit**.

FIELD	DESCRIPTION
00 Remote Node ID	Enter the Remote Node ID for this node. Possible values: Up to 6 digits (default = no value)
01 Remote Node IP Address	Enter the remote node IP address. Possible values: Up to 15 digits (default = no value)
02 Remote Node Port Number	Enter the Remote Node port number for this node. Possible values: 0~65535 (default = no value)

651 Private Routing Plan Analysis

System Availability: Not available with CTX28

Prerequisite Program: 656 [page 9-33](#) and 306 [page 6-5](#)

Assigns the Node IDs to Route Choice Tables for Private Networking.

1. Select > Strata Net > Route Plan Analysis.
2. Enter the node ID number (six digit numeral) to add to the Private Routing Plan Analysis Table.
Click **List** to see a summary list of programmed Node IDs or click **Copy** to copy data from an existing node ID. **Get Default** sets all data to factory defaults.
3. Select the Private Route Choice Table in which to add the node ID entered in [Step 2](#) above. Possible values are 1~64, 0 = Delete and default = 0.
4. Click **Submit**.

FIELD	DESCRIPTION
00 Node ID	Enter the node ID to be associated with a private route choice table number. Possible values: 1~64 (default = no value)
01 Pvt Ntwk Route Choice Table Numbers	Enter the private route choice table number to be associated with this node ID. Entering 0 deletes the node ID. Possible values: 1~64, 0 = delete (default)

Private Route Choice Definition

System Availability: Not available with CTX28

Program Number(s): 653, 654 and 655

Use these command to define Private Network Routing parameters.

1. Select > Strata Net > Route Choice.
2. Enter Program 653, 654 and 655 data.
3. Select the Private Network.
4. **Get Default** - sets all data to factory defaults.
5. Click **Submit**.

653 Private Route Choice Table Assignment

Prerequisite Program: None

Use this command to define a Private Route Choice Table. A Private Route Choice Table contains up to six Route Definitions. The system will step through these route definitions in terminating hunt fashion to find a route to the desired private networking node. There may be up to 64 Route Choice Tables.

FIELD	DESCRIPTION
00 Pvt Ntwk Route Choice Table Number	Select the private network route choice table number. Possible values: 1~64 (default = no value)
01~06 Route Definition Tables	Select route definition tables 1~6 to be used for this private network route choice. Possible values: 1~64, 0 = delete (default)

654 Private Route Definition Table Assignment

System Availability: Not available with CTX28

Prerequisite Program: None

Use this command to define a Private Route Definition. A Private Route Definition consists of an OLG and a pointer to the private digit modification table that contains the dialed digits to be deleted and/or inserted before being communicated to the distant node.

FIELD	DESCRIPTION
00 Private Network Route Definition	Select the number of the Private Route Definition to be defined or deleted. Possible values: 1~64 (default = no value)
01 Outgoing Line Group	Select the OLG to be used by this route definition. Possible values: 0~32 (CIX100), 0~50 (CIX200, CIX670/CIX1200 Basic), 0~128 (CIX670 Exp, CIX1200 Exp A), 0~220 (CIX1200 Exp B) (default = 0)
02 Digit Modification Table	Select the Digit Modification Table to be used by this route definition. Possible values: 1~64, 0 = delete (default)

655 Private Network Digit Modification Table Assignment

System Availability: Not available with CTX28

Prerequisite Program: None

This command assigns Digit Modification Tables for Private Networking.

FIELD	DESCRIPTION
00 Private Network Digit Modification Table	Select the private network digit modification table to be defined. Possible values: 1~64 (default = no value)
01 Deleted Digits	Select the number of leading digits to be deleted. Possible values: 1~10, 0 = delete (default)
02 Insert Leading Digits	Select the leading digits to be inserted. Possible values: Up to 23 digits (default = no value)

Mapping

System Availability: Not available with CTX28

Program Number(s): 657, 658, 659 and 660

The following programs map network and primary COS, DRL, FRL and QPL settings to each other.

1. Select > Strata Net > Mapping.
2. Enter Program 657 data.
3. Enter Program 658 data.
4. Enter Program 659 data.
5. Enter Program 660 data.
6. **Get Default** - sets all data to factory defaults.
7. Click **Submit**.

657 Network COS Mapping Table

System Availability: Not available with CTX28

Prerequisite Program: None

This table maps a network COS received as part of a Traveling Class Mark to a local Class of Service for access to local services. There is no translation of outgoing network COS.

FIELD	DESCRIPTION
Ntwk COS	Enter the network COS to be mapped. Possible values: 1~32 (default = no value)
Local COS	Enter the Local COS to be used in place of the received network COS. Possible values: 1~32 (default = no value)
02 Off-hook Call Announce	Choose whether an incoming call with this network COS can activate OCA. Possible values: Enable or Disable (default)
03 System Speed Dial	Choose whether an incoming call with this network COS can use a system speed dial number to make an outgoing call. Possible values: Enable or Disable (default)
04 COS Override	Choose whether an incoming call with this network COS can use Class of Service Override. Possible values: Enable or Disable (default)
05 TGAC Override	Choose whether an incoming call with this network COS can override local trunk group access control. Typically an attendant function. Possible values: Enable or Disable (default)

658 / 659 / 660 Network DRL/FRL/QPL Mapping Tables

System Availability: Not available with CTX28

Prerequisite Program: None

These commands are used to establish two mapping tables to equate local DRLs, FRLs and QPLs with network DRLs, FRLs and QPLs for both outbound and inbound network calls.

FIELD	DESCRIPTION
Type	Select the network DRL/FRL/QPL type. Possible values: Outbound or Inbound (default = no value) <ul style="list-style-type: none"> Outbound – maps a local DRL/FRL/QPL to a network DRL/FRL/QPL. Inbound – maps a Network DRL/FRL/QPL to a local DRL/FRL/QPL.
Network DRL/FRL/QPL	Enter the network DRL/FRL/QPL (for outbound) you want to map to a local DRL/FRL/QPL. Possible values: DRL/FRL/QPL1~DRL/FRL/QPL16 (1~16 (default = 1))
Local DRL/FRL/QPL	Enter the Local DRL/FRL/QPL (for inbound) you want to map to the network DRL/FRL/QPL selected in the network DRL/FRL/QPL field above. Possible values: 1~16 (default = 1)

661 Network DN Table Assignment

System Availability: Not available with CTX28

Prerequisite Program: None

This program assigns the PDN, PhDN or Pilot DNs to a CIX node ID. This includes all DNs in all CIX nodes on the CIX network except the DNs in the node you are currently programming.

This enables someone in one node to call an extension in another node without having to dial the node ID number. The caller dials the extension and the system appends the node ID. This function is transparent to the caller and the dialed party. (See example following.)

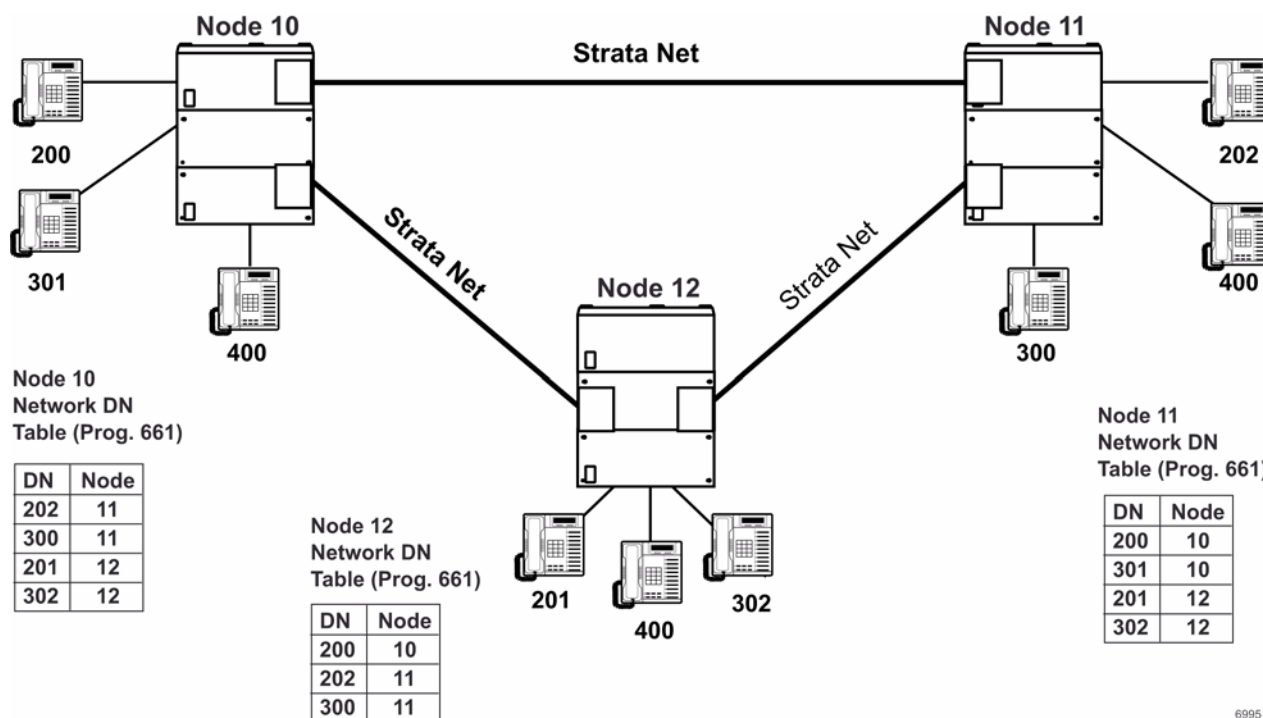
Capacity: CITX100, CIX200, CIX670 - 3000; CIX1200 - 6000

1. Select Strata Net > Network DN Setup > Network DN Assignment (Prog. 661), and enter a network DN followed by its node ID. Repeat this process for each DN.

FIELD	DESCRIPTION
00 Network DN	Enter the PDN, PhDN or Pilot DNs that should be assigned to a CIX node ID. This include all DNs in all CIX nodes on the CIX network except the DNs in the node you are currently programming. 6000 (CIX1200), 3000 (CIX200 and CIX670), 1000 (CIX100) Five digits max. (Default = No Data)
01 Node ID	Enter the CIX node ID that should be assigned to the DN. Possible values: Six digits max. (Default = No Data)

Example

Refer to the illustration below and this example: When programming the DNs for telephones in node 10, enter the DNs and their node ID numbers for DNs in nodes 11 and 12 into the network DN table, Program 661.



Notes

- If the same DN exists in more than one node (i.e., DN 400), it should not be placed in the node ID tables of any node. The user must dial the node ID where the DN is located plus the DN to call the DN.
- When using network DN tables for CIX networking assign the primary node ID in Program 656, but do not assign overlap codes.

The networking tables show the DN numbers and node ID that have been assigned.

219 Network DSS Notify Data Delete

System Availability: Not available with CTX28

This program lets you disable the DSS function for the node ID entered in this screen.

Important! Do not use this program unless requested by Toshiba Technical Support.

1. Select > Strata Net > Delete DSS Node ID.
2. Enter the node ID of the Network DSS key Notify Data to be deleted.

Strata Net Over IP

System Availability: Not available with CTX28

To use programs 671 and 672, refer to [“Strata Net over IP Programming Guidelines”](#) on [page A-21](#).

671 IP Address Convert Table

1. Select > Strata Net > Network Over IP. Go to the IP Route tab.
2. Enter Program 671 data.
3. **Get Default** - sets all data to factory defaults.
4. Click **Submit**.

FIELD	DESCRIPTION
Remote Node ID	Enter the node ID of the remote CIX that the primary CIX should route to in the IP private network. Possible values: Up to six digits (default = no data)
01 IP Address Route 1	Enter the IP address of the remote xIPU that should be routed to first. Possible values: Valid IP address
02 IP Address Route 2	Enter the IP address of the remote xIUP that should be used if all channels in the first xIUP route is busy or disabled. Possible values: Valid IP address
03 IP Address Route 3	Enter the IP address of the remote xIUP that should be used if all channels in xIUP Route 1 and 2 are busy or disabled. Possible values: Valid IP address
04 IP Address Route 4	Enter the IP address of the remote xIUP that should be used if all channels in xIUP Route 1, 2 and 3 are busy or disabled. Possible values: Valid IP address
05 IP Address Route 5	Enter the IP address of the remote xIUP that should be used if all channels in xIUP Route 1, 2, 3 and 4 are busy or disabled. Possible values: Valid IP address
06 IP Address Route 6	Enter the IP address of the remote xIUP that should be used if all channels in xIUP Route 1, 2, 3, 4 and 5 are busy or disabled. Possible values: Valid IP address

672, 673 Node ID Detail Information

System Availability: Not available with CTX28

This command assigns the parameters to be used by MIPU, GIPU, LIPU or BIPU-Q1As at the remote nodes connecting to the MIPU, GIPU, LIPU or BIPU-Q1A in the local node over IP Private Networking.

Important!

- These parameters must match all nodes on the IP network.
 - When setting node ID assignments on an Strata Net IP network, the node ID assignment settings for each node on an end-to-end connection must be the same.
 - Whenever node ID assignment changes are made for IP telephones or Strata Net IP Node IDs, Toshiba recommends pressing the **RESET** button on the BIPU to assure the changes take effect.
1. Select > Strata Net > Network Over IP - Detail Info tab.
 2. Enter Program 672 data.
 3. **Get Default** - sets all data to factory defaults.
 4. Click **Submit**.

FIELD	DESCRIPTION
Remote Node ID	Node ID of remote CIX connected to this CIX with xIUP, IP networking. Refer to Program 152. Possible values: Up to six digits (default = no data)
01 IP Protocol Type	Select the desired IP protocol to be used by the xIUP at the remote node. This parameter must match on both nodes of an end-to-end connection on the IP network. Possible values: Strata Net IP (default), H.323 (do not use; H.323 is not available)
02 Voice Packet Table	Select the desired voice packet configuration table number (programmed in this CIX) to be used by the BIUP-Q1A at the remote node. Voice Packet tables are configured in Program 152. Possible values: 1~128 (CIX100, CIX200, CIX670/CIX1200 Basic) 1~256 (CIX670/CIX1200 Exp.) (default = 1)
03 TCP Connection Release	Select whether to release TCP connection when the call was released. TCP release should be enabled for normal IP calling operation. This parameter must match on both nodes of an end-to-end connection on the IP network. Possible values: Enable (default) or disable Notes <ul style="list-style-type: none"> • If disabled, the TCP connection is connected continually. • This parameter is normally used with its default, which means TCP connection is established and released for each call. If there are only two nodes on Strata Net over IP network, this parameter should be set to Disable which means TCP connection is always established.

FIELD	DESCRIPTION
<p>04 H.323 Fast Connection</p>	<p>Fast connection should be enabled for H.323 protocol only when the remote end has this option enabled. This should be disabled for Strata Net IP Protocol.</p> <p>Possible values: Enable (default) or disable</p>
<p>05 Channel Negotiation</p>	<p>Select whether channel negotiation for Call Control is applied or not. This parameter must match on both nodes of an end-to-end connection on the IP network. This programming is applied only to H.323 protocol.</p> <p>Possible values: Enable or disable (default)</p>
<p>06 Audio Codec</p>	<p>Select the desired audio codec type.</p> <p style="text-align: center;">Important! G.711 must be used for transmission of end-to-end DTMF signaling. G.711 provides the highest voice quality but requires the most bandwidth.</p> <p>This parameter must match on both nodes of an end-to-end connection on the IP network.</p> <p>Possible values: G711 (default), G.711MU, G.711A, or G729A</p>
<p>07 DTMF Translation</p>	<p>Select of whether DTMF translation by the control channel is enabled or not. This parameter should be enabled when using G.729A codecs and disabled if using G.711 codecs for end-to-end DTMF signaling.</p> <p>This parameter must match on both nodes of an end-to-end connection on the IP network.</p> <p>Possible values: Enable or disable (default)</p>
<p>08 E911 Priority</p>	<p>If E911 calls originated from this CIX should be sent over the IP network to the selected remote node, enter the E911 priority assignment that should be used for the selected remote node. Assign 0 or 1~5.</p> <p>Assign 1, the highest priority, to the remote node that has the main CAMA or ISDN E911 connection; 2~5 reduces the E911 priority with 5 providing the lowest priority - these priorities should be used for alternate network routing of E911 calls.</p> <p>If E911 calls should not be sent over the IP network to the selected node, assign 0 as the E911 priority.</p> <p style="text-align: center;">Note If two or more remote nodes have the same priority, E911 calls will route to the CIX with the lowest node number.</p> <p>Possible values: 0 (default) ~5</p>

Miscellaneous

The Strata CIX system can monitor SMDR, Call History and Behind Centrex. Use the following programs to set up these services.

SMDR

The following enables programming for SMDR, Call History and Behind Connection settings.

Program Number(s): 512, 513 and 514

The following programs assigns system-wide SMDR parameters.

1. Select System > SMDR.
2. Enter Program 512 data.
3. Enter Program 513 data.
4. Enter Program 514 data.
5. **Get Default** - sets all data to factory defaults.
6. Click **Submit**.

512 SMDR for System Assignment

Prerequisite Program: None

Assigns system-wide SMDR parameters.

FIELD	DESCRIPTION
01 Caller ID Field	Include Caller ID records in SMDR. Possible values: Enable or Disable (default)
02 Record for Abandoned Call	Generate B Record for an abandoned call. Possible values: Enable or Disable (default)
03 Record ANI	Include ANI in SMDR record. Possible values: Enable (default) or Disable
04 Record Authorization Code	Include authorization codes in SMDR records. Possible values: Enable or Disable (default)
05 End-of-Record CR	Include a Carriage Return (CR) at the end of an SMDR record. Possible values: Enable (default) or Disable
06 Abandoned Call Ring Time	Enable - to output an SMDR call record of the ringing time of abandoned calls. Disable - to not output an SMDR call record of the ringing time of abandoned calls. Possible values: Enable or Disable (default)

FIELD	DESCRIPTION
07 Global Call ID Number	<p>Enable - allow the Global Call ID Number to be generated in the SMDR data. Disable - the Global Call ID Number will not be generated in the SMDR data.</p> <p>Note The Global Call ID data (15-digit hex characters) is located in columns 70-84 of the SMDR data stream in the following format: ZXXXXXXXXYYYYYYY Z represents the direction of the call (S=originate or source node in network call, D=destination node in network call, L=single node or non-Network call.) X represents the CIX node ID (6-digit hex characters) Y represents the call number (8-digit hex characters)</p>

513 SMDR for ILG Assignment

Prerequisite Program: None

This program assigns SMDR parameters for ILGs.

FIELD	DESCRIPTION
00 Incoming Line Group (ILG)	<p>Specify the ILG for which to set SMDR parameters.</p> <p>Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)</p>
01 Generate SMDR Records	<p>Enable to generate records for this ILG.</p> <p>Possible values: Enable (default) or Disable</p>
02 DNIS Field Indication	<p>Check to include DNIS information in records for this ILG.</p> <p>Possible values: Enable (default) or Disable</p>
03 Record Incoming Call	<p>Enable record generation for incoming calls with or without incoming SMDR being enabled.</p> <p>Possible values: Enable or Disable (default)</p>
04 Record Abandoned Calls	<p>Enable record generation for abandoned calls. Incoming SMDR must be turned on. Abandoned call records are generated whether or not incoming SMDR has been set.</p> <p>Possible values: Enable or Disable (default)</p>
05 Display Transferred Call Records	<p>Select whether to charge a transferred call to the source or destination party.</p> <p>Possible values: Source (default) or Destination</p>
06 Record QoS Information	<p>Enabling this options allows QoS information including delay, jitter and packet loss output to SMDR for incoming VoIP calls. Incoming SMDR must be turned on.</p> <p>Possible values: Enable or Disable (default)</p>

514 SMDR for OLG Assignment

Prerequisite Program: None

This command assigns SMDR parameters for OLGs.

FIELD	DESCRIPTION
00 Outgoing Line Group (OLG)	Specify the OLG for which to set SMDR parameters. Possible values: 1~6 CTX28, 1~32 CIX40, 1~32 CTX/CIX/100, 1~50 CIX200, 1~50 CTX/CIX 670 BCTU only or BBCU only, 1~128 CTX/CIX670 BCTU + BEXU or BBCU + BECU, 1~50 CIX1200 HCTU only, 1~128 CIX1200 HCTU + HEXAU, 1~220 CIX1200 HCTU + HEXBU (default = 0)
02 Outgoing Records	Generate records for outgoing calls. SMDR Record Display must be enabled. Possible values: Enable (default) or Disable
03 Charged Station	Apply the SMDR record of a transferred call to its source or its destination. Possible values: Source (default) or Destination
04 Abandoned Outbound Call	Record abandoned outbound calls Enable or Disable (default)
05 Record QoS Information	Enable this option to allows QoS information including delay, jitter and packet loss output to the SMDR for outgoing VoIP calls. Outgoing SMDR must be turned on. Possible values: Enable or Disable (default)

577 Caller History

Prerequisite Program: None

This command assigns which station stores Caller ID information for PDN,CO,GCO and POOL line buttons.

1. Select Station > Call History Store Terminal.
2. **Get Default** - sets all data to factory defaults.
3. Click **Submit**.

FIELD	DESCRIPTION
Ckt Type/Number	Enter the Circuit Type and number. See the Table 9-2 below. Possible values:Up to 6 digits (default = no value)
01 Primary DN	Enter Station DN for which to store call history data. Possible values:Up to 5 digits (default = no value)

Table 9-2 Circuit Type Code Definitions

Circuit Name	Circuit Type	Circuit Number	Example
DN	1	0~99999 (DN)	if DN is 200, value is 1200
CO	2	1~264 (Trunk Number)	if CO is 30, value is 230
GCO	3	1~128 (GCO Key Group Number)	if GCO is 50, value is 350
POOL	4	1~128 (POOL Key Group Number)	if POOL is 80, value data is 480

650 Behind Centrex Assignment

Prerequisite Program: None

This feature allows Strata CIX to connect to the station side of a PBX or Centrex using a physical loop trunk interface. DR and Least Cost Routing may need to account for access codes required by the PBX or Centrex before connecting to the public network.

1. Click Advanced Configuration > Miscellaneous > Behind Centrex Assignment.
2. **Get Default** - sets all data to factory defaults.
3. Click **Submit**.

FIELD	DESCRIPTION
00 OLG Number	Select OLG that is attached to a Centrex (or other PBX). Possible values:0~32 (CIX100), 0~50 (CIX200, CIX670/CIX1200 Basic), 0~128 (CIX670 Exp/CIX1200 ExpA), 0~220 (CIX1200 ExpB) (default = 0)
01 Behind Centrex	Enable Behind Centrex Operation for this OLG. Possible values:Enable or Disable (default)
02 Assume 9	Enable the Assume 9 feature. Possible values:Enable or Disable (default)
03 Pause Timer	Enter the number of seconds (0~5) the CIX will wait for second dial tone from Centrex/PBX. Possible Value: 0~5 (default = 0)

External Devices

Door Phones

Program Number(s): 507, 576, 573 and 508

This command assigns Door Phone parameters.

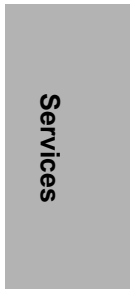
1. Select Station > Door Phones.
2. Enter Door Phone Number or click one of the following buttons:
 - **List** – View a summary list of programmed Door Phones.
 - **Create** – Assigns a new Door Phone with default settings.
 - **Copy** – Copies settings from an existing Door Phone.
 - **Delete** – Deletes a Door Phone.
 - **Get Default** - sets all data to factory defaults.
3. Enter remaining Program 507 data.
4. Enter Program 576 data.
5. Enter Program 508 data.
6. Click **Submit**.

507, 573 Door Phone Assignment

Prerequisite Program: None

This assignment configures Door Phone Control Boxes (DDCBs) and Door Phones (MDFBs). DDCBs can be connected to ADKU, PDKU and/or BDKU interface PCBs. Up to three MDFBs can be connected to one DDCB. A door lock control relay may be assigned to the B output of the DDCB in place of a MDFB door phone (see [“508 Door Lock Control Assignment”](#) on [page 9-50](#)).

FIELD	DESCRIPTION
00 Door Phone Number	<p>Enter the door phone number.</p> <p>Possible values: 1~6 (CIX40, CIX100), 1~9 (CIX200, CIX670/CIX1200 Basic), 1~24 (CIX670/CIX1200 Exp.), (default = no value)</p> <p>Door phone numbering for the CIX40, CIX100, CIX670 and CIX1200 is as follows:</p> <ul style="list-style-type: none"> • DDCB 1 provides door phone numbers 1~3, 2 can be a door phone or door lock. • DDCB 2 provides door phone numbers 4~6, 5 can be a door phone or door lock.



FIELD	DESCRIPTION
<p>01 DDCB Equipment No.</p>	<p>Door phone numbering for CIX200, CIX670/CIX1200 Basic is as follows:</p> <ul style="list-style-type: none"> • DDCB 3 provides door phone numbers 7~9, 8 can be a door phone or door lock. <p>Door phone numbering for CIX670/CIX1200 Exp. only is as follows:</p> <ul style="list-style-type: none"> • DDCB 4 provides door phones 10~12, 11 can be a door phone or door lock. • DDCB 5 provides door phones 13~15, 14 can be a door phone or door lock. • DDCB 6 provides door phones 16~18, 17 can be a door phone or door lock. • DDCB 7 provides door phones 19~21, 20 can be a door phone or door lock. • DDCB 8 provides door phones 22~24, 23 can be a door phone or door lock. <p>DDCBs are numbered by the system automatically by DDCB Equipment (Shelf/Slot/Circuit). DDCB1 is assigned to the lowest DDCB Equipment and DDCB2 to the next lowest, etc.</p> <p>If DDCB Circuit B is set to door lock, a door phone cannot be set.</p> <p>Enter the DDCB equipment number to which the door phone should be assigned.</p> <p>Enter data as XXYYZZ:</p> <p>XX = cabinet 01~07 YY = slot 01~10 ZZ = analog trunk circuit 01~08, or ZZ = T1 channel 01~24.</p> <p>Example: If a line should be assigned to an RCOU in cabinet shelf 5, slot 2, circuit 3, enter 050203.</p> <p>Cabinet numbers:</p> <p>CIX100: Select 01 for Base and Exp cabinet. CIX200: Select 01 for Base and 02 for Exp cabinet. CIX670: Select 01 for Base and 02~07 for each Exp cabinet. CIX1200: Select 01 for Base and 02~12 for each Exp cabinet.</p> <p>Slot numbers:</p> <p>CIX100: Select 01~04 for Base slots and 05~08 for Exp slots. CIX200: Select 01 ~ 04 for either cabinet. CIX670: Select 01~08 for Base slots and 01~10 for Exp slots. CIX1200: Select 01~08 for Base slots and 01~10 for Exp slots.</p>

FIELD	DESCRIPTION
02 Tenant Number	Enter the Tenant Number (1~8) for which the door phone should ring over external page in the system Night mode. All CIX systems provide up to 8 tenants. CTX Release 1.0 only supports Tenant 1). (default = 1)
04 Ring Duration	Enter the time in seconds that the door phone should ring destination devices when the door phone button is pressed. The ring time can be 3 to 30 seconds set in 3 second intervals - each 3 second interval provides one ring to the destination. Destination devices include selected DNs and page groups. Possible values: 3~30 (default = 9)
05 LCD Name Display	Enter the door phone name that should display on LCD telephones when the door phone rings the telephones, or when the telephone calls the door phone. Possible values: Up to 16 characters (default = no value)
06 Day1 Destination/ Destination Number	Select the type of destination that should ring when the door phone button is pressed during the system Day1, Day2 or Night mode. Possible values: None (default), DN or Paging Group 1~4 (CIX100); 1~8 (CIX200, CIX670/1200 Basic); 1~16 (CIX670 Exp), 1~24 (CIX1200 Exp)
07 Day2 Destination/ Destination Number	
08 Night Destination/ Destination Number	Enter the destination number. If the ring destination type is a PDN or PhDN, enter the directory number. If the ring destination type is page, enter the page group number. Possible values: Up to 5 ASCII characters (default = no value)

576 Door Phone Night Ring Over External Page

This assignment sets the Page Group that should ring during the system Night Mode when a door phone button is pressed. The assignment can be made for Tenant 1 only.

FIELD	DESCRIPTION
00 Tenant Number	Select the system tenant number to be assigned door phone to page group/night ringing. Possible values: 1(default)~8
01 Page Group Number	Select the system page group number that should ring for the selected tenant when a door phone button is pressed during the system night mode. Possible values: 0~4 (CIX100), 0~8 (CIX200, CIX670, C1200 Basic), 0~16 (CIX670 Exp), 0~24 (CIX1200 Exp) (default = 0)

508 Door Lock Control Assignment

This assignment is used to configure up to 10 door lock control relays. The contacts of these relays are used to control electrical door locks. One door lock relay can be assigned to each of the eight door phone control boxes (DDCB, Port -B) and/or one to each of the two BIOU PCBs (any one of the four control relays).

Note If a door lock is assigned to a DDCB, the second jack (Port B) will provide the door lock relay contacts. This jack can not be used to connect an MDFB door phone.

FIELD	DESCRIPTION
00 Door Lock Number	Enter the door lock control number to configure. Possible values: 1~3 CTX28, CIX40, 1~4 CIX100, 1~5 CIX670 Basic, 1~10 CIX670 and CIX1200 Expanded (default = no value)
01 Interface Type	Door lock control relay contacts are provided by the DDCB (Port - B) and BIOU interface control relays. Possible values: None (default), BIOU or DDCB
02 BIOU Relay Number	Assign BIOU control relay as a door lock relay. This relay activates when the door lock button is pressed or a door lock access code is dialed. Possible values: 0~8 (default = 0) BIOU1 provides control relays 1~4; BIOU2 provides control relays 5~8. Note Assign BIOU control relay (1~8) as a door lock relay - this relay activates when a door lock button is pressed or a door lock access code is dialed. BIOU1 provides control relays 1 to 4. BIOU2 provides control relays 5 to 8. The CIX100 ACTU and CIX200 built-in relays are programmed as relay 5.

FIELD	DESCRIPTION
03 DDCB Equipment No.	<p>Enter the DDCB equipment number to which the door lock should be assigned. This is the cabinet, slot, and circuit number of the BDKU/BDKS or PDKU interface PCB to which the DDCB is to be connected.</p> <p>Enter data as XXYYZZ:</p> <p>XX=cabinet 01~12 YY=slot 01~10 ZZ=circuit 01~16</p> <p>Example: If the DDCB interface should be connected to a ADKU, PDKU, BEDKU, or BDKU/BDKS in cabinet shelf 5, slot 2, circuit 3, enter 050203.</p> <p>Note Note: If a PDN is assigned to the DDCB equipment number it must be deleted, using PRG201, before attempting to assign the DDCB console.</p> <p>Cabinet numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01 for Base and Expansion cabinet. • CIX200: Select 01 for Base and 02 for Expansion cabinet. • CIX/CTX670: Select 01 for Base and 02~07 respectively for each Expansion cabinet. • CIX1200: Select 01 for Base and 02~12 respectively for each Expansion cabinet. <p>Slot numbers:</p> <ul style="list-style-type: none"> • CIX/CTX100: Select 01~04 for Base slots and 05~08 for Expansion slots. • CIX/CTX100: Virtual Slot for ACTU Relay = Cabinet 02, Slot 05. • CIX200: Select 01~04 for either cabinet. • CIX/CTX670: Select 01~08 for Base slots and 01~10 for Expansion slots. • CXI1200: Select 01~08 for Base slots and 01~10 for Expansion slots. • CTX28 and CIX40 assignments are hard coded cannot be changed. • Virtual Slot for GCTU Relay = Cabinet 02, Slot 05. <p>01, 01 - 8 digital telephones on motherboard (CTX28, CIX40 R1HW and R2HW).</p> <p>01, 02 - 3 CO lines on motherboard (CTX28, CIX40 R1HW), 4 CO lines (CIX40 R2HW)</p> <p>01, 03 - no card (CTX28, CIX40 R1HW), GVPH (CIX40 R2HW)</p> <p>01, 04 - 1 (Base) or 2 (GSTU) analog station ports (CTX28, CIX40 R1HW and R2HW)</p> <p>01, 05 - GVMU (CTX28), GVPH (CIX40 R1HW), GIPx, MIPU or GCOCIH (CIX40 R2HW)</p> <p>01, 06 - GIPx, MIPU16 or GCOCIH (CIX40 R1HW), no card (CTX28, CIX40 R2HW)</p> <p>01, 07 - 8 digital telephones on GCDU (CTX28, CIX40 R1HW and R2HW).</p> <p>01, 08 - 3 CO lines on GCDU (CTX28, CIX40 R1HW and R2HW).</p>

515 View BIOU Control Relay Assignments

Prerequisite Program: 100 [page 4-1](#), and 105 [page 4-15](#)

This assignment is used to view functions of the four control relays on each BIOU set in Program 105 12 Night Relay and 18 Night Bell Relay; Program 508 Door Lock Control Assignment; and Program 503 19 BGM Mute Relay. The system allows up to two BIOUs to provide a total of eight control relays. The control relays can be configured as an external BGM mute control, Night Bell control, Night Mode Control, and Door Lock Control.

Notes

- BIOU-1 relays are identified as Control Relays 1~4.
 - BIOU-2 relays are identified as Control Relays 5~8.
1. Select System > BIOU Relay Type.
 2. Enter Program 515 data.
 3. **Get Default** - sets all data to factory defaults.
 4. Click **Submit**.

FIELD	DESCRIPTION
00 BIOU (1 or 2)	Enter the BIOU number. Possible values: 1 or 2 (default = no value) Note BIOU 1 and BIOU 2 are assigned in Program 100 - Card Assignment.
01 BIOU Relay 1 or 5; or CIX100	View the function of BIOU1, control relay 1 or BIOU2, control relay 5:
02 BIOU Relay 2 or 6	View the function of BIOU1, control relay 2 or BIOU2, control relay 6:
03 BIOU Relay 3 or 7	View the function of BIOU1, control relay 3 or BIOU2, control relay 7:
04 BIOU Relay 4 or 8	View the function of BIOU1, control relay 4 or BIOU2, control relay 8: Possible values: Not Use, Ext Paging, Night Bell, Night Relay or Door Lock (default = no value) <ul style="list-style-type: none"> • NOT USE – if the relay is not used. • PAGE MUTE – External BGM mute control activates during an external page (see “503 Paging Devices Group Assignments” on page 9-53). • NIGHT BELL – Night bell control activates during the system night mode only when incoming CO lines ring (see “102 Flexible Access Codes” on page 4-3). • NIGHT RELAY – Night mode control activates continuously during the system night mode (see “105 System Data” on page 4-15). • DOOR LOCK – Door lock control activates when a telephone's door unlock button is pressed (see “508 Door Lock Control Assignment” on page 9-50).

503 Paging Devices Group Assignments

Prerequisite Program: 502 [page 5-33](#)

Assigns BIOU Page Zone Relays to Page Groups.

1. Select Station > Paging Devices.
2. Enter 00 Page Zone Relay Number.
3. Check the Paging Groups that you wish to activate.
4. Select the external generic relay number.
5. Click **Submit**.

FIELD	DESCRIPTION
00 Zone Relay Number	<p>Select the BIOU page zone relay that should be assigned to the page groups below. This relay activates whenever the selected page group is paged.</p> <ul style="list-style-type: none"> • BIOU1 = Zone Relays 1~4. • BIOU2 = Zone Relays 5~8. <p>Possible values: 1~8 (default = no value)</p>
01-16 Page Groups 17 All Page Group 18 All Call Emergency Page Group	<p>Check the box if the selected BIOU page zone relay should activate with this page group.</p> <p>Possible values: On or Off (default)</p>
19 BGM Mute Relay 20-27 PG17~24 (CIX1200 Exp)	<p>Assign BIOU generic relay as the BGM mute relay. This relay activates whenever the external page is in use</p> <ul style="list-style-type: none"> • BIOU1 = Generic Relays 1~4. • BIOU2 = Generic Relays 5~8. <p>Possible values: 1~8 (default = 0)</p> <p>Note The CIX100 ACTU or CIX built-in relay is programmed as relay 5. For this relay operation, BIOU2 is installed, as default, in a virtual equipment position - Cabinet 2, Slot 5, PCB code 20, in Program 100. To install an actual BIOU2 and disable the ACTU built-in relay, use the programming telephone to remove the virtual BIOU2 and then install the actual BIOU2 in Cabinet 01 Slot 01~08 in the normal manner.</p>

550 Enhanced 911 Emergency Call Group

Prerequisite Program: Program 105

This command assigns OLGs to the Enhanced 911 Emergency Call Group.

1. Select Trunk > Enhanced 911.
2. Select Program 550 data.
3. Click **Submit**.

FIELD	DESCRIPTION
00 Emergency Call Group Number	Specify the Emergency Call Group. Possible values: 1~8 (default = no value)
01-08 OLG1~8	Specify the first through eighth OLG to be chosen for an E911 call. Possible values: 0~32 (CIX100), 0~50 (CIX200, CIX670/CIX1200 Basic), 0~128 (CIX670 Exp, CIX1200 Exp A), 0~220 (CIX1200 Exp B) (default = 0)

This chapter discusses Strata eManager operational programming functions.

System Setup

Program Number(s): 900, 901 and 915

These programs enable programmers to initialize Strata CIX, check software versions and set the region (for built-in parameters not changeable by jumper or switch - unique for each region and affect system operation).

1. Select Maintenance > Hardware Info. and Control - CIX Processor.
2. Click **Restart** to reset Strata CIX or click Initialize CIX to delete programmed data and revert to default settings.
3. 901 CIX Version data is for viewing only.
4. **Get Default** - sets all data to factory defaults.
5. Click **Submit**.

900 CTX/CIX Restart

Prerequisite Program: None

Select Maintenance > Hardware Info. and Control - CIX Processor.

This program enables you to reset hardware and initializes or restores programmed data.

CAUTION! Both commands will drop all existing calls.

FIELD	DESCRIPTION
Restart CIX/CTX	Clicking on this button initializes a System Power Off/Power On sequence to reset hardware. All calls in progress are dropped. This is also known as an Initialize Level 2.
Initialize CIX/CTX	Clicking on this button invokes an Initialize Level 1 sequence which drops all calls in progress, erases programmed data and enters default data into the Strata CIX System. If a Toshiba SM/SD is installed in the available slot, using this option restores data from backed up from the SM/SD (see Restoring Data from SM/SD below).

Important! Choosing Initialize CIX without installing an SM/SD Card deletes all programmed data and returns your Strata CIX to factory default settings. All previously programmed data is lost.

Restoring Data from SM/SD

When initializing with Initialize CIX, you can restore custom data that was previously programmed and stored on an SM/SD card. To do so, follow the steps below:

1. Insert an SM/SD card that contains the Progdata folder with the default.dat file. The default.dat file contains your custom settings and can be created by running Data Backup. See ["910 Data Backup"](#) on [page 10-9](#).
2. Run System Initialization by clicking **Initialize CIX/CTX**.

Notes

- Restoring data from the SM/SD card may take an hour or more.
 - During the restore process the telephone LCD may display date and time. This does not necessarily indicate completion of the restore process.
 - To verify completion of the restore process, access the programming mode from a telephone and enter your password. If the system enables you to continue, the data restore process is complete.
3. Remove the SM/SD card and restart the CIX again after restoring system data. This is necessary to reset xIPUs, Strata Net, ISDN and other advanced features.

901 CTX/CIX Version And Processor Hardware

Prerequisite Program: None

Select Maintenance > Hardware Info. and Control - CIX Processor.

This program enables you to view the Active and Standby software versions installed on the Strata CIX system processor.

FIELD	DESCRIPTION
System Type	Displays the system type that is connected. Possible values: CIX1200, CIX670, CIX200, CIX100 (Active only).
Active Software	Displays the software versions.
Standby Software	These fields indicate the following: A = Indicates software for USA, Canada or Mexico. Rx.xx = Indicates the CIX release level. M0011.00 = The software version number. Note The Active software does not always have to be the same as the Standby software, although the Active and Standby software versions may be the same when you receive it from Toshiba.
DTMF, BBMS, BEXS, BSIS, Ethernet, Modem, DREC Version, IPL Version	The check marks in these boxes indicate the hardware that is installed on the Strata CIX processor. On the CIX100: <ul style="list-style-type: none"> • Ethernet means AETS is installed on ACTU. • Modem means AMDS is installed on ACTU. • DTMF means ARCS is installed on ACTU. • Indicates the DTMF/ABR software. • Indicates basic boot-up software version.

915 Regional Selection

Prerequisite Program: None - Perform this program before doing any database programming.

1. Select Maintenance > Hardware Info. and Control - CIX Processor.

This program enables you to select the region for specific parameter operation.

FIELD	DESCRIPTION														
Region	Select Region. Possible values: <table style="margin-left: 40px;"> <tr> <td>USA</td> <td>Singapore</td> </tr> <tr> <td>Canada</td> <td>Malaysia</td> </tr> <tr> <td>Mexico</td> <td>Indonesia</td> </tr> <tr> <td>Taiwan</td> <td>Sri Lanka</td> </tr> <tr> <td>Hong Kong</td> <td>Thailand</td> </tr> <tr> <td>China</td> <td>Japan</td> </tr> <tr> <td>UK</td> <td>Australia</td> </tr> </table>	USA	Singapore	Canada	Malaysia	Mexico	Indonesia	Taiwan	Sri Lanka	Hong Kong	Thailand	China	Japan	UK	Australia
USA	Singapore														
Canada	Malaysia														
Mexico	Indonesia														
Taiwan	Sri Lanka														
Hong Kong	Thailand														
China	Japan														
UK	Australia														

Important! The region change does not take affect until the system has been initialized. This Level-1 initialize (Prog 900) will disable any database programming already in place.

Set Time and Date

Prerequisite Program: None

This program enables you to change the system clock in Strata CIX.

Select System > Date and Time

FIELD	DESCRIPTION
Date	<p>Set Strata CIX current date or select it from the date picker at right.</p> <ul style="list-style-type: none"> Select current date (YYYYMMDD). <p>Possible values: YYYY = Year, MM = Month and DD = Day</p> <ul style="list-style-type: none"> Current day of week will display once the year, month and day parameters have been entered. <p>Possible values: Sunday ~ Saturday (Read only) (default = no value).</p> <ul style="list-style-type: none"> Leap year will display based on the year entered. <p>Possible values: Leap, Leap Next x, where x = 1, 2 or 3. X. is the number of years since the previous leap year (read only) (default = no value).</p>
Time	<p>Set Strata CIXs current time (hhmmss).</p> <p>Possible values: hh = hour, mm = minutes and ss = seconds (default = no value).</p>

121 Automatic Day Light Savings Time Change

Prerequisite Program: None

This program enables the CIX to automatically change the system clock according to local day light savings time (DST) changes.

Select System > Daylight Saving

FIELD	DESCRIPTION
Enable Automatic Day Light Savings Time Change	<p>This field is not set by default. This field must be set to allow automatic DST change.</p>
Change Based On Month, Week and Day of the Week	<p>The method used to set the day and time of day the DST change occurs.</p> <p>Possible values: Day of week (recommended) set the day, the week and the time for the change. For example: Sunday, The first week of April at 2AM</p> <p>Date (not recommended in the USA) The the date and time for the change. Example Oct. 31, 2:00 AM</p>
Begin Daylight Saving Time	<p>Default is Sunday, first week of April, 2:00 am</p>
End Daylight Saving Time	<p>Default is Sunday, last week of October, 2:00 am</p>

FIELD	DESCRIPTION
Time Adjustment	Defines the exact amount of time change. Default is one hour. The time adjustment should not be long enough to cause a date change.
Change based on Date and Time	DST change can be set two ways: 1. Day of the week: time will change based on the Month, Time and Day of the week set in this program 2. Date: time will change base on the Date and Time set in this program Default: Day of the week

908 Secure Digital and SmartMedia

This program enables you to format and perform file management tasks on a Secure Digital or SmartMedia card while it is installed in the CIX processor. Secure Digital (SD) cards are required for ACTU3A (CIX100), BCTU2A (CIX670) and HCTU1A (CIX1200) processor cards.

Select Maintenance > SM/DS Card.

Secure Digital or SmartMedia Card

The SD card is replacing the SmartMedia (SM) card for use as a removable, portable memory device. The SD is physically smaller than the SM card while storage capacity is the same or greater.

Notes

- 32MB or 64MB must be used for Strata CIX maintenance functions.
- The Strata CIX does not use Compact Flash or other similar types of small storage devices.

Functions

An SD or SM Card(s) is required for most of the important Strata CIX maintenance functions such as:

- Saving (Backup) and re-loading the programmed database of a particular Strata CIX system.
- Saving Event trace data files for troubleshooting problems.
- Updating or upgrading the Strata CIX operating software version.

Note The procedure below will refer to the SM/SD card. The same procedures are used for both the SmartMedia and Secure Digital card.

Administration and Use

- When the SM/SD card is used to perform one of its functions, it is installed in the SM/SD slot of the Strata CIX processor. It must be first formatted for Strata CIX operation by running Forced Format (Program 908). Using the PC to format the SM/SD card is not recommended.
 - The Strata CIX format will create five special folders. These folders and how to use them are explained below and in Chapter 14–Data Backup and Restore.
1. Install the SM/SD Card into the SM/SD slot of the Strata CIX processor.
 2. Select Maintenance > SM/SD Card.
 3. Click one of the following:
 - Normal Format – creates any CIX SM/SD folder that does not exist already. Existing folders are not overwritten by this procedure.

- Forced Format – erases any existing folders and files. All existing data is overwritten. It then creates the five Strata CIX folders. See “CIX SM/SD Folders” on page 10-7 for more information.
- Unmount – copies the CIX event and alarm log files from the CIX processor buffers (RAM) to the SM/SD card and then clears the buffers. It then stops CIX from writing to the SM/SD card so it can be removed without damaging it.

CAUTION! Always run unmount before removing the SM/SD card. Failure to do so can cause damage to the card.

- Transfer – copies the CIX event and alarm log files from the CIX processor buffers (RAM) to the SM/SD card and then clears the buffers.

FIELD	DESCRIPTION
Operation	Displays the procedure selected. Possible values: Normal Format, Forced Format, Unmount and Transfer.
Completion	Displays the progress and status of the procedure selected. Possible values: Processing or Complete
CTX/CIX SM/SD Media Card Folder	Contains files in the CIX SM/SD Folder. Possible values: Files listed under Admlog, Errlog, Evnttrce, Progdata, Program and Traffic folders.
Local Folder	You must manually create a new folder on your PC under CIX folder > WinAdmin > Ctmc > Ctmc_Local > SM/SD Card > New Folder The created folders will be available in the Local Folder drop-down box. You can store CIX SM/SD files on these folders (See details below).

SM/SD Card FTP File Management

1. The Smart card files can be copied from the SM/SD card to your Network eManager PC and vice versa using the Network eManager SM/SD FTP function. The SM/SD card must be installed in the CIX processor and formatted using Program 908 before it can be used. After it is installed and formatted the CIX will automatically store files under the Admlog, Errlog and Evnttrce folder of the SM/SD card - see CIX SM/SD folders below for details.
2. New folders must be created (with your own chosen names) on the Network eManager PC using Windows Explorer before you can use the SM/SD FTP screen. The folders must be created under the following path which already exists on the Network eManager PC:
CIX>WinAdmin>Ctmc_Local>SM/SDCard >Your Folder Name.
3. After the SM card has been formatted and your folders have been created on the Network eManager PC you can manage files as described below:
 - Download: Copy files from the CIX SM/SD Card to the Network eManager PC.
 - From the CIX SM/SD drop down, select the CIX SM/SD folder and file(s) that should be copied to the Network eManager PC.
 - From the Local Folder drop down, select the Network eManager PC folder to which the files should be copied to - then click on **Download**.
 - Upload: Copy files from the Network eManager PC to the CIX SM/SD card.

- From the Local Folder drop down, select the Network eManager PC SM/SD folder and file(s) that should be copied to the CIX SM/SD card.
- From the CIX SM/SD Folder drop down, select the CIX SM/SD folder to which the files should be copied to - then click on **Upload**.
- Delete SM File: Delete files stored on the CIX SM/SD card.
 - From the CIX SM/SD drop down, select the CIX SM/SD folder and file(s) that should be deleted - then click **Delete SM** file.

CIX SM/SD Folders

Running the Normal and Forced options of this program creates five folders on the SM/SD card as follows:

- **Admlog** – The Admlog folder saves a history of CIX Administration (programming) command entries in xxx.SNP and xxx.DKT files. SNP files provide a log of Network eManager entries and DKT files provide a log of programming telephone entries.
- **Errlog** – System error logs are saved into this folder. See Maintenance chapter, Event Trace Control Programs 903, 904 and 905 to set up trace.
- **Evnttrce** – Network eManager Event Trace files are saved into this folder.
- **Progdata** – Your Strata CIX programmed settings are all saved in this folder. When a backup is performed, Strata CIX saves programmed data to the Progdata folder as a default.dat file.

Note To perform the backup function you must first delete any existing default.dat files to allow CIX to create a new default.dat file.

- **Program** – The operating software of the Strata CIX is saved in this folder as a nhs.prg file.

SM/SD Errors

Any error causes the SM/SD LED to flash (0.25sec ON – 0.25sec OFF continuous) except when the SM/SD Volume Label is UPDATE; in this case the SM/SD LED will always flash.

SM/SD LED Specification

SM/SD LED, located near the SM/SD slot on the CIX processor, is lit when the following occurs:

- The SM/SD is accessed for read and write.
- Errors are detected. See above for the detail of errors.
- The SM/SD is inserted into the slot, SM/SD LED blinks once. This is because the system accesses the media to read the housekeeping data. When it does not blink, it means that the SM/SD is not detected by the system at all. If the blink does not stop, it means that any of above error is detected or the SM/SD volume label is UPDATE.

Remote Program Update

Important! Before beginning the Remote Update process:

- The SM/SD card must be formatted and installed in the system.
- Backup the existing database (***.dat) BEFORE starting the Remote Update process.
- Activation of the new software requires a clear-reboot operation that will drop all existing calls and will take the system out of service from 10 minutes to an hour or more, depending on the system size.

1. Download the correct file for your system from the Toshiba FYI site:

- CIXYYYYR5.20MT0xx file (current)
- CIXYYYYR3.10MK0xx
(YYY=CIX system type; xx=version number)

2. DO NOT UNCOMPRESS the zip file. Copy the zip file to a folder on your PC.

3. In Network eManager, select Maintenance > CIX Software Update.

The first screen presents the option of backing up the CIX data before beginning the update process. If you click Yes, the database backup screen displays allowing you to select the database to backup. Once the backup procedure has been completed, click the Browse to find the corresponding CIX software update for each CIX system to be updated (the update software must match the corresponding system or the update procedure will fail).

4. Click on **Step 2 - Upload file(s) to eManager server**. The update software is copied to a designated folder in the Network eManager server

5. When all the CIX software updates have been uploaded, press the **Start** button to complete the update process.

CIX Software Identification

Refer to the table below to identify CIX software release and builds in software file names or when verifying CIX software versions. For example, if the software ID is ML029, this means ML0 is equal to CIX Release 4.0 and nn is the software build number 29.

CIX Release	Software ID
R3.0	= MJ0nn
R3.1	= MK0nn
R4.0	= ML0nn
R4.1	= MN0nn
R4.2	= MP0nn
R5.0	= MR0nn
R5.1	= MS0nn
R5.2	= MT0nn

nn = Software build level/number

Remote Update for Release 4

The remote program update is administered in the same manner as previous releases. In previous releases however, the remote update transferred approximately 200 small files. In R4 the remote update is done with one large file, the same file used for local update.

It should be noted that the Network eManager screen will ‘freeze’ while modem updates are in progress. This freeze, when using a dial-up modem connection, can last up to 60 minutes. You can check the status of the file transfer when using a dial-up modem by right clicking on the connection icon that appears in the tool tray at the bottom of the screen. (The Remote Update file size is about 9MB). Over a LAN connection remote update takes approximately 15 seconds.

CAUTION! When updating a CIX200 R3 system with the existing LCTU1A card to R4, it will be necessary to perform the update locally (remote update will not work). After the system has been updated to R4 the Remote Update function will be available.

System Turn-on and Start-up Time

When a Release 4 system is turned on it takes about 30-90 seconds to operate. CIX Release 2.x and 3.x take about 15 seconds.

910 Data Backup

Prerequisite Program: 908 [page 10-5](#)

This program enables you to backup programmed data from Strata CIX to an SM/SD Card.

1. Install the SM/SD Card into the designated slot of the Strata CIX processor.

Note The SM/SD card must be formatted by Strata CIX and the “Progdata” folder must be empty (no Default.dat file)

2. Select Maintenance > Data Backup.
3. Select the system(s) to backup. Click **Cancel** to interrupt the selected function.
4. Click **Backup**.
5. The Progress field displays the progress of the selected function.

FIELD	DESCRIPTION
Backup	<p>Select one of the following buttons. When performing a Backup, you must use a formatted SM/SD card.</p> <ul style="list-style-type: none"> • Backup – Backup Strata CIX data to SM/SD card. This creates a Default.dat file under the Progdata folder of the SM/SD card. <p>Notes</p> <ul style="list-style-type: none"> • Default.dat is the name of the file that is created and it contains all Strata CIX programmed data. It is not default data. It is data that is currently programmed in the Strata CIX. • The Progdata folder on the SM/SD card must be empty before trying to backup data. You can use FTP to copy and delete an existing default.dat file. • Cancel – Cancel the Backup/Restore function.
Completion	<p>Current Status of Backup.</p> <p>Possible values: Completed successfully, Not completed.</p>

916 IP Configuration

Prerequisite Program: None

This program displays Network Communication IP address configuration. This program applies to the Strata CIX Network (NIC) jack connection only. It does not apply to the CIX maintenance modem. To change TCP/IP settings see [“CIX Processor NIC Interface TCP/IP Auto-programming”](#) on [page 1-9](#).

1. Select Maintenance > CIX Processor IP Address.
2. The following Strata CIX default address displays:
 - IP Address – **a.b.c.d**
where a.b.c.d = 0~255. This IP address is for the NIC/Ethernet only.
 - Subnet Mask – **e.f.g.h**
where e.f.g.h = 0~255 (default = 255.255.255.0). Octet “h” in SubNet Mask cannot be the same as octet “d” in the IP address.
 - Default Gateway (default = 0.0.0.0).

FTP User Accounts

Prerequisite Program: None

This program establishes up to four FTP users for the built-in Strata CIX FTP server function located on the CIX processor. These Strata CIX FTP accounts allow FTP access to the CIX SM/SD card. This allows administration of the CIX SM/SD folders and files.

1. Select Maintenance > SM/SD FTP User Account.
2. Select the FTP Index. Up to four FTP users can be established.
3. Assign the FTP user's Account Name.
4. Assign the FTP user a Password.
5. Enter the default folder that this FTP account is to access. This should be /0/ which is the root folder of the Strata CIX SM/SD card.
6. Click **Submit**.

Note FTP User Accounts are stored in memory on the Strata CIX processor and are intentionally deleted for security when the Strata CIX is powered off/on or initialized.

File Information

Prerequisite Program: None

This program enables you to view lists of Alarm and Administration files stored on the Strata CIX SM/SD card. See ["Set Time and Date"](#) on [page 10-4](#) for more information about these files.

1. Select Maintenance > Log/Trace Rile Setup > File Setup.
2. Select from one of the following options or click **List** to see a summary list of files already programmed into the system. View the file name index, number, name, and creation and modification dates under each of the categories listed below.
 - Error Alarm Files.
 - Error Alarm Expansion Files.
 - SNMP Administrator Files (Network eManager log).
 - DKT Administrator Files (programming telephone log).

Note For a detailed description on Trace function go to ["Event Trace Control"](#) on [page 11-2](#).

Community Name

Prerequisite Program: None

This program enables you to create and set up a Community Name (or passwords) to allow access to specific Strata CIX systems.

1. Select Maintenance > SNMP Community Name.
2. Select the Index Number to assign to the Community or click one of the following buttons:
 - **Remove** – highlight an existing community from the table and click this button to remove the selected community from the index.
 - **Modify** – highlight an existing community from the table and click this button to modify the IP Address, Privileges and Administrator Level settings for this community.
3. Enter the remaining fields.
4. Click **Submit**.

FIELD	DESCRIPTION
Community Name	Enter the Community name. The community name is a password that is stored in the Strata CIX. To communicate with a Strata CIX, the Network eManager PC must send a legal community name to the CIX when attempting to connect. The default community name stored in the CIX is communityName (case sensitive). The CIX can store up to 10 community names.
IP Address	Enter the IP address of the community name. Each community name is associated with an IP address. This IP address is stored in the CIX with its associated community name. Possible values:a.b.c.d.; a = 0~255, b = 0~255, c = 0~255, d = 0~255 Notes <ul style="list-style-type: none"> • To allow any Network eManager PC to connect to the CIX with a particular community name, enter 0.0.0.0 as the IP address for that community name. • To allow only a specific Network eManager PC to connect to the CIX with a particular community name, enter the static IP address of that PC for that community name.
Privileges	Select User Privilege Levels. These privileges are to assign the community name or IP address to an internal Strata CIX level. Possible values:Read (default) or Write Note Read – The user cannot modify Strata CIX data regardless of the Strata eManager User level 1~4. Write – The user can modify Strata CIX data according to the Strata eManager user level 1~4.
Administrator Level	Select Administrator Level. This level is to assign the community name or IP address to an internal Strata CIX access level. Possible values:Super User (default) or Ordinary User Notes <ul style="list-style-type: none"> • Super User – Strata CIX allows the user access to all CIX commands. Super Users can only view ordinary user community names and their own community name but not other Super User community names. • Ordinary User – Strata CIX allows the user access to all CIX programs except 900 Initialization/Restart and 911 Update. Ordinary users can only view their own community name.

909 MAC Address

Prerequisite Program: None

This program enables you to view the Media Access Control (MAC) Address assigned to your Strata CIX System processor PCB. The MAC address is a unique serial number that is electronically coded in the CIX processor memory at the factory – it cannot be changed. The MAC Address is also printed on the back of the processor card that is used for the CIX1200 (Processor Part Number HCTU1A), CIX670 (Processor PN BBCU1A) and CIX100 (Processor PN ACTU1A). A MAC Address must be converted to the applicable serial number utilized in Internet FYI for License code generation.

1. Select Maintenance > CIX Processor MAC.
2. **Serial Number** - review your system serial number.

Note The serial number is printed on the invoice and bar code of the product shipment.

3. **MAC Address** displays as shown to the right. AABBCDDDEEFF = 0~9, A~F (hexadecimal values).
4. **MAC Address Status** - Network eManager verifies whether the MAC address retrieved from the CIX/CTX is valid or not.

License Control

The following programs enable you to issue and maintain License Activation settings for Strata Network eManager users.

Prerequisite Program: None

This program enables you to issue new licenses.

1. Select Maintenance > Licensing > License Control.
2. Issue a License by cutting and pasting or manually entering the 60-character string in the License Code text box.

Note If you are not adding the License Code to Network eManager immediately, copy and save the code in Notepad -using Fixedsys font - onto a disk.

3. Click one of the following buttons:
 - **Issue** – to issue the License Code.
 - **Cancel Issue** – to cancel the License Code issue.
4. Activate the License entered above by selecting the delay timer.
5. Click one of the following buttons:
 - **Activate** – for license activation.
 - **Cancel Activate** – to cancel license activation.

Note Cancel Issue (step 3) and Cancel Activate buttons work only in Standby mode.

License Issue

Prerequisite Program: None

This program enables System Administrators to issue Licenses for Network eManager users.

FIELD	DESCRIPTION
Status	Status applies to both License issue and License Activate. Displays Licensing Status. Possible values: Not yet, Issue Stand by, Issue Finished, Cancel Issue, Activate Stand by, Activate Finished or Cancel Activate
License Code	Cut and paste the License Code text string or manually enter the License Code (four characters per box). Possible values: 60 characters. Note The License Code will have to be generated from Toshiba's FYI website (http://fyi.tsd.toshiba.com). After obtaining the License code from FYI save it as a Text file. Cut and paste the License code obtained from Toshiba's FYI website. The License Code is made up of the MAC Address and the number of ports. The License Code that is generated for a particular MAC Address is only good for the processor that contains that MAC Address.

License Activate

Prerequisite Program: License Issue, above

This program enables activation of Network eManager licenses issued in License Issue.

FIELD	DESCRIPTION
Delay Timer	<p>Select Activation Delay Timer in hours.</p> <p>Possible values:0~24 (default = 0)</p> <p>Notes</p> <ul style="list-style-type: none"> • Enter 0 to issue or activate the license immediately or 1~24 to set the automatic delay activation feature, where 1 = 1 hour delay; 2 = 2 hour delay, etc. • After the license is activated, use the License Information screen below to check that all ports and features have been activated properly.

License Information

The following programs enable you to set up Licensing details for Network eManager users.

Prerequisite Program: None

1. Select Maintenance > Licensing > License Information.
2. View Equipped License Information details for this Strata CIX account.

This view is read-only information.

FIELD	DESCRIPTION
CIX/CTX Release Number	This is the Basic Release Number of CIX software. To view the Active Software Version, go to Operations/System Setup.
System Type	This identifies the type of CIX system to which Strata eManager is currently connected.
Maximum Number of Cabinets	This identifies the maximum number of cabinets. The total of base plus expansion cabinets.
Number of Serial Ports	<p>This identifies the number of serial ports licensed on the BSIS.</p> <p>One license is needed for each SMDR and SMDI device connected to BSIS. (Programs 803 and 804 assigns BSIS ports).</p>
Number Of DTMF Receivers	This identifies the number of DTMF receivers licensed. The ARCS Subassembly is required on the CIX100 processor, no additional hardware is required for CIX670 or CIX1200.

FIELD	DESCRIPTION
Number of Basic Ports	<p>This identifies the number of Line circuits, Station circuits and ISDN B channels licensed, and shows the number of licenses in use (or programmed).</p> <p>Station circuits use a license only when a PDN, DDS, BATI or door phone is assigned to the circuit.</p> <p>Analog and T1 line circuits use a license only when a line number is assigned to the circuit or B-channel.</p> <p>ISDN B-Channels use a license when assigned in PRI and BRI assignments.</p>
Strata Net Channels	<p>This identifies the number of Strata Net channels licensed, and shows the number of licenses in use (or programmed). This license must be enabled on each CIX in a Strata Net network.</p>
Number of CTI Sessions	<p>This identifies the number of licensed CTI sessions. Each Attendant Console, the ACD or OAISYS Sever and each third party CTI application requires one CTI session license. (Command 803 assigns CTI sessions).</p>
Number Of Attendant Consoles	<p>This identifies the number of Attendant Consoles licensed. One license is required for each Attendant Console. A CTI Session License is also required for each Attendant Console (see Number of CTI Sessions).</p>
Number of Softphones	<p>The number of Soft IP Phones licenses. Each phone requires one license.</p>
CIX IP Telephony	<p>Shows CIX IP Telephony is Enabled or Disabled.</p>
Number Of IP Endpoints	<p>The number of IP Endpoints licensed, and shows the number of licenses in use (or programmed).</p>
Number Of LVMU Channels	<p>Shows how many of the licensed LVMU channels are used.</p>
SIP Trunk Channels	<p>Shows how many of the licensed SIP trunks are used.</p>
Number of DP5022-SDM	<p>Identifies the available number of licensed DP5022-SDM.</p>

Alarm Control

System Availability: Not available with CTX28
Program Number(s): 919 and 920

Alarm Notification (AN) sends a notification of a system alarm condition. The notification can be sent over a network connection to an eMonitor system, other application and, optionally, to a feature button on a telephone. The alarm notification is SNMP trap data that can be sent to as many as 11 different IP addresses. Up to eight stations can have a button programmed as an Alarm Indicator. There are three categories of alarms: ISDN, T1, and System Resources.

There are two types of SNMP messages sent to the external, eMonitor, PC or Server; (1) Alarm Notification when an error condition occurs. (2) Current Alarm Condition Summary sent every 10 minutes whether an alarm has occurred or not.

The following programs enable you to control the alarm settings for a system or slot(s) for Network eManager users.

System Alarm Control (Program 919)

Select Alarm/Traffic > Alarm Setup > System Alarm.

Prerequisite Program: None

This program resets all alarms and enables/disables the Current Alarm Summary notification.

FIELD	DESCRIPTION
01 Clear Alarm Buffer	The Clear command resets all current alarms. This command is used to manually clear the buffer. Set to Invoke and Submit to clear the buffer. When the clear command is invoked the system will not re-send a persisting T1 or PRI alarm condition. When an alarm condition is clear for several seconds, the system will clear the buffer without the need to manually clear the buffer. Possible values: Idle, Invoke (default = idle)
02 Alarm Buffer Status	This command when enabled sends the alarm status to the Alarm Monitor device periodically (approx. 10 minutes). Possible values: Enable/Disable.
System ID	This number is sent in the SNMP Alarm Trap data stream to the CIX Alarm Monitor application, or any other SNMP trap monitor. It can be used as the System ID of a CIX node or the same System ID can be assigned to multiple nodes to identify a group of systems (max. 8-characters, alpha-numeric).

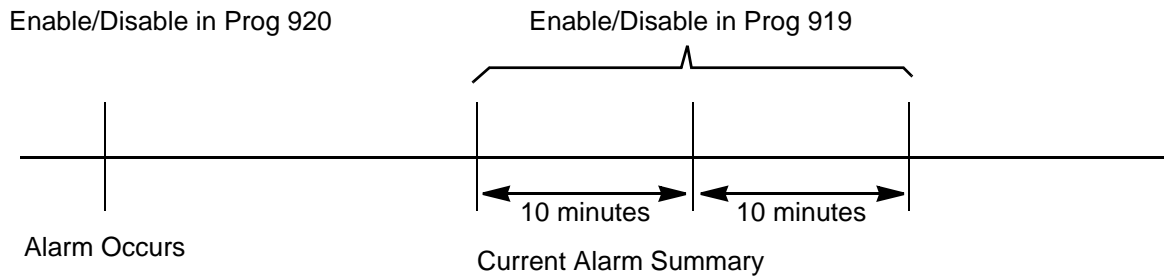
Alarm Control for Slot (Program 920)

Select Alarm/Traffic > Alarm Setup > Alarm Slot.

Prerequisite Program: None

This program resets all alarms and enables/disables the Current Alarm Summary notification.

FIELD	DESCRIPTION
00 Equipment Number	Enter the cabinet and slot number of the equipment to be monitored. Notes <ul style="list-style-type: none">• If you want to monitor expansion cabinet power, you must set the appropriate cabinet number (02-07) and slot number to "00."
01 Alarm Enable/Disable	Set this parameter to enable to monitor the selected equipment. Set this parameter to disable to not monitor the selected equipment. Possible values: Enable/Disable.



Traffic Measurement

Program 921 Control Setup

Prerequisite Program: None

Traffic Measurement (TM), when ON, sends data each hour. The data is stored in the SD/SM card on the processor in a TRAFFIC folder or it can be sent to an external device via LAN or RS-232. Each file is named: MMDDHHNN.trf.

- MM** = Month (01 - 12)
- DD** = Day (01 - 31)
- HH** = Hour (01 - 24)
- NN** = Sequence Number

1. Select Alarm/Traffic > Traffic Measure > Control Setup
2. Enter data.
3. Click **Submit**.

FIELD	DESCRIPTION
01 Traffic Measurement On/Off	Select Enable to run Traffic Measurement. Select Disable to stop Traffic Measurement.
02 Send TM Data to SM/SD Card	<p>Enable To send data to the SM/SD card (TRAFFIC folder) and, if setup in I/O Device configuration, to an external device (RS232c or LAN).</p> <p>Disable To send data only to the external device. The external device must be set (refer to the I/O Device configuration Program 803).</p>
03 Select Tenant to Measure	Select the System Day/Night Table to be used for the work day and non-work day and holiday definitions. This does not select TM by tenant.
04 ~ 12 Time Zones	Set the time zone (report hours) in each category.
13 Traffic Measurement Units	Traffic intensity units Possible values: Erlang or CCS (default)
ILG tab - 14 Select ILG	Select which Incoming Line Group should have traffic measurement enabled/disabled
OLG tab - 15 Select OLG	Select which Outgoing Line Group should have traffic measurement enabled/disabled
DID-Numbers	Select which Incoming DID Line Group should have traffic measurement enabled/disabled for selected DID numbers
16 Select DID ILG Select DID Number	The DID number in the selected DID Incoming Line Group that should have traffic measurement enabled/disabled. Use "?" to assign wild cards.

FIELD	DESCRIPTION
<p>DID Intercept 17 Select DID ILG-Intercept DID Intercept Call Type</p>	<p>Select which Incoming DID Line Group should have traffic measurement enabled/disabled for intercepted calls. Intercept occurs on DID calls when a received DID number does not match any DID number programmed in the database, or a destination assignment match was not found because a destination was not programmed in the database or the destination was not operating properly.</p> <p>Select No DID to measure DID calls that come to the system that are not assigned as a DID number in the CIX database. Select Not Determined to measure DID calls that come to the system that are not assigned to a destination in the CIX database, or the destination is not operating properly.</p>
<p>18 Measure DTMF Receivers</p>	<p>Measure DTMF Receiver traffic</p> <p>Possible values: Enable or Disable</p>
<p>19 Measure Conf. Circuits</p>	<p>Measure Conference Circuit Receiver traffic</p> <p>Possible values: Enable or Disable</p>
<p>20 Station Hunt Group No.</p>	<p>Enter the Station Hunt Group number that should be included in Traffic Measurement reports.</p> <p>Possible values: Enable or Disable</p>

Program 922 Specified Traffic Reports

Prerequisite Program: 921 Traffic Measurement

Traffic Reports are a summary of the traffic measurement data. Traffic Reports are stored as a file named TRAFFIC.TRF, written to the SD/SM card. The SD/SM card must be inserted in the processor before executing this program. The SD/SM card can store one traffic report. If a report is on the SD/SM card when another report is started, the new report will overwrite the old report. The TRAFFIC.trf file will be mixed in with the YYMMDDHHNN.trf files.

1. Select Alarm/Traffic > Traffic Measure > Traffic Report.
2. Enter data.
3. Click **Submit**.

FIELD	DESCRIPTION
01 Start Traffic Report	Start To start a report. Cancel To stop a report that is running.
02 First Date in Traffic Report	The first day of TM data to be included in the report. Traffic Report Start Time - The first hour of the first day of TM data to be included in the report.
03 Last Date in Traffic Report	The last day of TM data to be included in the report. Traffic Report Stop Time - The last hour of the first day of TM data to be included in the report.
04 Traffic Report Status	No entry. This is a status display.

Trap Destinations (IP Trap Setup)

Prerequisite Program: None

This program enables you to setup Trap IP Destination.

1. Select Alarm/Traffic > Alarm Setup > IP Trap Destination.
2. Select a Trap IP Index number or click **Add** to add a Trap IP index.
3. Click **Submit**.

FIELD	DESCRIPTION
IP Address	Enter the IP address for remote connection. This is the IP address of the CIX eMonitor PC or server or other trap monitor device. Possible values:a.b.c.d.; a = 0~255, b = 0~255, c = 0~255, d = 0~255
Community Name	Enter the Name of the Community. This is the name assigned to the trap monitor PC or server. This is not a password. It is only used to identify the location of the trap monitor device. The default name for eMonitor is 'eMonitor' however any name can be used, such as a location name (i.e.; Aledo). Possible values:Alpha characters (default = no value).

This chapter discusses Strata CIX maintenance functions.

Trace Function

To analyze Strata CIX problems efficiently, Toshiba needs to get the event trace data and ISDN trace data. These data sets enable analysis of the problems Strata CIX may experience. It is helpful for troubleshooting problems that are difficult to duplicate.

Please contact Toshiba Technical Support to coordinate the running of the procedures that appear in this section. Technical Support will walk you through the required steps.

Trace Data

By running traces when tests are conducted on your Strata CIX system, you ensure that data are being kept in the event your system encounters a problem. This data can be sent to Toshiba Tech Support for analysis and troubleshooting.

Strata CIX can collect the following trace data:

- Error Log (including crash dump)
- Event Trace
- ISDN L3 trace

Error Log

When Strata CIX detects an error the information is stored automatically without executing a program. However, if the system locks up, you must restart the system to save the data to the Secure Digital (SD) or SmartMedia (SM) card.

Start/Stop/Store Trace Data

When you execute a test, start recording the trace data by enabling the [Event Trace Control](#) (Program 903). See [page 11-2](#). If you use ISDN extensions or trunks, please record ISDN trace data by starting “[904 ISDN Trace Location](#)” on [page 11-3](#).

To test and retrieve trace data

Note This procedure requires use of optional SD/SM reading hardware and software or FTP management with a personal computer. See “[908 Secure Digital and SmartMedia](#)” on [page 10-5](#).

1. Start your test. If a problem occurs, stop the trace (please refer to the [Event Trace Control](#) and [904 ISDN Trace Location](#) program instructions in this manual).
2. Verify the results by running the same test(s) again. If the problem can be duplicated the information contained in the trace data becomes more useful.
3. Unmount data to the SD/SM using “[Set Time and Date](#)” on [page 10-4](#).

4. Remove the SmartMedia card from the Strata CIX. **Use caution** - the SD/SM device can be damaged if removed incorrectly.
5. Insert the SD/SM card into your SD/SM reader.
6. Locate the Evnttrce folder and save all files ending with .sdt and .mdt to your PC hard drive.
7. Locate the Crash Dump in the errlog folder. File extensions are .exp and .mnl and append to your hard drive.
8. E-mail the files to your Toshiba support person.

If you start recording trace data after a problem occurs, the previous data is overwritten. Make sure the required data files are stored to the SD/SM and saved to disk prior to starting another trace.

The following table shows you how much SD/SM card memory is allocated to each directory. System traffic load will determine how much data is stored in the Evnttrace log.

Table 11-1 SD/SM card file allocation size in Mega Bytes

SmartMedia Type	16MB	32MB	64MB	128MB
Errlog	2MB	4MB	8MB	24MB
Evnttrce	4MB	12MB	32MB	64MB
Admlog	2MB	8MB	16MB	32MB
Progdata	8MB	8MB	8MB	8MB
Program	0MB	0MB	0MB	0MB
Total	16MB	32MB	64MB	128MB

Event Trace Control

Program Number(s): 903, 904, 905 and 906

Prerequisite Program: None

This program enables you to trace message events occurring in the Strata CIX. Program Numbers 903, 904, 905 and 906 are consolidated in one Network eManager screen.

1. Install the SmartMedia Card into the designated slot of the Strata CIX processor.
2. Select Maintenance > Log/Trace File Setup > Trace Start/Stop.
3. Enter Program 903 data.
4. Enter Program 904 data
5. Enter Program 905 data.
6. Enter Program 906 data.
7. Trace data displays in the dialog boxes.

903 Start/Stop Trace

FIELD	DESCRIPTION
Start/Stop Trace	Click in the appropriate button to start or stop Message Trace. Start Trace indicates that the system's trace data collection process has begun. Stop indicates the trace data collection process is terminated Before removing the SmartMedia card run Program 908. See "908 Secure Digital and SmartMedia" on page 10-5. Possible values: Start Trace or Stop Trace (default)
Current Function	Displays the last command sent to the CIX.
Completion	Displays the progress of the current function.
Size [x16 Bytes]	Set the trace data size. Toshiba recommends leaving this parameter at the default setting which provides approximately 15 minutes of trace data. Possible values: 1~256 bytes with 1 unit = 16 bytes (default = 2)
Category	Select Trace data type to be stored. Possible values: Call Processing, Maintenance, and Call Processing and Maintenance (default)

904 ISDN Trace Location

ISDN protocol event trace collection conditions are established using this program.

Note This trace can be performed on BSU and PTU cards only.

FIELD	DESCRIPTION
Cabinet/Slot/Circuit	Enter the Equipment Location to be traced (xxyyzz). Possible values: xx = Cabinet 01~11; yy = Slot 01~10; zz = Circuit 01~04
Trace Kind	Select the trace collection level. Possible values: LLCI Trace, Layer 3, Layer 2 & 3, State Transitions, Errors, Layer 2 States.
Trace Level	Select the extent to which the trace collects information. Possible values: No Trace (default), Brief or Extensive

905 All ISDN Lines Trace Level Selection

FIELD	DESCRIPTION
Trace Level For All ISDN Lines	Select whether to trace all ISDN PRI and BRI trunks. Possible values: Set Extensive (default) or Set No Trace

906 Change Trace Selection

FIELD	DESCRIPTION
Set Message Trace	Select Message Trace only. Possible values: Message Trace (default), ISDN Trace or Both
Set ISDN Trace	Select ISDN Trace only
Set Both	Select Message Trace and ISDN Trace
Current Trace Selection	Displays the last command sent to the CIX.
Completion	Displays the progress of the current function.

Memory Access Operation

Prerequisite Program: None

This program enables you to manipulate memory settings.

1. Select Maintenance > Memory Access.
2. Click the Read Memory or Write Memory button to access memory.
3. Enter the memory Address to be accessed.
4. Select size of memory to access (1~256, default = no value).
5. Click one of the following buttons:
 - **New** – click this button to create a new Memory Access filename.
 - **Open** – click this button to open an existing Memory Access file.
6. Click **Submit**.
7. Click **Save** to save Memory Access file.

Note The Content box displays the contents of the memory address selected.

Components

Prerequisite Program: None

The following programs enable you to monitor the status of individual Strata CIX slots and ports.

This is the main system slot/port monitor. The Components screen allows each cabinet card slot and each card slot port to be monitored, enabled or disabled.

Select Maintenance > Hardware Info. and Control - Exp Cabinets 1~7.

Auto Fault Detection/Disable

When an error occurs in hardware resources used for a station or line, the Strata CIX system will make them busy. In this case the Strata CIX system will automatically disable the card slot or card port (circuit or channel). The Component Status/Control screen will indicate the card or port failure status with "Disabled by Fault xx" where xx is the status code in the table below. When a digital telephone is disabled the telephone's LCD will display Make Busy. The station or line card can be disabled temporarily to perform maintenance or parts replacements as well.

Note The port or slot to which your programming phone is connected cannot be set to Make Busy. The figure on the next page displays the status of Exp. Cabinet 1 from a demo system.

The screenshot displays the Strata CIX Network eManager interface. At the top, there is a navigation bar with options: Home, Clients, Connected Equipment, Application Settings. Below this is the Toshiba logo and the Strata CIX Network eManager title. The user is logged in as Administrator. The main menu includes Strategy ES, System, Station, Trunk, IP-Telephony, LCR/DR, Strata Net, Maintenance, Alarm/Traffic, and Help. The current view is 'Maintenance - Hardware Info. and Control - Exp. Cabinet 1'. On the left, there is a sidebar with icons for TRACT System 4, TRACT 1 VM, and TRACT 4 VM. The main content area shows two tables:

Slot	Interface Card	Status	Group Control		
1	017 BDKU or BWDKU	Idle	Disable	Forced Disable	Enable
2	018 BDKU/BDKS or BWDKU	Idle	Disable	Forced Disable	Enable
3	029 LIPU-X	Idle	Disable	Forced Disable	Enable
4	000	Not Exist	Disable	Forced Disable	Enable

Port	Status	Group Control		
Port 1	Idle	Disable	Forced Disable	Enable
Port 2	Disabled by Fault: DO	Disable	Forced Disable	Enable
Port 3	Disabled by Fault: DO	Disable	Forced Disable	Enable
Port 4	Disabled by Fault: DO	Disable	Forced Disable	Enable
Port 5	Disabled by Fault: DO	Disable	Forced Disable	Enable
Port 6	Disabled by Fault: DO	Disable	Forced Disable	Enable
Port 7	Disabled by Fault: DO	Disable	Forced Disable	Enable

At the bottom of the interface, it shows 'Network eManager: V5.20A04b' and '©2008 Toshiba America Information Systems'.

Manual Disable/Enable

The components screen allows you to enable or disable any card slot or port.

- When disabled by Disable or Forced Disable, line or stations are made busy and the status will display “disable by cmd” on the screen. On the telephone LCD, it will display Make busy.
 - Disable will disable an idle port or slot and cause ports/slots that are in use to go to Pending Disable – which go to Make Busy after they go idle. Disable waits until a call clears to disable it.
 - Forced Disable will disable an idle port or a port that is in-use (the call will be disconnected).
- Enable – removes the Make Busy condition if the slot or port is manually disabled.

Note You cannot enable a slot or port if the system automatically disabled it. The status on the screen will display Disabled by Fault.

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This chapter discusses Tools and Profile to customize and manage your Strata CIX System.

Tools

The download tool provided in Network eManager enables you to download databases stored in system memory into a Network eManager folder named Download. These downloaded databases can then be viewed in your PC to check for errors or other anomalies. The downloaded files are saved as files on the same drive that Network eManager is installed on (often the C: drive) in this path:

eManager\userdata\login name\mac address

Note that the file name will include the name you logged on to Network eManager with, and the MAC address of the system you logged into.

They may be opened and viewed using Excel, Word or some other application.

Download

Prerequisite Program: None

1. Select > Maintenance > CIX Data Download.
2. A list of all Strata Network eManager programs displays.
3. Click on the program to be downloaded. Selected programs are highlighted in yellow and the word Selected displays to the right. The following buttons are also available:
 - **Clear All** – click this button to clear all previously selected files.
 - **Select All** – click this button to select all programs for downloading.
4. Click the **Start Downloading** button in the top right corner of the display.
5. The system notifies you when the download is complete.

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This chapter provides a subset of the button programming interface provided with the Strata CIX. This chapter includes Button Programming for the 900 series programs. For the other programs refer to the Telephone Button Programming document.

Telephone Button Overview

Strata CIX programmers can access the programming mode from any IP, IPT, or DKT LCD telephone except DKTs connected to an RDSU. A 20-button telephone (shown below) is required to ensure full access to all programming parameters. The telephone button programming interface enables limited programming capabilities over ranges of stations or trunks.

Note Telephones connected to an RDSU cannot be used to program the Strata CIX.

The figure below shows the telephone button pad for a 20-button DP5000-series Digital Telephone or IP5000-series IP telephone.



Telephone Button Commands

1. Use the following buttons to execute the commands:
 - **Hold** – Enter.
 - **Page/Scroll** – Scroll up or down.
 - **Speaker** – This delimiter moves cursors between sub-parameter values.
 - **Volup** – Escape. Vols displays as & on the LCD. Press **Volup** to program # or * in dialing sequences.
 - **Voidown** – Back space for line editing.
 - **# # Hold** – Cancel.
 - * – Use this button between values to specify a range of objects to be programmed (e.g., 1001*1005 enables programming of stations 1001 through 1005).
 - ** – Use this button between values to specify a set of objects to be programmed (e.g., 1001**1005**1012 enables programming of stations 1001, 1005 and 1012).
 - Off-hook – lift and replace the handset to immediately exit programming mode.
2. Keep the following in mind as you maneuver through Strata CIX programs.
 - Default and/or current settings are displayed on the telephone LCD with an asterisk.
 - Some Strata CIX programs have more than 20 programmable parameters. To toggle from parameters **FB01~FB20** and **FB21~FB40** press the **Scroll** or **Page** button after entering Program Mode.
 - To view parameter options on your telephone LCD press the desired **FB** button and press the **Scroll** or **Page** button.
 - Each parameter shows a number to the left (e.g., **2:DISABLE**). Program the desired parameter by pressing the number button (in this example 2) that corresponds to your desired parameter.
 - To enter data, use the number keys.
 - To submit your program entry press **Hold**. To confirm a submitted entry, press **Hold** again.
 - To exit a program press **# # Hold**.
 - To enter the # character in your data string press the **Volup** and the # button simultaneously. An & sign appears in your LCD. Press the # button, then enter the remaining data.
 - If you get an error code, press **Hold** (twice) to continue programming. See System Error Codes in the Error Code document for error code details.

Programming Parameters

Programs can have between one and 40 programmable parameters, each represented by the **FBnn** buttons. The LEDs light up for each **FBnn** button that features a programmable parameter. Each parameter is programmed by entering values into the LCD from the telephone button pad.

1. At the SELECT PARAM prompt, press the appropriate **FBnn** button.
2. Enter the appropriate value from the telephone button pad using the Parameter Fields tables supplied with each program.
3. Press **Hold** to submit.
4. Press another **FBnn** button to program more parameters
... or press **Hold** again to program.

Programming Sub-parameters

Some commands enable programming of Sub-parameters to further refine Strata CIX settings. Internet or Network IP addresses are entered using sub-parameter data. IP addresses are displayed as four three-digit values, or Octets, separated by “periods” (e.g., 192.168.255.253). (If your programming telephone’s LCD is only capable of displaying the IP information three digits, or one Octet, at a time, selecting **FB01** in Program 916 displays the first Octet, 192, on the LCD. To view or change the next Octet (in this example 168) in the IP Address, press the **Speaker** button. Pressing **Speaker** again, displays the following Octet (in this example 255)).

The following is an example from Program 200, **FB04**. **FB04** is broken down into three sub-parameters as follows COS DAY1, COS DAY2 and COS NIGHT.

1. At the SELECT PARAM prompt, press **FB04**.
2. At the COS DAY1= prompt, enter a value from 1~32.
3. Press **Speaker**.
4. At the COS DAY2= prompt, enter a value from 1~32.
5. Press **Speaker**.
6. At the COS NIGHT= prompt, enter a value from 1~32.
7. Press **Hold** to submit.
8. Press another **FBnn** button to program more parameters
... or press **Hold** again to program a new DN.

Note To change one of the sub-parameters, you must proceed through all three sub-parameters before pressing **Hold**. For example, to change the value of COS DAY1, you must change the COS DAY1 value, then press **Speaker** twice, and finally, press **Hold**.

Button Programming Procedure

Step 1: Enter Program Mode

Enter the button sequence displayed below to enter the CIX1200/CIX670 programming interface from a station.

1. Log in by pressing: **Hold *##*1*2*3***.
2. At the **PASSWORD=** prompt, enter your password. Default is **0000**.
3. Press **Hold**.

Step 2: Enter Program Number

1. At the **PROG=** prompt enter the three digit program code (e.g., **200**) and press **Hold**.
2. Programmable parameters are identified by the FB LEDs that are illuminated on the DKT. Go to [“Choose a Button Sequence”](#) on page 13-4 Press on the related **FBnn** button to program a parameter or if there are no illuminated FB LEDs, continue to Step 3.

Step 3: Enter FB00 Parameters

FB00 parameters designate a specific station, trunk, or circuit to be programmed. The **FB00** prompt (e.g., **EQUIP=**, **DN=**, **INDEX=**, etc.) appears automatically in the LCD screen.

1. At the **FB00** prompt, enter the desired value using the telephone number pad.
2. Press **Hold**.

Step 4: Choose a Button Sequence

Select the button sequences based on the programs required for programming the Strata CIX from the Telephone.

Program Listings

This table is a list of programs found in this chapter.

Program Number	Program Name
900	System Initialize
901	Display Version
902	Set Time and Date
903	Event Trace Control
904	ISDN Trace Location
905	All ISDN Trunk Trace
906	Event Trace Side Change
907	System Admin Log
908	Format/Unmount SmartMedia
909	MAC Address (System Serial Number)
910	Data Backup
911	Program Update
912	Make Busy Control
915	Regional Selection
916	IP Configuration

900 Series Programs

These programs are organized based on functions versus program numbers.

System Initialize

This program enables you to reset hardware and initializes, or restores, programmed data.

Program Number(s): 900

Prerequisite Program: None

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt, enter your password and press **Hold**.

At the **PROG=** prompt enter **900** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Initialize Level	01	Press 1 or 2 to select the initialize level. Level 1 – Erases programmed data and enters default data or backed up data if a SmartMedia Card is installed (see Note). Level 2 – Simulates System Power Off/Power On operation to reset hardware.	1. Initialize Level 1 2. Initialize Level 2	1:Restart with Clear Data 2:Restart

To access programming parameters

1. Press **FB01** to choose Initialize Level 1 or 2.
2. Press **Hold** twice to initialize.

Important! Choosing Initialize Level 1 without installing a SmartMedia Card deletes all programmed data and returns your Strata CIX to factory default settings. All previously programmed data is lost.

Restoring Data from SmartMedia

When initializing with Level 1 you can restore custom data that was previously programmed and stored on a SmartMedia card. To do so, follow the steps below.

1. Install a SmartMedia card that contains the Prog data directory with the default.dat file. The default.dat file contains your custom settings and can be created by running Data Backup. See Data Backup.

Important! A CIX/CTX default.dat database can only be restored to a CIX/CTX software version that is the same or higher than the CIX/CTX software version on which the default.dat file was created. For example, a default.dat created on CTXR2.0 MF029 can be restored on an R2.0 MF030, MF031 and higher R2.1MG0XX, R2.2 MF0XX (XX = 01~99, but it cannot be restored on R2.0 MF012, MF011 and lower, or R1.X ME0XX, MD0XX, etc.

2. After installing the SmartMedia card, run System Initialization using Initialize Level 1.
Restoring data from the SmartMedia card may take an hour or more. To verify completion of the restore process access, the Programming Mode from a telephone and enter your password. If the system enables you to continue, the data restore process is complete.

Note During the restore process the telephone LCD may display date and time data. This does not necessarily indicate completion of the restore process.

Display Version

This program enables you to view current software versions for the Strata CIX system and installed options.

- Active – As the name implies, this is the current active software operating the Strata CIX system.
- Standby – This is a software version released prior to the active version. It acts as a backup in the event problems are experienced by the Active version.

Program Number(s): 901

Prerequisite Program: None

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:

Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

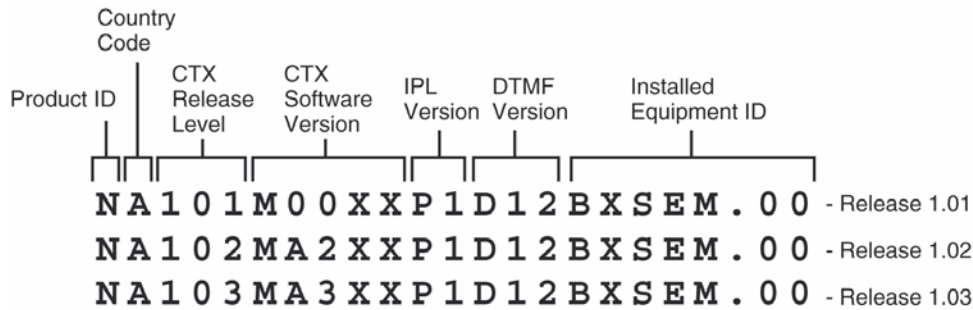
At the **PROG=** prompt enter **901** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Version Number Active	01	Display Active side software version and installed options. As the name implies, this is the current active software operating the CIX system.	6~31 digits	Installed Version
Version Number Standby (CIX1200/ CIX670 only).	02	Display Standby side software version and installed options. This is a software version released prior to the active version. It acts as a backup in the event problems are experienced by the Active version.		Installed Version

1. Press **FB01** to view the current Strata CIX software version. Press the **Scroll** or **Page** key to move the display left or right.
2. Press **FB02** to view backup Strata CIX software version.
3. Press **Hold**, then **# # Hold** to return to the **PROG=** prompt.
4. Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

Reading the Version Code

The figure below is an example of the Strata CIX software version code.



6499

Position	1	2	3	4	5	6	7
Version Code	A	A	520	MTxxx	Px	Dxxx	XSEM.00

- **Pos. 1 - Product ID** – This is the first character in the version code string. N designates CIX670; S designates CIX100, A designates CIX1200
- **Pos. 2 - Country Code - 2** – “A” identifies the country (USA, Canada, Mexico).
- **Pos. 3 - CIX Release Level** – This string of numbers identifies the Strata CIX Release level (NA101=R1.01, NA102=R1.02, NA103=R1.03, etc).
- **Pos. 4 - CIX Software Version** – This string of characters identifies the current software version. For the example above, the software is called “M00XX, MA2XX, MA3XX, etc,” where XX is the version number.
- **Pos. 5 - IPL Version**
- **Pos. 6 - DTMF Version** – This three character string identifies the existence of DTMF and ABR circuits and the version. The “D” designation indicates that DTMF is being applied to the Strata CIX while “12” indicates the DTMF version number. The CIX1200 DTMF version has 3 digits.
- **Pos. 7 - Installed Equipment ID** – There are five characters, each referencing a unique equipment identification value assigned to hardware installed in your Strata CIX system. If the particular hardware is not installed a “-” displays. The following are the equipment identifier designations.
 - B – BBMS is installed (CIX1200 does not use this)
 - X – BEXS is installed.
 - S – BSIS is installed.
 - E – The Ethernet is installed.
 - M – The Modem is installed.

Set Time and Date

This program enables you to change the system clock in Strata CIX.

Program Number(s): 902

Prerequisite Program: None

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **902** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Date	01	Enter current system date in this field.	yymmdd format yy = current year mm = current month dd = current day	DATE=
Time	02	Enter the current time in this field.	hhmmss format hh = current hour mm = current minute ss = current second	TIME=

1. Press **FB01** to enter current Strata CIX Date. See table above for format.
2. Press **Hold** to program.
3. Press **FB02** to enter current Strata CIX time. See table above for format.
4. Press **Hold** to program.
5. Press **Hold** to submit, then **# # Hold** to return to the **PROG=** prompt.
6. Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

Event Trace Control

This program enables you to trace message events occurring in Strata CIX.

Program Number(s): 903

Prerequisite Program: None

Reference: Install SmartMedia card

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt, Enter your password and press **Hold**.

At the **PROG=** prompt enter **903** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Trace State	01	Enter 1 or 2 to Start or Stop Message Trace. Stopping the trace outputs data to the SmartMedia card. Wait for the PROG= prompt on the LCD before proceeding. Before removing the SmartMedia card run Program 908. See Format/Unmount Secure Digital/SmartMedia on page 13-14.	1:Start 2:Stop	1:START 2:STOP
Trace Size	02	Set the trace data size. Toshiba recommends leaving this parameter at the default setting which provides approximately 15 minutes of trace data.	1~256 (in bytes) 1 unit = 16 bytes Default = 2	SIZE=
Trace Category	03	Trace data type to be stored.	1:Call Processing 2:Maint and Admin 3:Both of the above	1.CP 2.M&A 3.CP+M&A (default)

1. Press **FB01** to enable Start or Stop trace. Use the number key pad to make your selection.
2. Press **Hold**.

Notes

- Start indicates the trace was previously started and is currently running.
 - Stop indicates the trace is not running and all trace buffer data was transferred to the SmartMedia.
3. Press **FB02** to enter trace file size. To change the setting use the number Dial Pad.
 4. Press **Hold**.
 5. Press **FB03** to set trace category. To view setting options, press the **Scroll** or **Page** button.
 6. Press **Hold** twice to execute. Wait for the **PROG=** prompt to display before proceeding.
 7. Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

Note When the CIX1200/CIX670 stops logging data, it automatically sends data to the SmartMedia card. A new trace file is stored on SmartMedia under the Evttrace directory. Run the Unmount command (Program 908) before removing the SmartMedia card to ensure complete data transfer.

ISDN Trace Location

This program enables set up of ISDN protocol event trace collection conditions.

Program Number(s): 904

Prerequisite Program: None

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **904** and press **Hold**.

At the **EQUIP=** prompt enter the Shelf, Slot and Port numbers.

Notes

- Shelf, Slot and Circuit number is entered in "XXYYZZ" format where Shelf is a two digit value from 01~07 corresponding to the Strata CIX Cabinet number; slot is a two digit value from 01~10 corresponding to the Strata CIX Cabinet's PCB slot number; circuit is a two digit value from 01~04 corresponding to the Strata CIX PCB Slot's circuit number.
- Always use circuit 01 for RPTU.

FB Name	FB	Summary	Value	LCD Prompt
LLCI	01	Level of collecting LLCI values.	1:None (no information) 2:Brief (important information) 3:Detailed (all information)	1:NON
Layer 3	02	Level of collecting Layer 3 messages.		2:BRIEF
Layer 2 and 3	03	Level of collecting Layer 2 and Layer 3 messages.		3:DETAILED
State Transitions	04	Level of collecting State Transitions.		
Errors	05	Level of collecting errors.		
Layer 2 States	06	Level of collecting Layer 2 States.		

- Press **FB01** to run a LLCI Trace. Press the **Scroll** or **Page** button to view Non, Brief, or Detailed options. Enter 1~3 to determine Trace Level.
- Press **FB02** and set CCL3 Trace Level. Press the **Scroll** or **Page** button to view Non, Brief, or Detailed options. Enter 1~3 to determine Trace Level.
- Press **FB03** and set L2L3 Trace Level. Press the **Scroll** or **Page** button to view Non, Brief, or Detailed options. Enter 1~3 to determine Trace Level.
- Press **FB04** and set STATE Trace Level. Press the **Scroll** or **Page** button to view Non, Brief, or Detailed options. Enter 1~3 to determine Trace Level.
- Press **FB05** and set ERRORS Trace Level. Press the **Scroll** or **Page** button to view Non, Brief, or Detailed options. Enter 1~3 to determine Trace Level.
- Press **FB06** and set L2 Trace Level. Press the **Scroll** or **Page** button to view Non, Brief, or Detailed options. Enter 1~3 to determine Trace Level.
- Press **Hold** to execute.
- Press **# # Hold** to return to the PROG= prompt.
- Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

All ISDN Trunk Trace

Program start/stop of packaged detailed collection of event trace functions. This program is only available in the telephone button programming mode.

Program Number(s): 905

Prerequisite Program: Format/Unmount Secure Digital/SmartMedia on page 13-14, ISDN Trace Location on page 13-11 and Event Trace Control on page 13-9

Reference: Install SmartMedia card

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter 905 and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Trace All ISDN Trunks	01	Output All ISDN Trunk Events to SmartMedia	1:On (default) 2:Off	1:ON 2:OFF

1. Press **FB01**.
2. Select **1**, or **2** to turn on or off.
3. Press **Hold** twice to execute.
4. Press **# # Hold** to return to the PROG= prompt.
5. Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

Event Trace Side Change

This program enables you to manage your ISDN protocol trace. This program is only available in the telephone button programming mode.

Program Number(s): 906

Prerequisite Program: Format/Unmount Secure Digital/SmartMedia on page 13-14

Reference: Install SmartMedia card

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **906** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Side Change	01	Enter desired parameter number	1:Message 2:ISDN 3:Message+ISDN	1:MESSAGE 2:ISDN 3:MESSAGE+ISDN

1. Press **FB01**.
2. Select **1**, **2**, or **3** to select parameter.
3. Press **Hold** to execute.
4. Press **# # Hold** to return to the PROG= prompt.
5. Enter another program number or press **# # Hold** again to exit programming mode.

Note When the CIX1200/CIX670 stops logging data, it automatically sends data to the Secure Digital or SmartMedia card. Run the Unmount command (Program 908) before removing the Secure Digital or SmartMedia card to ensure complete data transfer.

System Admin Log

Use this command to Start/Stop the System Admin Log.

Program Number(s): 907

Prerequisite Program: None

Reference: Install SmartMedia card

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **907** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Admin Log On/ Off	01	Enter 1 or 2 to Start or Stop Admin Log.	1:Start	1:START
			2:Stop	2:STOP

1. Press **FB01**. To run System Admin Log press **1 Hold** (twice). You are sent to the PROG= prompt.
2. To Stop the log, press **FB01** and press **2** on the dial pad.
3. Press **Hold** twice and wait for the PROG= prompt to appear before proceeding.

Note When the CIX1200/CIX670 stops logging data, it automatically sends data to the SmartMedia card. Run the Unmount command (Program 908) before removing the Secure Digital or SmartMedia card to ensure complete data transfer.

Format/Unmount Secure Digital/SmartMedia

This program enables administrators to format a SmartMedia card from the Strata CIX Network eManager or the telephone button pad.

Note Strata CIX Network eManager cannot view SmartMedia files directly. Additional hardware is required to view the contents of the SmartMedia card.

Program Number(s): 908

Prerequisite Program: None

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **908** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Control	01	<p>Choose SmartMedia card formatting method:</p> <p>Normal – creates any Strata CIX SmartMedia directory that does not exist already. Existing directories are not overwritten by this procedure.</p> <p>Forced – erases any existing directories and files. All existing data is overwritten. See Strata CIX Secure Digital/SmartMedia Directories below for more information.</p> <p>Unmount – writes data into SmartMedia Card. Always run unmount before removing the SmartMedia card to prevent damage to the card.</p> <p>Transfer – writes data from static RAM to SmartMedia Card.</p>	<p>1:Normal</p> <p>2:Forced</p> <p>3:Unmount</p> <p>4:Transfer</p>	<p>1:NORMAL</p> <p>2:FORCED</p> <p>3:UNMOUNT</p> <p>4:TRANSFER</p>

1. Press **FB01** to enter parameter. Enter **1~4** as your command choice. Press the **Scroll** or **Page** button to make your selection.
2. Press **Hold** to confirm and **Hold** again to execute.
3. Wait for the PROG= prompt to appear before proceeding.
4. Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

Strata CIX Secure Digital/SmartMedia Directories

Running the Normal and Forced options of this program creates five directories on the SmartMedia card as follows:

- **Admlog** – The Admlog folder saves
- **Errlog** – System error logs are saved into this folder.
- **Evnttrce** – Strata CIX eManager Event Trace files are saved into this folder.
- **Progdata** – Your Strata CIX programmed settings are all saved in this folder.
- **Program** – The operating software and default data of the Strata CIX is saved in this folder.

When a backup is performed, Strata CIX saves programmed data to the **Progdata** folder.

MAC Address (System Serial Number)

This program enables you to display your CIX1200 or CIX670 System Serial Number.

Program Number(s): 909

Prerequisite Program: None

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **909** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
MAC Address	01	Display System Serial Number.	12 digits	MAC Address

1. Press **FB01** to view parameter. The MAC Address is view only and cannot be changed.
2. Press **Hold** (twice) to exit to the PROG= prompt.
3. Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

Data Backup

This program enables you to Back up system data to a SmartMedia card.

Program Number(s): 910

Prerequisite Program: [“Format/Unmount Secure Digital/SmartMedia”](#) on [page 13-12](#) must be performed before running this program.

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **910** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Backup Function	01	Start and Stop system backup. Restore function is not operational and should never be executed. Use System Initialize (Program 900) Level 1 to restore system backup.	1:Backup 2:Restore (Do not use. See Note on left). 3:Cancel	1:BACKUP 2:RESTORE 3:CANCEL
Numbers	02	The number of data blocks. This number varies depending on the amount of programming the system contains.	Variable	ALL NO=
Current Number	03	This number increments as the backup progresses. When the backup is complete this number should match the total number of data blocks displayed in Numbers (FB02).	Variable	CUR NO=
Backup State	04	All_Ok – Backup completed with no errors. Partial_Ok – Backup has completed with errors. NG – Backup has failed. Cancel – Cancel Backup. Importing – Program data is being restored. Exporting – Program data is being sent out.	1:normal end all 2:normal end part 3:abnormal end 4:cancel 5:importing 6:exporting	

1. Press **FB01** to enter your Backup choice. Press the **Scroll** or **Page** button to view selection options.
2. Press **1**. FB01 and FB04 should blink green.
3. Press **Hold** to execute. Press **Hold** again to Cancel. This program stops running if you exit programming mode from your telephone.

To view Backup progress

1. While the program is running (FB01 and FB04 blink green), press **FB02** to view the total number of files to be transferred.
2. Press **FB03** to view the current file number that is being transferred.
3. The Backup is complete when FB04 blinks intermittently.
4. To verify success, push **FB04**. Your telephone LCD should indicate *1.ALL_OK.
5. Press **# # Hold** to exit.

Note Do not press the **Hold** button. Pressing the **Hold** button restarts the Backup procedure.

To Restore data from the SmartMedia card to Strata CIX, see [“System Initialize” on page 13-5](#).

Program Update

This program enables you to update the Strata CIX programs.

Program Number(s): 911

Prerequisite Program: Format SmartMedia Card. Before running this program make sure the SmartMedia card is properly formatted. See [“Format/Unmount Secure Digital/SmartMedia” on page 13-12](#) for more details.

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **911** and press **Hold**.

FB Name	FB	Summary	Value	LCD Prompt
Update Function	01	Enter 1 or 2 to identify the type of Update intended. Select 3 to cancel a running update.	1:Update 2:Reboot 3:Cancel	1:Update 2:Reboot 3:Cancel
Total Blocks	02	View total blocks to be updated (total blocks will vary depending on software versions).	0~65536 (CIX1200/670) 0~128 (CIX100) default = 0	n/a
Copied Blocks	03	View number of blocks copied.	0~65536 (CIX1200/670) 0~128 (CIX100) default = 0	n/a
Active Side Status	04	Backup Type Display	1:Normal 2:Trial 3:Fault 4:Don't Care 5:Error	1:Normal 2:Trial 3:Fault 4:Don't Care 5:Error
Stand by Side Status	05	Stand by Backup Type	1:Normal 2:Trial 3:Fault 4:Don't Care 5:Error	1:Normal 2:Trial 3:Fault 4:Don't Care 5:Error

FB Name	FB	Summary	Value	LCD Prompt
Active Side Number	06	Active Side Number.	0 or 1 default = 0	ACT SIDE=
Status	07	View Backup Status.	1:Idle 2:Running 3:Success 4:Error	1:Idle 2:Running 3:Success 4:Error

1. Press **FB01** to enter your Backup choice. Press the **Scroll** or **Page** button to view your selection options.
2. Press **1**. FB01 and FB04 should blink green.
3. Press **Hold** to execute. Press **Hold** again to Cancel. This program stops running if you exit programming mode from your telephone.

Make Busy Control

When an error occurs in hardware resources used for a station or a line fails, this feature makes them busy. The station or line card can be disabled temporarily to perform maintenance or parts replacements as well. This program is only available in the telephone button programming mode.

Program Number(s): 912

Prerequisite Program: Format SmartMedia Card

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **912** and press **Hold**.

At the **CABINET=** prompt enter the Shelf number.

Note The Shelf number is entered in "XX" format where Shelf is a two digit value from 01~07 corresponding to the Strata CIX Cabinet number. See "Program Button LEDs" below for a description of the LED display.

FB Name	FB	Summary	Value	
Equipment	00	Enter Cabinet Number	01~07 (value=xx)	
Slot #1	01	Enter 1 or 2	1: Set make busy 2: Clear make busy	
Slot #2	02			
Slot #3	03			
Slot #4	04			
Slot #5	05			
Slot #6	06			
Slot #7	07			
Slot #8	08			
Slot #9	09			
Slot #10	10			

1. Press **FB01~FB10** to enter your Make Busy selection for the appropriate Slot in the Cabinet entered in Access Sequence above.

Note The slot to which your programming phone is connected cannot be set to Make Busy.

2. Press **Hold** to execute.
3. Press **Hold** again to return to CABINET= prompt.
4. Press **# # Hold** to return to the PROG= prompt.
5. Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

Program Button LEDs

The LED blink pattern indicates the following:

- Red continuous blinking – PCB experienced a Make Busy status error.
- Red continuous illumination – PCB Make Busy Status mode is on.
- Green continuous blinking – PCB Make Busy Status mode is stand by.
- Green intermittent blinking – PCB Make Busy Status mode is idle.

Regional Selection

Set Operating region for your Strata CIX. This assignment sets built-in core LSI hardware parameters that are not changeable with jumpers or switches. These parameters must be set unique for each country and affect system operation.

Program Number(s): 915

Prerequisite Program: None

Reference: None

Access Sequence: Select Maintenance > Hardware Info. and Control > CIX Processor

Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **915** and press **Hold**.

Field	Description	Value	LCD Prompt
Region	Set region number. 0~2 are valid entries for North American Operations.	0~31 (USA = 0, Canada = 1, and Mexico = 2)	REGION=

1. Press **FB01**. Enter **0~2**. Press **Hold**.
2. Press **Hold** (twice).
3. Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

IP Configuration

This program enables you to set up Network Communication Protocols.

Program Number(s): 916

Prerequisite Program: None

Reference: None

Access Sequence: Login to programming mode from your telephone button pad:
Hold Q#Q#1Q2Q3Q.

At the **PASSWORD=** prompt enter your password and press **Hold**.

At the **PROG=** prompt enter **916** and press **Hold**.

FB Name	FB	Summary	Value
IP Address	01	Enter IP Address 1 192 = First IP Address Octet 168 = Second IP Address Octet 254 = Third IP Address Octet 253 = Fourth IP Address Octet	0~255 default = 192.168.254.253
Subnet Mask	02	Enter Subnet Mask Address 1	0~255 default = 255.255.255.0
Default Gateway	03	Enter Default Gateway 1	0~255 default = 0.0.0.0

Notes

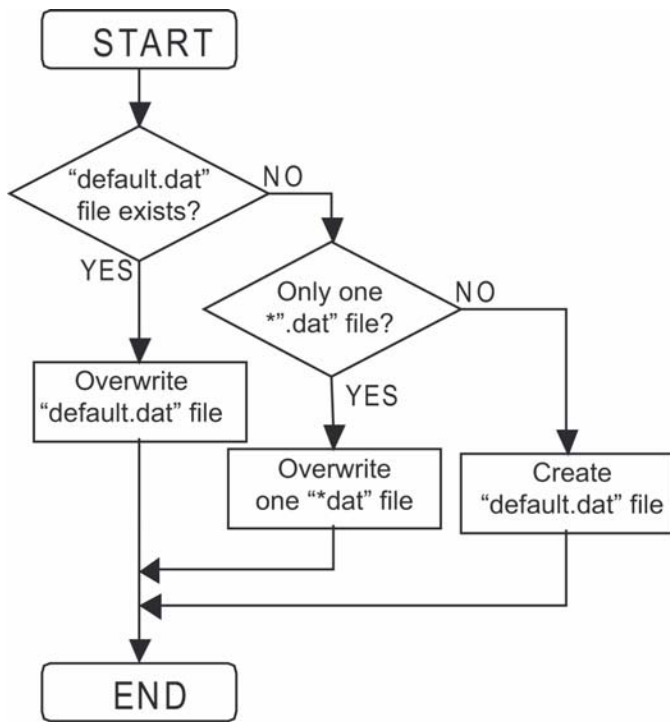
- The LCD only displays three of the twelve IP address digits at a time. Press the **Speaker** button to view the remaining digits.
 - The IP Address is the static IP address of the Strata CIX processor NIC/Ethernet connection only. The PPP IP address for the Strata CIX processor modem is always 192.168.255.254 and cannot be changed.
1. Press **FB01** to view the current TCP/IP Address 1 (press **FB02** to view the current Subnet Mask Address 1, or press **FB03** to view Default Gateway Address 1).
Press **Hold**.
 2. Enter first IP Address Octet. To keep current setting go to Step 3.
 3. Press **Speaker** button and enter second IP Address Octet. To keep current setting go to Step 4.
 4. Press **Speaker** button and enter third IP Address Octet. To keep current setting go to Step 5.
 5. Press **Speaker** button and enter fourth IP Address Octet. To keep current setting go to Step 6.
 6. Press **Hold**.
 7. Press **FB02** to configure the remaining parameters.
 8. Press **Hold**.
 9. After all parameters are entered press **Hold** to submit the new settings.
 10. You are automatically returned to the **PROG=** prompt.
 11. Enter another program number to continue programming or press **# # Hold** again to exit programming mode.

Data Backup and Restore

Backup Feature

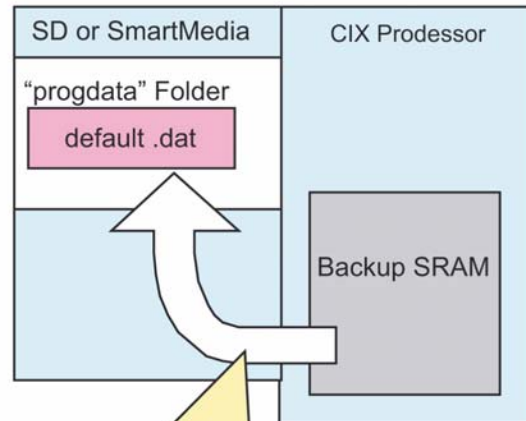
Backing up your files creates a *.dat file. The file is automatically named default.dat (as shown in Case 1 below). If one already exists it is overwritten (as shown in Case 2). If more than two *.dat files exist in the progdata folder, a file whose name is default.dat is created (shown in Case 3).

CAUTION! Release 4 will overwrite the default.dat file. This is different than previous Strata CIX/ CTX versions that will not overwrite an existing default.dat file.

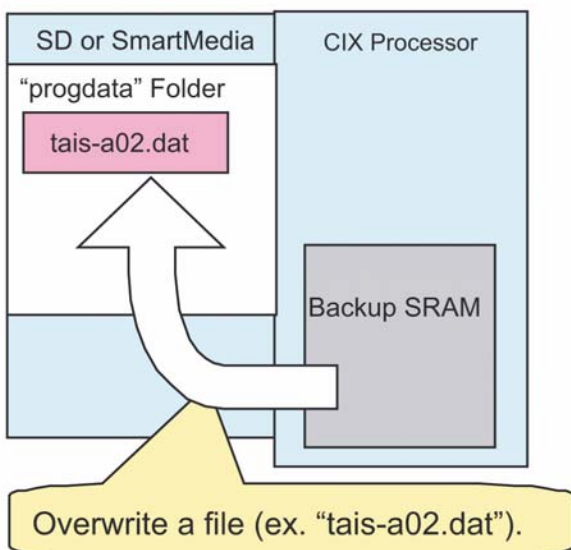


Save File Treatment Algorithm

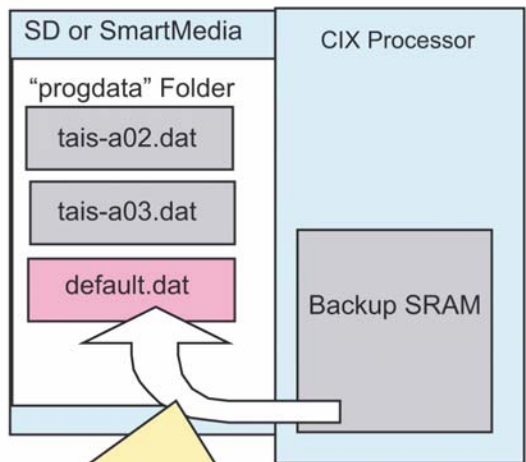
(No change)



Case 1. Create in empty
"progdata" folder



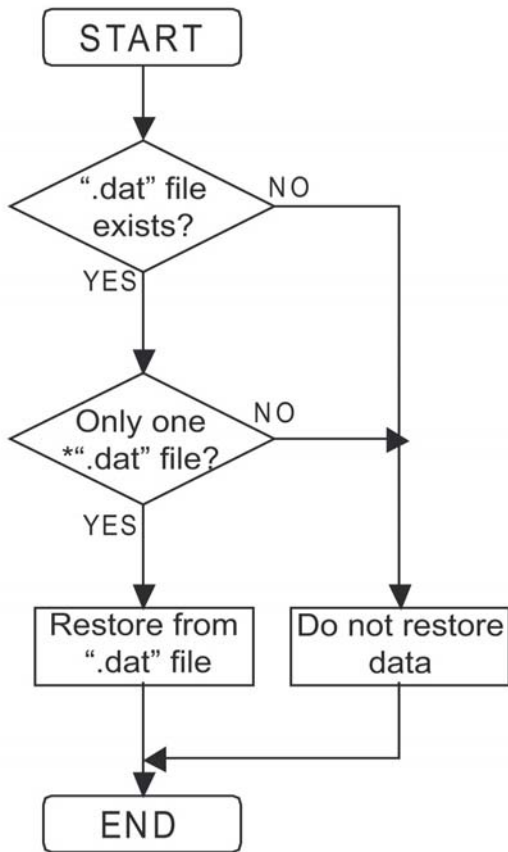
Case 2. One file in "progdata" folder



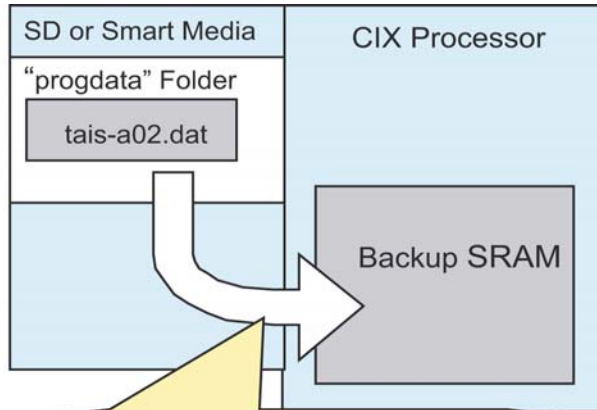
Case 3. Two or more files in
"progdata" folder

Restore Feature

To restore files, you can only have one programming data file whose name is "*.dat" in the progdata folder (shown in Case 1 below). You can name the file anything you want based on the rules given above. If there are two or more "Programming data files" in the progdata folder, it cannot be used to restore files (shown in Case 2 below).

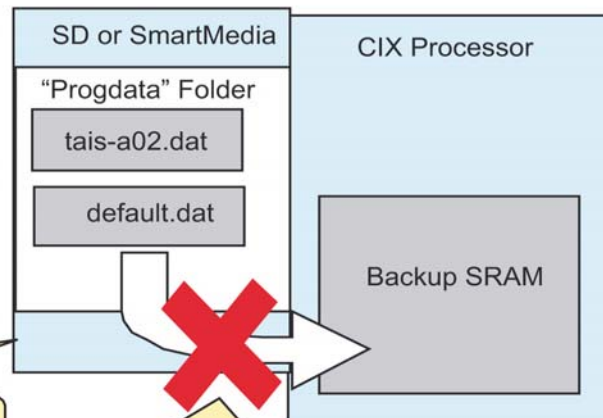


Restore File Treatment Algorithm



Restore the Programming Data when only one *.dat file exists in "progdata" folder. You can give the file name other than "default.dat" (ex. "tais-a02.dat").

Case 1. Restore will operate



Ignore *.dat files which exist in other than "progdata" folder.

Do not restore the Programming Data when more than one *.dat files exist in "progdata" folder.

Case 2. Restore will not operate

Data Backup and Restore

System Turn-on and Start-up Time

When a Release 4.0 or later system is turned on, it takes about 30-90 seconds to operate. CIX Release 2.x and 3.x take about 15 seconds.

R3.0 and Earlier Data Backup

This section provides Strata CIX maintenance procedures that can be activated from the programming telephone. These procedures are for R3.0 and earlier systems. For SmartMedia, refer to [“Format/Unmount Secure Digital/SmartMedia”](#) on [page 13-12](#).

1. Format the SmartMedia using [“Format/Unmount Secure Digital/SmartMedia”](#) on [page 13-12](#) (Program 908).
2. Insert the formatted SmartMedia into Strata CIX.
3. Backup data using [“Data Backup”](#) on [page 13-14](#) (Program 910). LED indicators should show the following:
 - **FB01~FB03** solid red light.
 - **FB04** intermittent green.
4. Press **FB01** and choose Backup by pressing **1** on the telephone button pad.

CAUTION! Never use Restore (2). It is not valid for current versions of CIX software and could result in corrupt databases and system mis-operation.

5. Press **Hold**. Backup for programmed data starts. The LED indicator **FB04** consistently blinks green during back up. After back up is complete, **FB04** will flash inconsistently slower.

CAUTION! Do not press Hold while Backup is being performed.

6. Press **Hold** twice to exit programming.

Backup Progress and Completion Indicators

You can monitor Backup progress by pressing the **FB02** or **FB03** buttons as follows. See [“IP Configuration”](#) on [page 13-18](#) for more details.

- If the value displayed in the LCD is increasing each time **FB03** is pressed, the Backup is proceeding successfully.
- When the value displayed in the LCD for **FB03** and **FB02** are the same, the Backup process is complete.
- When the **FB04** LED returns to an intermittent green, Backup is complete.
- Press **FB04** to verify Backup is completed. If the LCD displays *1:ALL_OK the Backup was successful.

Restoring Programmed Data

To restore data from a Backup performed onto SmartMedia follow the directions below:

1. Insert the SmartMedia card that has the system's default.dat file (under the PROGDATA folder) into the Strata CIX SmartMedia slot.
2. Run Program 900 "System Initialize" on [page 13-5](#), Level 1 (ALL DATA CLEAR). See programming steps below.

Restoring data takes anywhere from 10 minutes to one hour for completion depending on the size of the database (default.dat file).

3. When the programming telephone LCD becomes active, enter the programming mode and enter your password.

Restore is complete if the system accepts the password and enables you to enter programming mode.

4. Remove the SmartMedia card and restart the CIX again after restoring system data. This is necessary to reset xIPU, Strata Net, Strata Net, ISDN and other advanced features.

Local Update

The following procedures are required for Local Update of all CIX systems.

Prerequisites for CIX100, CIX200, CIX670 and CIX1200 Local Update

The following are the prerequisites for Local Update:

- The SmartMedia card must be installed in the system with a Backup of the current database (default.dat) file.
- Activation of the new software requires a clear-reboot operation that will drop all existing calls and will take the system out of service from 10 minutes to an hour or more depending on the system size.
- Requires a different system software Update file (provided on the Toshiba FYI site), depending on the type of CIX system and the type of Update that will be performed.

CIX Software Update Files

Each Strata CIX system type has two Software Update files: one for Network eManager Remote Update and another file for Local Update (to use with the programming telephone procedure).

CAUTION! Using the wrong file in either case will cause the Update to fail.

CIX Software Identification

Refer to the table below to identify CIX software release and builds in software file names or when verifying CIX software versions.

Software Release	Software ID
R1.00 and R1.01	= M01nn
R1.02	= MA2nn
R1.03	= MA3nn
R1.3	= ME0nn
R2.0	= MF0nn
R2.1	= MG0nn
R3.0	= MJ0nn
R4.0	= ML0nn
R4.1	= MN0nn or =MN2nn
R4.2	= MP0nn
R5.0	= MR0nn
R5.1	= MS0nn
R5.2	= MT0nn

nn = Software build level/number

Step 1: Download and Extract CIX Software

The latest released version of CIX system software Update files are posted on the Toshiba FYI site <http://fyi.tsd.toshiba.com>. To download the software files, follow the procedure below.

Step 1A: To Download CIX System Software Files from FYI

1. From the Toshiba FYI website, click on Technical Services > Software (Strata Systems). The files are located under the appropriate System Software heading.
2. Double-click the appropriate link: System Software: Software (Local Update)
3. When the Toshiba Software License Agreement screen displays, click the **Agree** button. The File Download dialog box displays.
4. Select the "Save this program to disk" radio button, then click **OK**. The Save As screen displays.
5. Save the file to an appropriately named folder that identifies the system type and software version, then click **Save**.

Step 1B: Extract Downloaded Files

1. After the download is complete, select the Open or Open Folder button on the Download Complete screen to extract/open the files now, or select the Close button to extract the files later.

Notes

- The WinZip Self-Extractor screen displays if you selected the Open or Open Folder button.
- If you selected Close, double-clicking the .exe file later will bring up the WinZip Self-Extractor screen.

These files are the self-extracting .exe files.

2. In the "Unzip to folder:" field, make sure the path leads to the correct folder as shown below. If the path is incorrect, click the **Browse** button to navigate to the appropriate path, then click the **Unzip** button.
3. Verify the unzip folder path for Local Update: SmartMedia Drive:\PROGRAM

- Verify the unzipped files or folders for Local Update of the Strata CIX100, CIX670 and CIX1200 the file name is the same "nhs.prg".

The files can also be extracted to a temporary folder and then copied to the appropriate SmartMedia PROGRAM folder or Strata eManager Upload folder. The extracted (decompressed) files will be approximately 15MB.

Step 2: Choose Strata CIX100, CIX200, CIX670 or CIX1200 for Local Update

Choose one of the following:

- Strata CIX100 Local Update
- Strata CIX200 Local Update
- Strata CIX670 Local Update
- Strata CIX1200 Local Update

Strata CIX100 Local Update

The Update process is used to change the Strata CIX software version and restore programmed data. The new software is first loaded on the SmartMedia card. It is then transferred to the Strata CIX100 processor flash RAM. The Strata CIX100 programmed data is then restored.

Step 1: Prepare SmartMedia Card with Backup of Customer Database

This SmartMedia card will contain a back up of the Strata CIX programmed data (default.dat).

- Insert a SmartMedia card into the CIX, format it, and then back up the customer database onto the SmartMedia card using the Backup Data procedure (see the "[R3.0 and Earlier Data Backup](#)" on [page 14-4](#)).

This operation writes the default.dat file under the PROGDATA directory to the SmartMedia card.

- Remove the SmartMedia card from the CIX and physically label it "Strata CIX Backup data."

Step 2: Prepare SmartMedia Card with a Copy of New CIX Software

This SmartMedia card will contain the new Strata CIX software file (nhs.prg) used to Update the system software:

- Obtain the Strata CIX operating software file (nhs.prg) from Toshiba FYI and store it on an appropriately named folder on your PC (see the Download and Extract CIX Software procedure on [page 1](#)).
- Insert a SmartMedia card into Strata CIX processor SmartMedia socket and activate the Forced Format command using Program 908; then Unmount SmartMedia using Program 908.
- Remove the formatted SmartMedia card from the CIX and Install the SmartMedia card into a PC SmartMedia reader/writer.
- Copy the new Strata CIX software file named "nhs.prg" into SmartMedia card PROGRAM folder.

Note It is not necessary to create a SmartMedia Card Volume label for CIX100 Update. However, if you create a volume label, do not use PRGUPDATE, PRGRESUE0, or PRGRESUE01 as volume labels.

- Pull out the SmartMedia card and physically label it "CIX100, MXnnn" or whatever software version you are updating to.

Note After completing Steps 1 and 2 above you should have two SmartMedia cards:

- One card containing the CIX backed up database file: PROGDATA\default.dat
- One card containing the CIX software update file: PROGRAM\nhs.prg

Step 3: Update CIX100 Software

CAUTION! This operation will take the system out of service for 10 minutes to an hour or more depending on the CIX database.

1. Insert the SmartMedia card containing PROGRAM\nhs.prg file into the Strata CIX processor SmartMedia socket.
2. From the programming telephone enter Program 911, and press Hold. Press FB01 and dial 1 (UPDATE) and then press Hold.

CAUTION! Pressing Hold twice will cause the Update to fail

After a short pause the CIX will begin to upload the software from the SmartMedia card to the processor flash RAM causing the following:

- If FB07-LED is flashing green, it indicates that the Update process is in progress.
 - If FB07-LED is flashing red, it indicates an error. This could be caused by a corrupt or incorrect nhs.prg file or a defective SmartMedia card. Make sure the file is a CIX100 nhs.prg file and not CIX670 or CIX1200 file.
 - You can now check the Update progress using FB02 (Total) and FB03 (Copied) to view data block status. Periodically switch between FB02 and FB03 to view the data blocks.
 - When all the data blocks are copied the CIX stops normal processing and all telephone LCDs go blank.
 - The processor Heartbeat LED is on steady red.
 - The processor SmartMedia LED turns on flashing rapidly at first, then flashes slowly and finally stops flashing.
 - The above will last about five to 10 minutes.
 - When the Update is complete the system begins to operate normally with default data.
3. Use Program 901 to check that the new software version of CIX software has been loaded. If you cannot enter the Program Mode the new software may still be loading.
 4. Remove the SmartMedia card (which contains PROGRAM/nhs.prg file) from the CIX processor.

Step 4: Restart and Restore Strata CIX100 Backup Data

1. Insert the SmartMedia labeled "Strata CIX Backup data" which you previously made at the start of this procedure. This card contains PROGDATA/default.dat file.
2. From the programming telephone enter Program 900. Press **FB01** and dial **1** (ALL DATA CLEAR) and then press **Hold** (twice). The Strata CIX will restart (initialize) on the new software and restore the backed up program data. The time required for this operation will vary from a few minutes to 30 minutes or more depending on the size of the database.

Step 5: Confirm Software is Updated and Backup Data is Restored

1. When the telephone LCDs display and system dial tone is available, try to log in to the Programming Mode from digital telephone. (If Update/Restore is finished, you can log in).
2. From the programming telephone check the Strata CIX version number using Program 901.
3. Turn the CIX100 power off for 5 seconds and then back on to reset QISG, ISDN and other advanced features.
4. Test the system to verify that the new software is running properly by checking dial tone, making incoming and outgoing calls, internal and external calls and all other peripherals, such as voice mail, etc., are working correctly.
5. Toshiba recommends that the SmartMedia card containing the customer data remains installed on the CIX processor. This enables you to make and back up changes using Network eManager remotely.

Important! It is your responsibility to verify the system is working correctly after local Update is complete.

Strata CIX670 or CIX1200 Local Update

The Update process is used to change the Strata CIX software version and restore programmed data. The new software is first copied from the SmartMedia card to the standby side of the Strata CIX processor flash RAM. Then the new software on the Standby flash RAM is switched to the active mode and the original software is switched to the Standby mode for a trial run.

After swapping the software version making the new software “Active,” the Strata CIX restores the programmed data. If the system functions properly, the trial operation can be set to normal operation; if there are problems you can switch the original software back to Active.

A CIX default.dat database can only be restored to a CIX software version that is the same or higher than the CIX software version on which the default.dat file was created.

Examples:

- A default.dat created on CIXR2.0 MF013 can be restored on an R2.0 MF013, MF014 and higher.
- R2.2 MF0XX, R2.1MG0XX (XX = 01~99), cannot be restored on R2.0 MF012, MF011 and lower, or R1.X ME0XX, MD0XX, etc.

Step 1: Prepare SmartMedia Card with a Backup of the Customer Database

This SmartMedia card will contain a Backup of the Strata CIX programmed data (default.dat).

1. Insert a SmartMedia card into the CIX, format it, and then back up the customer database onto the SmartMedia card using the Backup Data procedure (see “[R3.0 and Earlier Data Backup](#)” on [page 14-4](#)).

This operation writes the default.dat file under the PROGDATA directory to the SmartMedia card.

2. Remove the SmartMedia card from the CIX and physically label it “Strata CIX Backup data.”

Step 2: Prepare SmartMedia Card with a Copy of the New CIX Software

This SmartMedia card will contain the new Strata CIX software file (nhs.prg) used to Update the system software.

1. Obtain the Strata CIX operating software file (nhs.prg) from Toshiba FYI and store it on an appropriately named folder on your PC – see “[Download and Extract CIX Software](#)” on [page 14-6](#).
2. Insert a SmartMedia card into Strata CIX processor SmartMedia socket and activate the Forced Format command using Program 908; then Unmount SmartMedia using Program 908.

3. Remove the formatted SmartMedia card from the CIX and install the SmartMedia card into a PC SmartMedia reader/writer.
4. Copy the new Strata CIX software file named "nhs.prg" into SmartMedia card PROGRAM folder.
5. Create a SmartMedia Card Volume label "PRGUPDATE" on CIX Update SmartMedia card as shown:
 - Select and right mouse click the appropriate SmartMedia drive, for example, drive E or G in some computers.
 - Click Properties.
 - Under General tab, in the Label field enter label name (in this case PRGUPDATE).
6. Pull out the SmartMedia card and physically label it "CIX670, MXnnn, "CIX1200, MXnnn"" or whatever software version you are updating to.

Note After completing Steps 1 and 2 above you should have two SmartMedia cards:

- One card containing the CIX backed up database file: PROGDATA\default.dat
- One card having the volume label "PRGUPDATE" and containing the CIX software Update file: PROGRAM\nhs.prg

Step 3: Update CIX670 or CIX1200 Software

1. Insert the SmartMedia card containing PROGRAM\nhs.prg file into the CIX processor SmartMedia socket.
2. From the programming telephone enter Program 911, and press **Hold**. Press **FB01** and dial **1** (UPDATE) and then press **Hold** once. Pressing **Hold** twice will cause the Update to fail. This will not interrupt the CIX system operation.
 - If FB07-LED is flashing green it indicates that the Update process is in progress.
 - If FB07-LED is flashing red it indicates an error. This could be caused by a corrupt or incorrect nhs.prg file or a defective SmartMedia card. Make sure it is a CIX670 or CIX1200 nhs.prg file and not a CIX100 file.
 - You can now check the Update progress using **FB02** (Total) and **FB03** (Copied) to view data block status. Periodically switch between **FB02** and **FB03** to view the data blocks.
 - When FB07-LED is solid green with periodic short blinks, it indicates the first part of Update completed successfully (2 to 10 minutes).
3. After FB07 is on solid green with a periodic wink, press Hold, while in Program 911. Press **FB05** and dial **2** (TRIAL) and then press **Hold**. This will change the status of the Standby Flash Memory to trial.
4. Pull out the SmartMedia card labeled PRGUPDATE (which includes PROGRAM/nhs.prg file).
5. Insert the SmartMedia CARD labeled "Strata CIX Backup data" into processor/ SmartMedia socket. The SmartMedia LED on the processor begins to blink.

The "Strata CIX Backup data" SmartMedia card is the card you previously made that includes the Strata CIX programmed data in the default.dat file under the PROGDATA folder. If this is not done before starting Clear-reboot, all programmed data will be lost.

The next operation will take the system out of service for 10 minute to an hour depending on the size of the CIX database.
6. From the programming telephone enter Program 911 and press Hold; press **FB01** and dial **3** (CLRREBOOT) and then press **Hold**. This will Clear-reboot the system to switch the new software version from standby to active and restore Backup data.

CAUTION! This operation will take the system out of service for 10 minutes to an hour or more depending on the CIX database. Do not skip any steps or the Update will fail.

Notes

- If CLRREBOOT is activated without the Backup data SmartMedia card installed, the active and standby software is swapped and the system default program data is restored.
 - The Strata CIX processor heartbeat LED stops flashing and all telephones become inactive. After a few minutes the Strata CIX initializes and starts up with new version of software as active and the original software as standby, and then restores the backed up program data from the SmartMedia card default.dat file (the processor SmartMedia LED flashes while it restores the program data to the processor RAM).
 - After CLRREBOOT has completed the new version of CIX System software will be active in Trial mode.
 - If system power is turned off/on while the Active side of flash memory is in the Trial mode, the original software switches back to active and the new software will switch back to Standby. This is to provide an automatic method of switching back to the original software version if the new version is causing problems.
7. Confirm that the software is updated and the Backup data is restored by verifying/doing the following:
- Make sure the processor SmartMedia LED is off.
 - Log in to programming mode from a digital telephone. If you cannot log in, it means the data restore process is not completed.
 - From the programming telephone, in Program 901 make sure that the new Strata CIX system software version number is on the active side. **FB01** shows the new system software version number on the active side, and **FB02** shows the original software version number on standby side.
8. Set the Active side of flash RAM from "Trial" to "Normal" as follows:
- From the programming telephone, enter Program 911 and press **Hold**. Press **FB04** and dial 1 (NORMAL), then press **Hold**. The new software is on the active side running in Normal mode.
 - If Strata CIX power is turned off/on before the Active side is switched to "Normal", the Strata CIX will automatically perform a CLRREBOOT and make the old software active.
- Note** The active side switches from "Trial" to "Normal" automatically after 24 hours if it is not done manually using Program 911.
9. Remove the SmartMedia card and turn the power off for 5 seconds and then back on to reset BIPU-M, BIPU-Q, QISG, ISDN and other advanced features.
10. Test the system to verify that the new software is running properly by checking dial tone, making incoming and outgoing calls, internal and external calls and all other peripherals, such as voice mail, etc., are working correctly.
11. Toshiba recommends that the SmartMedia card containing the customer data remains installed on the CIX processor. This enables you to make and backup changes using Network eManager remotely.
- Important!** It is your responsibility to verify the system is working correctly after local Update is complete.

Remote (Network eManager) Software Update

A local update starts with the update software loaded on the SD/SM memory card. The update software is then copied to the processor card RAM. Obviously, the technician must be 'local' to the system to plug the SD/SM card into the processor.

A remote update copies the update software from the Network eManager (NeM) PC to the Strata CIX system processor card. This process can be performed at a location that is remote from the processor card or on site.

Update Process

The following procedure details the process.

- Download the Update software
- Backup the Strata CIX system database
- Upload the update software

Download the Update Software

1. Create a software update folder on your PC.
2. Download the update software from the Toshiba FYI website. Ensure that the 'Remote Update for use with Network eManager' file is selected for download.
3. Save the file to an update folder on your PC. Do not unzip the file.

Backup the System

4. Launch Network eManager.
5. Connect to the Strata CIX system to be updated.
6. Select **Maintenance > CIX Data Backup**.



Update the System Software

- Use the Browse button to open the folder with update file downloaded from the FYI web site.

Would you like to backup CIX data prior to update?

Step 1- Choose CIX software update .zip file(s)

Upload New Software For:	Path
CIX40	<input type="text"/> <input type="button" value="Browse..."/>
CIX100	<input type="text"/> <input type="button" value="Browse..."/>
CIX200 CIX670	download\CIX200_670_R_MT025.zip <input type="button" value="Browse..."/>
CIX28	<input type="text"/> <input type="button" value="Browse..."/>
CIX1200	<input type="text"/> <input type="button" value="Browse..."/>

- Click on the **Step 2 - Upload file(s) to eManager server** button.
- Click to check-mark the **Upgrade** and **AutoActivate** boxes.

Software update files have been uploaded successfully to eManager server!

Equipment	New Version	No of File
CIX200 CIX670	A182MT02500	1

Step 3- Choose CIX to update

TRACT

Upgrade AutoActivate [tract] cix200 [CIX200 : LCTU AR5.20 MT022.00] ██████

Note: Upgrading equipment is a lengthy and complex process. It may take up to 30 minutes. Once you start the process please don't exit the page until the process is completed. Once the process is completed you will be re-directed to the connection page to re-connect. Please wait two to three minutes before attempting to reconnect to the systems.

Note Calls will drop during the database restore process. Depending on system size this may that several minutes.

- When the **Connect to Client** screen appears; Wait until the telephones connected to the system reset (this may take approximately 30 minutes).
- Connect to the system to verify the equipment version.

Update from R3 to R5 (or later) SD/SM Cards

To update Strata CIX100 and CIX670 R3 systems to R5 software requires new processor cards. The older processors use SM memory cards, R5 and later processors use SD memory cards.

Note The process requires a SM/SD adapter for your PC.

To backup an R3 database to restore on an R5 processor use the following procedure.

1. Connect the Strata CIX system using Network eManager. Note the MAC address of the processor.
2. Backup the system database to the on-board SM. The backup will be the DEFAULT.DAT file in the PROGDATA file on the SM card.
3. Download the default.dat file from SM to a file on your PC. The path to the PROGDATA folder on your PC is: C:\eManager\main\eManager\UserData\Administrator\<MAC address of the processor card>\SM.SD_CARD
4. Copy the file from your PC to the PROGDATA folder on the SD card.
5. Power down the system and remove the processor card.
6. Insert the new processor card. Insert the SD card into the connector on the processor card.
7. Power up the system.
8. Copy the file from your PC to the PROGDATA folder on the SD card.
9. After the SW update restore the database from the SD card. When using the Network eManager update procedure this step is automatic. The SD card must be in the processor card for this function to execute automatically.


Update from R3 to R5 (or later) Local PC

To update Strata CIX100 and CIX670 R3 systems to R5 software requires new processor cards. The older processors use SM memory cards, R5 and later processors use SD memory cards.

Note This process requires a PC with Network eManager.

To backup an R3 database to restore on an R5 processor use the following procedure.

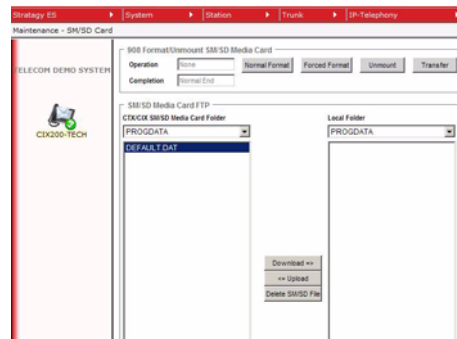
1. Connect the Strata CIX system. Note the MAC address of the processor.

	Site (location):	TSD
	Equipment Type:	CIX200 : LCTU
	Equipment Version:	AR5.20 MT029.00
	Equipment Name:	CIX200-TECH
	IP Address:	98.174.157.60
	Voice Mail:	98.174.157.62
	VM Software Version:	5.5.10
	MAC Address:	00080d9ab1f0
	Country:	USA

2. Backup the system database to the on-board SM. The backup will be the DEFAULT.DAT file in the PROGDATA file on the SM card.



3. To copy the DEFAULT.DAT file from SM to a file on your PC select the PROGDATA Media Card Folder on the left side of the screen. Highlight the DEFAULT.DAT file then, click on the **Download** button.



4. The system will copy the DEFAULT.DAT file to your PC.
5. Power down the system and remove the processor card.
6. Insert the new processor card. Insert the SD card into the connector on the processor card.
7. Power up the system.
8. Connect the Strata CIX system. Note the MAC address of the new processor.
9. The path to the PROGDATA folders on your PC is:
C:\eManager\main\eManager\UserData\Administrator\<<MAC address of the processor card>\SM.SD_CARD
10. Copy the DEFAULT.DAT file from the PC folder of the old processor to the PROGDATA folder on your PC for the new processor. Note: Network eManager selects the folders to upload to, or download from by the processor MAC address.
11. Select the DEFAULT.DAT file on the right side of the screen. Highlight the PROGDATA folder on the left side of the screen. Click on the **Upload** button.
12. After the file has copied Initialize the processor.

This page is intentionally left blank.

This appendix contains guides to setup and program specific applications such as Voice Mail, IP Telephony, StrataNet and others.

Voice Mail Set Up

The following steps/program sequences are provided as a guideline to programming system voice mail settings.

Analog Ports

1. Program 100 Card Slot Assignment. Assign the PCB for voice mail ports (RSTU).
2. Program 200 Station Data. Verify fields 01~04.
 - field 03 Circuit Type – Assigns voice mail to be assigned to PDNs associated with voice mail RSTU circuits.
 - field 15 Display DN – DN to be displayed and assigned to hunt group. Manually assign DNs and equipment.
3. Program 209 Station Hunting Group. Voice mail group is determined by the hunt group.
4. Program 218 Station Hunt Group Assignment.
5. Program 579 System Voice Mail Data. Complete, fields 01~17.

Notes

- 10 - Central VM Callback – Enter the node ID and hunt group for voice mail. Used for centralized voice mail SMDI only.
 - DTMF – Message Waiting Call Back DN across Strata Net TIE lines. DTMF integration uses the number that displays in Program 200, field 15.
6. Program 580 Voice Mail Port Data. This is the collection of all ports.
 7. Program 803 IO Logical Device Assignment. You can add members to the hunt group. Assign RS-232 port for SMDI.

Note System only provides Code 300 for SMDI. Code 301 is not supported.

8. Program 804 BSIS RS-232 Serial Port setup.
9. Program 309 Direct Inward Dialing.
 - field 11 - DID/DNIS No. Code
 - field 15 - VM Application Digits
10. Program 318 DID Intercept Assignment.
 - field - 11 DID/DNIS No. VMID
 - field - 15 DID/DNIS No. DTMF VMID

Digital Ports

1. Program the following initial settings:
 - Program 100 – Set cabinet slot PCB type to “BDKU/BDKS or BWDKU 16 DKTs without Spkr OCA”.
 - Program 200 (Basic tab) – Assign stations to the slot and assign as voice mail. For example, 200~215 (for 16 ports). Set field 15 - Display DN as the pilot number of the voice mail hunt group. This value should be the same as field 04 - Number to Display in Program 209.
 - Program 204 (DKT tab) – Change station’s field 05 to Tone First, 21- Adapter: BPCI, 19 - Continuous DTMF: Not Continuous. Copy the changes to all voice mail stations.
 2. Install and program serial card BSIS in the Strata CIX.
- Note** CIX Proprietary Integration is required for the iES16 or iES32. A BSIS card must be installed in the Strata CIX.
3. Install a serial cable between the BSIS card and the Stratagy (see CIX wiring diagrams in the Strata CIX and MAS Installation and Maintenance Manual, Peripheral Installation chapter).
 4. Program 803 - Specify CIX BSIS output port # and set the port type to be “300 SMDI #0” and “RS-232”.
 5. Program 804 - Set the port attributes to:
 - field 01 - Baud rate: 9600
 - field 02 - Parity: none
 - field 03 - Data Bits: 8
 - field 04 - Flow control: 1
 - field 05 - Wait timer: 0
 6. Program 579 - System Voice Mail Data. Complete fields 01~17.
 7. Program 580 – Set all CIX voice mail ports as SMDI integration.
 8. Program Station Hunting Programs 209 and 218

Telephone Station Ports

1. Program 200 Station Data.
 - field 19 VMID Code – Voice Mail ID number to send in SMDI and DTMF in-band integration for forwarded and direct calls.
 - field 22 VM MW Center Port – Message Waiting center DN.
2. Program 579 System Voice Mail Data.
 - Complete fields 11~15.
3. Program 204 DKT tab.
 - field 23 Mailbox Selection – Used for the Voice Recording Feature. Uses the VMID from Program 200 if set to Auto or allows the user to enter any valid mailbox on Stratagy followed by #.
4. Program 206 Phantom DN.
 - field 06 VM ID Code – Voice Mail ID number to send in SMDI and DTMF in-band integration for forwarded and direct calls.
 - field 09 Message Center – Message Waiting center DN.

Networking Multiple Voice Mail Systems

More than one voice mail system can be connected to one network node and one or more voice mail systems can be connected to multiple nodes. Access, integration and message waiting are controlled on a call-by-call basis according to parameters assigned to individual extensions. There is nothing to prevent a single DKT from having access to four voice mail systems, each connected to a remote node.

The Primary DN and three PhDNs are each programmed with independent voice mail destinations, voice mail IDs and record and playback codes. Figure A-1 is an example for networking multiple voice mail systems to enable Soft Keys. A similar set up can be used for enabling other voice mail features.

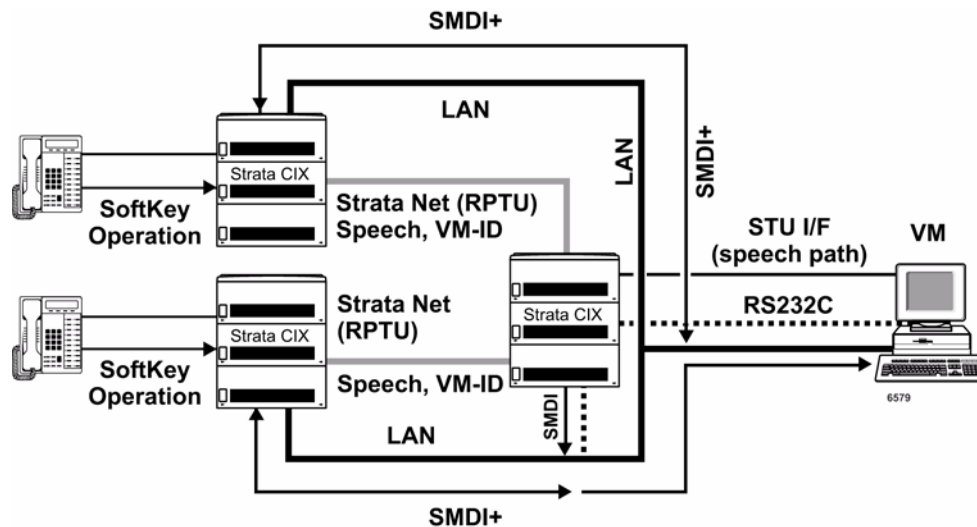


Figure A-1 Voice Mail Networking

Call Record and Soft Keys

A station can record conversations with another station or external line in a specific mailbox in voice mail (VM) using the Record function button. You can replay the recorded conversation using the message waiting button or using the voice mail menu.

Networking for Call Record and Soft Keys is available only with Stragy ES/IES R4 or higher.

Step 1: Set up Station Message Desk Interface (SMDI) for Local and Remote CIX

1. Select System > I/O Device, IO Logical Device tab.
2. Enter/Select the following:
 - field 00 Logical Device No. = select 300 SMDI #0.
 - field 01 Device Connection = LAN.
 - Port Index No. = 1~9.
3. Click LAN Device tab -Program 801 - enter the LAN data:
 - field 00 LAN Port Index No. = 1~9
 - field 01 Protocol = TCP
 - field 02 Application Type = Client
 - field 03 Data Flow = Asynchronization
 - field 04 Server Port No. = 0 (default)

- field 05 Client IP 1-4 No. = 192.168.254.250
 - field 06 Client Port No. = 5000
 - field 07 Read Retry No. = 1
 - field 08 Write Retry No. = 1.
 - field 09 CallerName Set To CSTA = No
4. Click **Submit**.

Step 2: Set up Remote CIX

1. Select System > Voice Mail Port Data. Program 580 – VM Port Data displays.
2. Enter the appropriate fields.
3. Select Station > Station Assignments. Program 200 – Station Data screen displays.
4. Enter the Prime DN. For Call Record, enter the Node ID and Pilot number of the local CIX (where the voice mail is located).
5. In field 20 – VM MW Center Port. For Remote CIX systems, assign message center including Node IP for CIX Proprietary Integration integration. This parameter enables Call Record function too.

Note Refer to “Voice Mail Set Up” on [page A-1](#) for regular voice mail set up.

Step 3: Set up Strata Net Between All Nodes

Use the following programs to set up Strata Net:

1. “304, 305 Incoming Line Group” on [page 6-1](#).
2. “306, 307 Outgoing Line Groups” on [page 6-5](#).
3. “302, 303 Strata Net (PRI) and Strata Net IP (QSIG)” on [page 6-30](#)
4. “102 Flexible Access Codes” on [page 4-3](#)
5. “651 Private Routing Plan Analysis” on [page 9-34](#)
6. “653 Private Route Choice Table Assignment” on [page 9-35](#)
7. “654 Private Route Definition Table Assignment” on [page 9-35](#)
8. “655 Private Network Digit Modification Table Assignment” on [page 9-36](#)
9. “656 Node ID Assignment” on [page 9-33](#)

For all other voice mail set up steps refer to “Voice Mail Set Up” on [page A-1](#).

Strata CIX BRI Video Conferencing Programming

The table below shows the programs required to program a PRI line to ring to a RBSU interface to allow for Video Conferencing capabilities.

The following may differ in your system: card slot assignments, trunk groups, channel groups and BRI station numbers.

The following program changes are required once the system has been installed and initialized.

Programs	Description
Program 100	Card Assignment RPTU and RBSU S/T Interface with each two TIE's
Program 105	System Data Field 21=RPTU card slot
Program 304	Incoming Line Groups ILG=n, Field 01=ISDN, Field 02=CO, Field 03=DID, Field 04=Standard
Program 306	Outgoing Line Groups OLG=n, Field 01=ISDN, Field 02=CO/DID, Field 03=Standard
Program 309	Direct Inward Dialing ILG=n, Field 01=nxxx, Fields 05 through 10=Dialing Digits Type with Destination Digits
Program 302	PRI Trunks Channel Group=n, Field 01=Equip Nos, Field 02=Nat'l ISDN, Field 03=n, Field 04=n, Field 07=n, Field 08=Check, Field 09=Check, Field11=Check, Field12=Check, Field 19=Check
Program 320	"B" Channels Field 00=Equip Nos, Field 01 through 23=Check
Program 202	ISDN BRI Station Prime DN=nnnn, Field 01=Equip No., Field 02=n, Field 03=Nat'l ISDN, Field 04=Point to Multi-Point, Field 13=Check, Field 14=Check Note Field 02 must be a different channel group for each BRI station and cannot conflict with PRI channel group.

IP Telephone Quality of Service (QoS) Programming

Deploying many IP telephones on a data LAN can have some unexpected pitfalls if the network does not have the bandwidth and speed required to handle VoIP traffic. To prevent delay, jitter, and data loss for VoIP traffic and to retain the performance of your other business-critical network applications a network Voice Readiness Assessment should be completed before installing VoIP.

Important! Voice Readiness Assessments are the responsibility of the installing TSD dealer. Toshiba is not responsible for supporting problems which occur because the network on which the IP telephones are installed does not meet VoIP packet requirements.

CIX IP provides a number of adjustable tuning parameters dealing with sharing of network resources, collectively referred to as Quality of Service (QoS). Some CIX IP voice quality and packet priority parameters that can be adjusted are described below:

General QoS Adjustments

The CIX provides parameters that can be adjusted to improve IP voice quality. These are normally kept at default but may be adjusted as necessary to modify IP voice quality. Set each item individually and then test for voice quality improvements each time a parameter is changed.

1. In Network eManager, select IP-Telephony > IPT Data (Program 250), Field 08 Audio Codec, and select the codec that should be enabled for individual IP telephones.

The G711 provides the best voice quality but requires the most network bandwidth. Usually G.729A is used when IP telephones are connected remotely.

2. In Network eManager, select IP-Telephony > System IP Data (Program 150), Field 11 Gain Control of IPT and BIPU and select the desired setting.
3. You can assign a Voice Packet Table to individual IP telephones in IP Telephony > IPT Data (Program 250–Field 07) Voice Packet Table. In Network eManager, select IP Telephony > Voice Packet Configuration (Program 152) and configure up to 256 different tables (see below).

Voice Packet Configuration Table (Program 152)

Normally the default table settings are used. If experiencing voice quality problems, set each item individually and then test for voice quality improvements each time a parameter is changed. The default settings are shown below. The tables in this program must be assigned to individual IP telephones in IP-Telephony > IPT Data (Program 250) for them to be used by the CIX.

Important!

- When setting voice packet configuration tables on a Strata Net IP network the packet table settings for each node on an end-to-end connection must be the same.
- Whenever voice packet configuration table changes are made for IP telephones on Strata Net IP nodes Toshiba recommends pressing the **RESET** button on the BIPU to ensure the changes take effect.

Voice Packet Configuration Parameters defaults:

- field 01 - Voice Packet Transmission Interval – 20 msec
- field 02 - Jitter buffer type – adaptive
- field 03 - Jitter buffer length – 100 (smooth out packet playback)
- field 08 - Maximum acceptable delay – 20
- field 07 - Packet loss threshold – 5
- field 13 - Packet loss ratio – 5
- field 10 - Measurement period – 100

Priority Control Adjustments

This VoIP feature provides a framework in which voice traffic flowing on the network is prioritized over other types of traffic. CIX supports two industry standard types of Priority Control: IEEE802.1p and DiffServ (Differentiated Services). These options should be enabled simultaneously so the voice packets remain prioritized through the whole network path. IEEE802.1p prioritizes voice packets on the Ethernet (LAN) level and DiffServ prioritizes voice packets that pass through the internet, intranet, etc.

Important! Priority Control processing has two requirements for it to work accurately. All network Ethernet equipment connected to the BIPU LAN (routers, switches, etc.) must be in compliance with IEEE802.1p voice packet prioritization. When going through a network provider (ISP, etc.), the provider must support the DiffServ feature - contact your ISP for this service.

To setup priority control from Network eManager

1. Select IP-Telephony > System IP Data.
2. For Ethernet level (LAN) voice packet priority control:
 - Enable field 07 IEEE802.1p
 - Set field 08 IEEE802.1p. Configuration and set Voice or Best Effort - voice provides a higher level of priority.
3. For IP level (Internet) voice packet priority control enable field 03 DiffServ.
4. Set field 04 TOS Field Type (TOS -Type Of Service or DSCP - Differentiated Service code point)

Note The most common type used is TOS

- If set to "TOS"
 - Set field 05 "TOS Precedence type" (CRITIC/ESP ~ Routine) where CRITIC has the highest priority.
 - Set "TOS Delay type" (Normal or Low) – Low is the best service setting
 - Set "TOS Throughput" (Normal or High) – High is the best service setting
 - Set "TOS Reliability" (Normal or High) – High is the best service setting
- IF set to "DSCP"
 - Set field 06 DSCP from 1~64, Basic setting should be one of the following:
 - 0 = Best effort, The default setting for most IP traffic.
 - 24 = Assured flow (AF) or Controlled Load, intended to classify streaming traffic.
 - 40 = Expedited Flow (EF) or Guaranteed, intended to classify high priority traffic. Used by VoIP gateways to mark VoIP traffic.

Networking

Strata CIX enables networking of resources using Strata Net Private Networking. Read the following discussion through before programming Strata CIX networking features.

Strata Net Private Networking

The Strata CIX introduces robust private networking, Strata Net, to the Toshiba family of telecommunications products. Based on an international standard, QSIG, Strata Net will allow multiple Strata CIX systems to share voice mail systems and attendants, share features and a coordinated numbering plan and route calls simply and easily throughout the enterprise. Strata Net is distinguished from CIX Basic Networking which provides interconnection of nodes through conventional, E&M Tie lines.

QSIG

Toshiba has adopted QSIG as the basis for Strata Net. QSIG is an open, international standard for networking PBXs. It was begun in 1994 with a memo of understanding between twelve leading PBX manufacturers. The QSIG Handbook can be found on the web at <http://www.QSIG.ie/>. The standards were developed and are maintained by the European Computer Manufacturers Association (ECMA), an international, Europe-based industry association founded in 1961 and dedicated to the standardization of information and communication systems. ECMA may be found on the web at <http://www.ecma-international.org>.

QSIG is an intelligent and powerful signaling system, providing great flexibility in terms of network architecture. Any network node can establish routes to 128 other nodes and segmented networks can grow beyond that. New nodes can be added to the network as business needs dictate. The use of QSIG does not impose the use of a specific network topology and it can be used with any network configuration: meshed, star, main and satellite, etc.

Toshiba, like most of its competitors, has chosen to implement QSIG over Primary Rate Interface. Strata Net supports QSIG Basic Call Control that allows it to interoperate with other PBXs that conform to the QSIG standard.

Node ID

The basic logical element in Strata Net routing is the node ID. It functions similarly to the address in a packet data network. As a call is routed through the network, each node examines the leading received digits for a node ID defined in its flexible numbering plan. After first discerning a node ID, the Strata CIX then determines whether the node ID is for itself or for a remote node. If it is a remote node ID, the call goes through a routing process that selects an OLG, manipulates the digits and sends the call to the next node in the network. If the call contains the local node ID, the Strata CIX manipulates the number according to the overlap code and delivers the call to a local station, trunk or feature.

The node ID is one to six digits long. The Strata CIX knows that a node ID to which an overlap code has been assigned is for the local node and that all others are for the remote nodes.

Strata Net bases its routing decisions exclusively on the node ID and makes no attempt to analyze or restrict the remaining dialed digits. These remaining digits are not processed until delivered to the destination Strata Net node. This provides a simple, powerful tool because the programmer does not need to consider local conditions in transit nodes and does not need to fear interference with the call regardless of the path it takes through the network.

Network Directory Number

A Network Directory number consists of two elements: the node ID and the local directory number. A node ID is a string of 1 to 6 digits that identifies one node on the network. A network DN may be a simple concatenation of the two elements in which the complete node ID precedes the complete extension or the

two elements may overlap. In the event of an overlap, an overlap code identifies the digits to be substituted for the received node ID.

The node ID allows a call to route through multiple Strata Net nodes until its destination node recognizes it as a local call. Local node IDs are programmed using Prog 656 Node ID. Remote node IDs are programmed in Prog 651 Network Routing Plan Analysis to define the appropriate outgoing route to the desired destination. Digits received after the node ID are passed on to the distant node without analysis.

One node may have up to four node IDs. A unique overlap code is programmed for each node ID. The overlap code allows the programmer to control the number of digits to be dialed for network calls and to create a coordinated dialing scheme across the network. If the network DN is to be a simple concatenation with no overlap, the overlap code field is left blank. All node IDs, local and remote, must be defined as such in the flexible numbering plan.

The following are examples of linked and overlapped node IDs.

Linked:

- Node ID = 789
- Extension = 2345
- Overlap Code = BLANK
- Network DN = 7892345

Overlapped:

- Node ID = 789
- Network DN = 789345
- Overlap Code = 2
- Local Extension = 2345

This simple, powerful, logical tool will support large, complex networks. It is the means by which a coordinated numbering plan can be established across all Strata Net nodes including existing systems with established numbering plans.

Network Feature Access Code

The Network Feature Access Code is similar to the network DN but is used to access features in a remote Strata Net node. Features may include routing features, such as Trunk Group Access and Least Cost Routing, or user features such as Message Waiting and Paging.

The Network FAC format is:

Node ID (1~6 digits) + Local FAC (1~5 digits) + Parameters (unlimited).

For example, **789 9 16175551212** access' node ID 789 and uses that node's LCR (9) to dial directory assistance in Boston.

Given their variability, Network FACs are usually processed without overlap codes. If a node ID with an overlap code has been established for local extensions, it cannot be used for feature access; a separate node ID must be established. If no overlap codes are used, one node ID will serve for all purposes.

Digit Manipulation

Digit Manipulation is the term for the altering of an original string of dialed digits in order to re-route a call or connect it to a specific service. Digit Manipulation is usually applied to the leading digits in the string which appear left-most in written form. Strata Net uses two forms of manipulation: overlap codes, described above for inbound calls, and network digit modification tables for outbound calls. The network digit modification tables contain up to 64 treatments in each of which as many as 10 leading digits may be deleted and as many as 23 leading digits substituted. These 64 treatments may be applied to any of 64 route definitions.

Traveling Class Mark

Calling privileges, restrictions and priorities may be imposed across Strata Net using the Traveling Class Mark. The Traveling Class Mark accompanies all calls across the network. When the call reaches its terminating node, that node uses the Traveling Class Mark to determine whether the originator of the call is entitled to the dialed facility. The mark is a single information element linked from the following:

- Network Class of Service
- Network DR Level
- Network Facility Restriction Level
- Network Queuing Priority Level

All nodes contain tables to translate between local and network DR Levels, Facility Restriction Levels and Queuing Priority Levels. DRL, FRL and QPL each require two tables: one to translate from the local level to the network level for outgoing calls and one to translate from network to local level for incoming calls.

Network Class of Service is an exception for two reasons. First, at the originating node, each station is assigned a Network Class of Service; there is no translation. The terminating node does contain a table to translate the received Network Class of Service to a local Class of Service but it adds parameters to the local Class of Service before determining how to process the call. Those parameters are:

- Permission for Off-Hook Call Announce
- Ability to register System Speed Dial numbers in the terminating node
- Ability to register Class of Service Override in the terminating node and
- Trunk Group Override Access

Time of day considerations are handled at the originating node. If a call originates in a node that is in night mode and terminates in another node, it will deliver the night mode values regardless of the condition of the terminating node.

Path Replacement

Known also as Route Optimization and Release Link, Path Replacement makes the most efficient use of talk paths between network nodes. For example, if a series of transfers around the network results in a conversation between two stations in the same node, all of the tie line circuits are released and a simple station-to-station call is established in the one node. This efficiency reduces the number of facilities to be provided and improves transmission quality by minimizing the number of links over which loss could occur.

Path Replacement applies to:

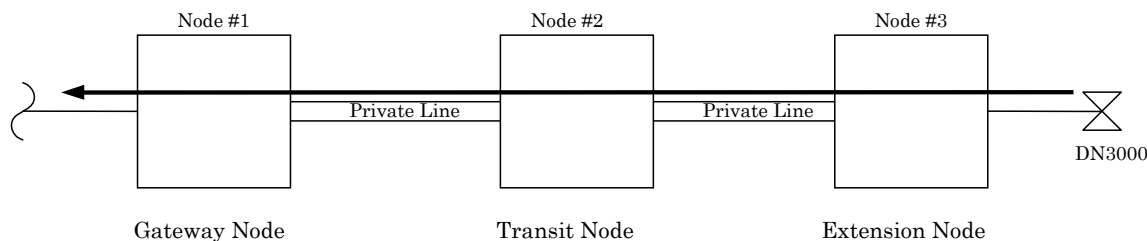
- Call Transfer
- Ring Transfer
- Station Call Forward
- System Call Forward

Coordinated Numbering Plan

A Coordinated Numbering Plan rationalizes the dialing patterns required of network users and relieves them of the need to know complicated access codes to navigate the network. The basic mechanism is the Network Directory Number described above. The combination of node ID and Directory Number appear to the user as simple extension dialing. The ability to overlap the two components reduces the number of dialed digits. If it is necessary to preserve legacy extension ranges at individual nodes, a Network Access Code can be used to resolve numbering conflicts with other nodes.

Station Message Detail Recording (SMDR)

Strata Net generates call records for incoming or outgoing calls from the nodes in which they originated or terminated. For example, if a station user in node 3 makes an outside call that is routed through transit node 2 to gateway node 1 for connection to the public network, nodes 1 and 3 generate SMDR records; node 2 does not.



The record in node #3 will include the Network DN of the calling station, the dialed digits and the OLG number and Channel Group number used to access node #2. The record in node #1 will include the ILG number and Channel Group number of the Strata Net trunk on which the call was received and the PSTN trunk to which it was connected. The record format and conditions are the same as for a single node system using the new format adopted for Strata CIX.

Station-to-station calls across Strata Net are considered internal calls and do not generate SMDR records in any nodes. Abandoned Call SMDR records are only generated for incoming calls over local trunks.

Unforced account codes are generated from the node in which they originated. Forced account codes are included in the records of the node that required them. Similarly, the node which provides DISA services is responsible for checking the DISA Security code and for generating the SMDR record. The remote node and the transit node will not generate the SMDR record.

Plowable buffers are usually attached to each network node and polled by a central call accounting system. If the buffer is not available, the Strata CIX will buffer records as shown in the table below. Equipment numbers, time stamps and call type designations assist the call accounting system in associating records for the same call from different nodes.

Table A-1 SMDR Record Buffer Capacity

System Type	Buffer Capacity
CIX1200 (HCTU)	Up to 600 records
CIX1200 (HEXAU)	Up to 2000 records
CIX1200 (HEXBU)	Up to 3000 records
CIX670 (BCTU/BEXU)	Up to 1000 records
CIX670 (BCTU)	Up to 300 records
CIX200	Up to 300 records
CIX100	Up to 100 records
CIX40	Up to 200 records
CIX28	Up to 200 records

Centralized Voice Mail

Users in multiple network nodes may use the services of a single voice mail system attached to one node. The network transmits the voice mail ID (VMID) for remote stations and the calling conditions under which the call is being directed to voice mail (Call Forward All Calls, Busy, etc.). The centralized voice mail system can control message waiting indications and provide automated attendant services throughout the network through its integration with a single node.

Centralized voice mail requires a Coordinated Numbering Plan throughout the network for proper operation. The Coordinated Numbering Plan allows the voice mail to interact with the entire network as if it were on a large PBX. Basic operations include:

- Forward to Voice Mail – A forwarded, busy or unanswered extension may forward across the network to the voice mail unit. Centralized voice mail notifies the voice mail of the source and calling conditions and the voice mail returns the greeting of the original target extension. Notification of calling conditions requires SMDI integration.
- Message Retrieval – A user can press the message button on his phone and be directed to a voice mail system connected to his own or a remote node. The call will be correctly identified as a retrieval for the correct VMID and the user will be prompted for his security code. The same operation may be programmed for PhDNs in Station Programming.
- Message Waiting – The voice mail system can control message waiting indications in distant switches by accessing the remote node via node ID, registering the Message Waiting Feature Access Code and specifying the desired station.
- Automated Attendant – Automated attendant calls to voice mail may be transferred to stations or services in distant nodes using the Network Directory Number. If the automated attendant transfers the call to a busy destination, it can activate Call Transfer with camp-on across the network simply by hanging up.

Not all Strategy features available to a single switch are available to remote Strata Net nodes. This is a result of the local node being directly integrated to the voice mail system. The following table shows the availability of voice mail features across the Strata Net.

Strategy Feature	Attached Node	Remote Node
Message Lamp Control	X	X
Forward to Voice Mail	X	X
Message Retrieval	X	X
Automated Attendant	X	X
Call Record	X	X
Soft Keys	X	X (R1.3 and higher)
Transfer Direct to Voice Mail	X	X (R1.3 and higher)

Networking Multiple Voice Mail Systems – Refer to [“Networking Multiple Voice Mail Systems”](#) on [page A-3](#).

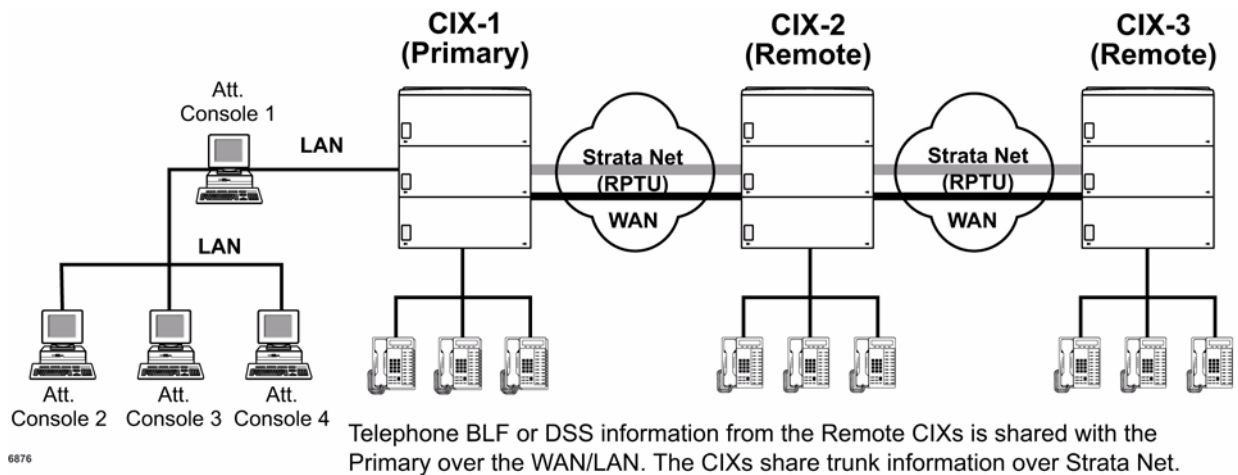
Centralized Attendant

It is possible for one attendant to serve an entire Strata Net. Station users anywhere in the network can simply dial **0** to reach the centralized attendant. Calls to the attendant are identified with calling number and name. Incoming trunk calls to any node in the network can be routed to one attendant and then extended anywhere in the network.

Network Busy Lamp Field (BLF)

Network BLF is an indication on the CIX attendant console and digital telephones that an extension is Busy, Idle or in DND over different nodes. The Primary CIX can read the BLF information from the remote CIXs.

In order to use Network BLF, the CIX attendant console and digital telephones must have access to each CIX by LAN/WAN and requires the IP addresses of each node or CIX. The figure below is a BLF/DSS networking flow diagram. It shows you the types of connections required between the BLF servers, the Strata CIXs and the CIX attendant console.



Telephone BLF or DSS information from the Remote CIXs is shared with the Primary over the WAN/LAN. The CIXs share trunk information over Strata Net.

Figure A-2 BLF/DSS Networking

Note The Node ID must be independent of the Station DNs for Network BLF to work.

Attendant Console BLF

Follow these steps to program Network BLF as shown in [Figure 3](#):

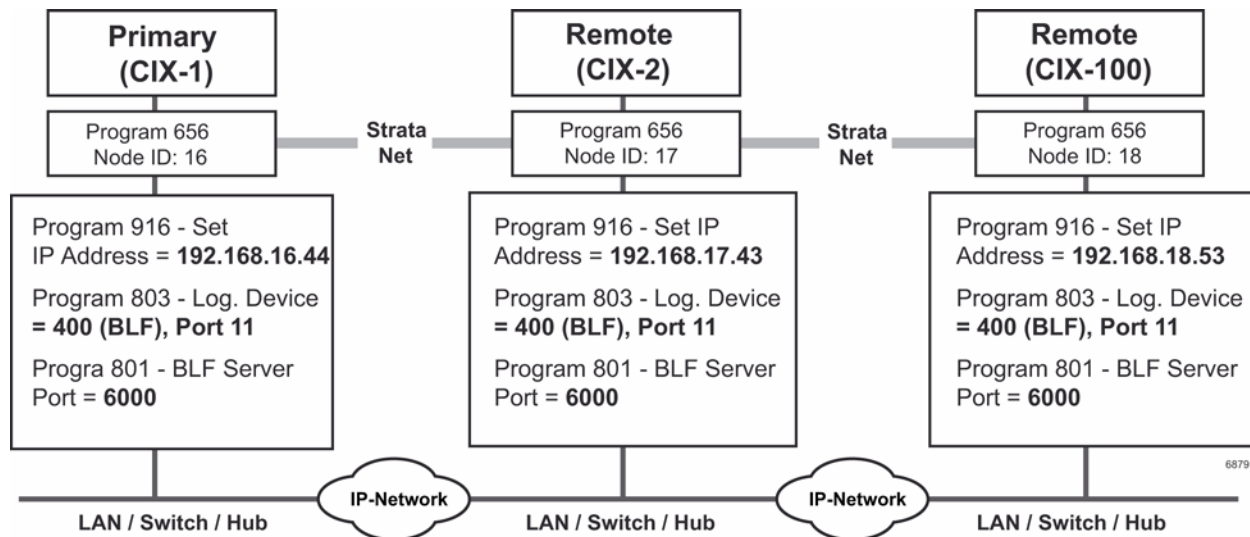


Figure A-3 Network BLF Example

Important! See steps for programming Network BLF from Strata eManager and CIX attendant console on the following pages.

Step 1: Program Network BLF from Network eManager for CIX Attendant Console

Perform the all of the following steps on the local CIX first, then repeat them on each of the remote CIXs.

1. Create the Node ID in ["102 Flexible Access Codes"](#) on [page 4-3](#).

Note If you have already created the node ID using Strata Net, skip Step 1 and go to the next step.

2. Set up the IP address of the primary CIX using Program ["916 IP Configuration"](#) on [page 10-10](#).
3. In Network eManager, select Strata Net > Node ID to set the primary node ID. Refer to ["656 Node ID Assignment"](#) on [page 9-33](#).
4. Select System > I/O Device. Refer to Program ["803 Application Port Assignments"](#) on [page 4-36](#).
 - field 00 Logical Device No. = 400 (BLF)
 - field 01 Device Connection = LAN
 - Port Index No. = 11
5. Define the LAN Device port number (11 in the example above). Select System > I/O Device and select the LAN Device tab. Refer to ["801 Network Jack LAN Device Assignment"](#) on [page 4-39](#). Make the following selections:
 - 00 LAN Port No. = 11
 - 01 Protocol = TCP
 - 02 Application Type = Server
 - 03 Data Flow = Asynchronization
 - 04 Server Port No. = 6000
 - 05 Client IP 1-4 No. = Default
 - 06 Client Port No. = Default

- 07 Read Retry No. = 1
- 08 Write Retry No. = 1
- 09 CallerName Set To CSTA = No

Step 2: From CIX Attendant Console Set up BLF Network

Important! Complete Step 1: “Program Network BLF from Network eManager for CIX Attendant Console” on page A-14 before you begin the following steps.

1. Click Administration view.
2. Select the BLF Network Control tab.
3. Enter the IP addresses of primary and remote CIXs.
4. Enter the Port Number (6000).
5. In the Name field, enter the Node Identified. For example, names such as Dallas, Chicago, etc., depending on where the remote CIXs are located.
6. Enter the Refresh rate. This is the frequency that the software will poll the remote site.
7. Click **Add**.
8. Enter the data for the other nodes, then click **OK**.

Notes

- When you make the directory in the CIX attendant console and when entering user information, add the node ID as prefix to the extension.
- When you start the CIX attendant console for the first time, a dialog box appears that requires the IP addresses and port numbers of each CIX.

Network DSS/BLF for Digital Telephones

Follow these steps to program Network BLF/DSS as shown in Figure 4:

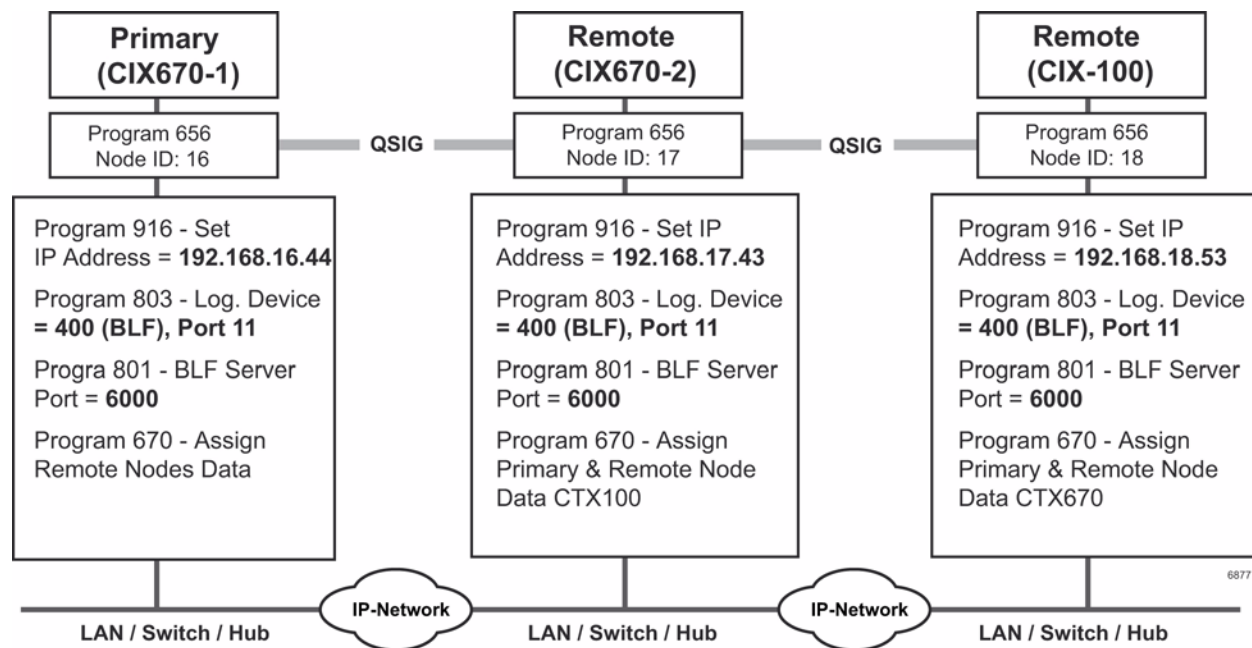


Figure A-4 Network BLF Example

Important! See steps for programming Network BLF from Strata eManager on the following pages.

Programming Network BLF from Network eManager for Digital Telephones

Perform all of the following steps on the local CIX first, then repeat them on each of the remote CIXs.

1. Create the Node ID in [“102 Flexible Access Codes”](#) on [page 4-3](#).

Note If you have already created the Node ID using Strata Net, skip Step 1 and go to the next step.

2. Set up the IP address of the primary CIX using Program [“916 IP Configuration”](#) on [page 10-10](#).
3. In Network eManager, select Strata Net > Node ID to set the Primary Node ID. Refer to [“656 Node ID Assignment”](#) on [page 9-33](#).
4. In Network eManager, select System > I/O Device. Refer to Program [“803 Application Port Assignments”](#) on [page 4-36](#).
 - 00 Logical Device No. = 400 (BLF)
 - 01 Device Connection = LAN
 - 02 Device Port No. = 11
5. Define the LAN Device port number (11 in the example above). Select System > I/O Device, select the LAN Device tab. Refer to [“801 Network Jack LAN Device Assignment”](#) on [page 4-39](#). Make the following selections:
 - 00 LAN Port No. = 11
 - 01 Protocol = TCP
 - 02 Application Type = Server
 - 03 Data Flow = Asynchronization
 - 04 Server Port No. = 6000
 - 05 Client IP 1-4 No. = Default
 - 06 Client Port No. = Default
 - 07 Read Retry No. = 1
 - 08 Write Retry No. = 1
 - 09 CallerName Set to CSTA = No
6. Verify the DSS refresh time in System > System Timer, field 23 – Network DSS Refresh Timer. Refer to [“104 System Timer”](#) on [page 4-12](#).
7. From each remote CIX, repeat steps 1~6 to set up Network BLF.

Network DSS

When you set up Network DSS, you assign the DSS numbers in the primary CIX first. Then, once you network the remote CIXs, they will use the DSS numbers set in the primary CIX.

An example of how to set up Network DSS is shown in [Figure 5](#). In this example, if CIX670-1 is the primary/host site, then CIX670-2 and CIX100 become remote sites.

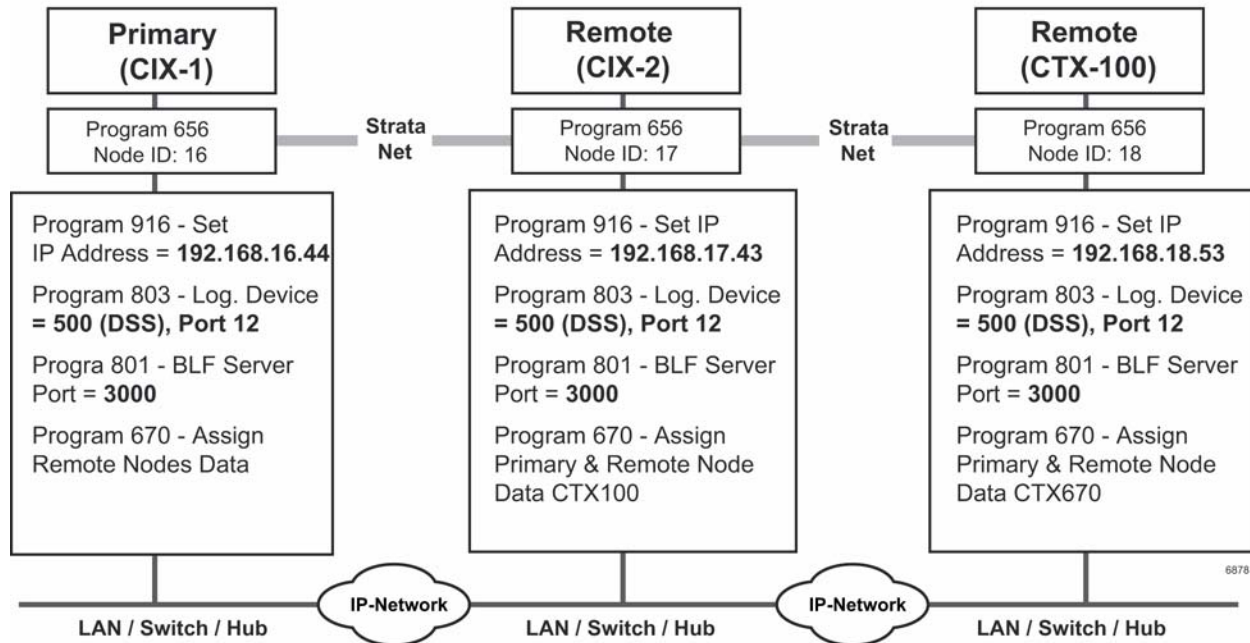


Figure A-5 Network DSS Example

Program Network DSS from Network eManager

1. Create the Node ID in [“102 Flexible Access Codes”](#) on [page 4-3](#).

Note If you have already created the Node ID using Strata Net, skip Step 1 and go to the next step.

2. Set up the IP address of the primary CIX using Program [“916 IP Configuration”](#) on [page 10-10](#).
3. In Network eManager, select Strata Net > Node ID to set the Primary Node ID. Refer to [“656 Node ID Assignment”](#) on [page 9-33](#).
4. Program the CTI Port for Network DSS. From the Program menu, select System > I/O Device. Refer to [“803 Application Port Assignments”](#) on [page 4-36](#).
 - 00 Logical Device No. = 500 (DSS)
 - 01 Device Connection = LAN
 - Port Index No. = 12
5. Define the LAN Device port number (12 in the example above). Select System > I/O Device, select the LAN Device tab. Refer to [“801 Network Jack LAN Device Assignment”](#) on [page 4-39](#). Make the following selections:
 - 00 LAN Port Index No. = 12
 - 01 Protocol = UDP
 - 02 Application Type = Server

Applications Guide

Network Busy Lamp Field (BLF)

- 03 Data Flow = Asynchronization
 - 04 Server Port No. = 3000
 - 05 Client IP 1-4 No. = Default
 - 06 Client Port No. = Default
 - 07 Read Retry No. = 1
 - 08 Write Retry No. = 1
 - 09 CallerName Set To CSTA = No
6. Make sure the Remote Node IP address and Network DSS port Number are consistent. Select Strata Net > Remote Node IPU Address (Program 674).
 7. In Program 670, enter the parameters as follows:
 - field 00 - Remote Node ID = 17. (This is a Strata Net Node ID. In the example above these Node IDs are 16, 17 and 18.
 - field 01 - Remote Node IP Address = IP address of the remote CIX. Using Node 17 in this example, the IP address is 192.168.1.43.
 - field 02 - Remote Node Port No. = 3000. This port number is the Network DSS port number. The Network DSS port number can be any available port. All Network DSS ports should also be the same, i.e; 3000 in the above example.
 8. Verify the DSS refresh time in System > System Timer, field 23 – Network DSS Refresh Timer. Refer to [“104 System Timer”](#) on [page 4-12](#).
 9. Assign the DSS Remote Node feature key using Station > Station Assignments. Refer to [“205 / 213 / 215 Key”](#) on [page 5-20](#). DSS button can have up to seven digits, so Node ID can be included. Before R1.3 five digits were the maximum allowed in a DSS button.
 10. From each remote CIX, repeat steps 1~9 to set up Network DSS.

Network Feature Content

The following is a list of Strata CIX features that operate across multi-node Strata Net connections.

- Account Codes Forced/Voluntary/Verified*
- Automatic Busy Redial*
- Automatic Camp-on
- Automatic Release of CO
- Call Forward
- Call Park Orbits Park and Page
- Call Transfer
- Call Transfer With Camp-on*
- Call Waiting
- Caller Identification
- Class Of Service
- Conference On Hold
- Conferencing
- Consultation Hold Manual
- Credit Card Calling*
- Day/Night Modes*
- Dial For Quick Launch
- Dialed Number Identification Service
- Digital PAD
- Direct Inward Dialing
- Direct Inward System Access
- Direct Inward Termination
- Directory Number Presentation
- DISA Security Code Revision*
- Do Not Disturb *
- Do Not Disturb Override*
- Door Lock Control
- E911
- Executive Override*
- External Ring Repeat
- Flexible Numbering
- Intercept
- Least Cost Routing *
- Message Waiting
- Offhook Camp-on*
- Outgoing Call
- Recall Treatment
- Speed Dial System/Station
- Station CO Line Access
- Station To Station Connection
- System Call Forward
- Tandem CO Line Connection
- DR
- Toll Restriction Override by System Speed Dial
- Traveling Class Of Service
- Trunk Access*
- Trunk Group Access*

* Features that can be limited by Network Class of Service.

Strata Net Configuration

RPTU2 PCB

The Strata CIX uses a new Primary Rate Interface PCB that can terminate either a Strata Net connection or a public PRI: the RPTU-2A. The RPTU-2A is backwardly compatible with the RPTU-1A for standard ISDN operation. The mode of operation (standard or Strata Net) is controlled by a programming parameter named "Private Service Type." This parameter must be chosen in establishing both incoming and OLGs.

Circuits

Two Strata Net nodes are connected to each other by a full or fractional DS1. The Strata Net basic call convention will select one DS0 to act as the "D" channel and the remainder as "B" channels. This allows the interconnecting DS1(T-1) to act as a Primary Rate Interface. The appropriate command set is in new firmware on the card to allow Strata CIX for signal according to CPE-to-CPE rules which differ from CPE-to-PSTN rules. Fractional DS1s may consist of 8, 12 or 16 channels including the "D" channel.

The most common type of interconnection is a leased DS-1 from a Common Carrier such as the primary telephone company or long distance provider. DS1s may also be created across fiber optics, Frame Relay equipment, IP networks or other transport media using dealer-supplied equipment as long as they conform to the following specifications.

- 1.544 MBPS
- B8ZS
- ESF

Nodes may also be connected directly over two copper pairs to a maximum distance of 738 feet. See the Strata CIX Installation and Maintenance Manual for pin configurations and other details.

Strata Net Programming Overview

Follow the sequences below to program Strata Net.

Step 1: Basic Incoming Network Calls

1. Establish the Node ID as part of the Flexible Numbering Plan (Program 102).

Note Node ID is located under 01 Feature Name as Node ID (CIX network number prefix).

2. Establish up to four Local Node IDs (Program 656) for the primary node. Each Node ID can have a unique Overlap Code.
3. Process the digit string as manipulated by the Overlap Code from Flexible Numbering Plan. The resulting number can be an extension call, feature activation, or tandem call.

Step 2: Basic Outgoing Network Calls

1. Establish the Node ID as part of 102 Flexible Numbering Plan.
2. Use Program 651 Routing Plan Analysis Table Assignment to associate each Remote Node ID with a Private Route Choice table which will provide up to six routing choices to the desired node.
3. Use Program 653 to define a Private Route Choice table. The table should contain up to six Route Definitions. The system steps through these Route Definitions in terminating hunt fashion to find a route to the desired private networking node.
4. Use Program 654 to define a Private Route Definition consisting of an OLG and a pointer into the Private Digit Modification table.
5. Use Program 655 to set up Private Digit Modification tables containing up to 64 entries. Each entry specifies the number of leading digits to be deleted from the dialed number and the dial string to be added as leading digits.

Strata Net over IP Programming Guidelines

Use the following steps/programs to program Strata Net over IP.

1. Assign the xIPU card using Program 100 (System > Card Assignment).
2. Use Program 161 for the LIPU and MIPU/GIPU. Use Program 151 to set up the BIPU.
3. Program ILG using Programs 304 (Trunk > ILG, 01=ISDN, 02=TIE, 03=DIT, 04=Q-SIG).
4. Program OLG using Program 306 (Trunk > OLG, 01=ISDN, 02=TIE/E&M, 03=Q-SIG).
5. Program the Channel group using Program 302 (Trunk > ISDN PRI (IP Protocol)).
6. Assign network IDs for all nodes using Program 102 (System > Flexible Access Code).
7. Program networking using Programs 651~656.
8. Setup Strata Net over IP routing using Programs 671 and 672 (Strata Net > Network Over IP). See example below.
9. Use Program 320 (Trunk > PRI B Channels) to control the number of channels to be used. This may be necessary to limit the number of simultaneous calls allowed over the IP network. The IP network bandwidth determines how many simultaneous calls can be supported. As a general guideline one Strata Net over IP call requires a minimum of 36 kbps bandwidth.

Important! The BIPU IP address must be set in Program 151. The MIPU/GIPU/LIPU IP address must be set in Program 161. If the MIPU/GIPU/LIPU or BIPU-Q1A has a private IP address, Strata Net IP communication must be over a Virtual Private Network (VPN) connection. To avoid needing VPN for this IP connection, assign a Global IP address to the MIPU/GIPU/LIPU/BIPU-Q1A interface.

10. If voice quality is low on Strata Net over IP calls, change defaults in Program 152 for fields 01~04.
11. After assigning an IP channel group in Program 302, assign the PAD levels to the PAD Groups 1 or 2 in Program 107 (System > PAD Table) using the “PAD Values” on [page 4-28](#).
12. After assigning the PAD level to the PAD Table in Program 107, assign the IP channel group to the PAD group in Program 108 (System > PAD Table). Use ISDN trunk as the device type for IP Channel Group Assignments.

Important! These PAD values in steps 11 and 12 must be set properly to avoid low volume levels.

Important! Stations in different nodes that will maintain tandem connections must have tandem connection enabled in their class of service.

Example

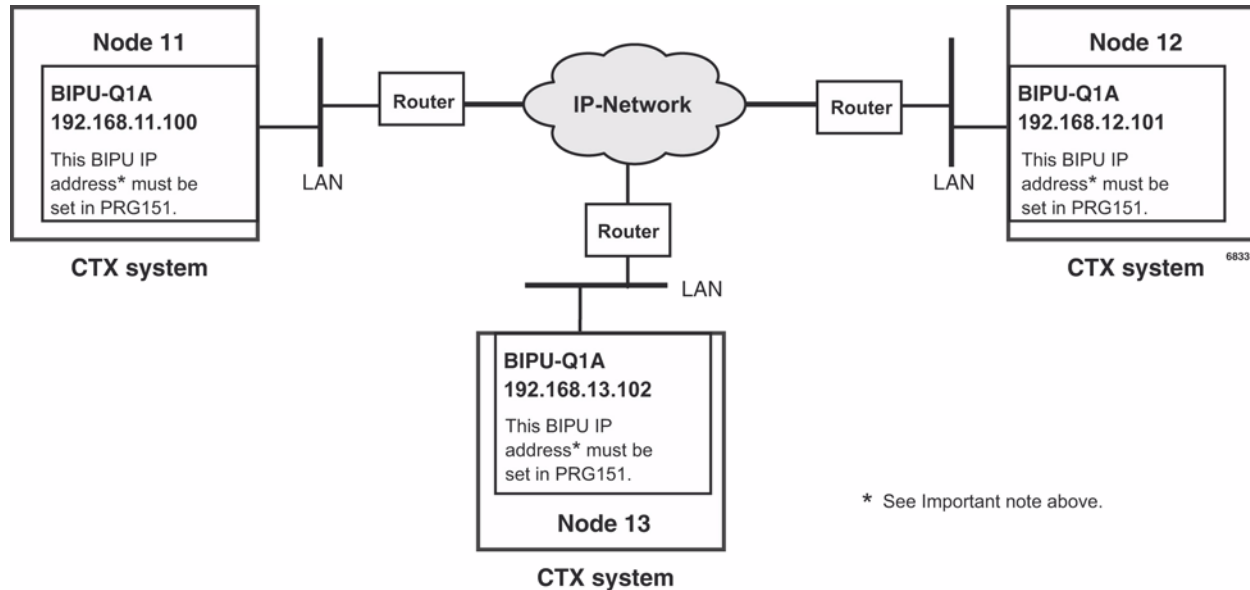


Figure A-6 Strata Net over IP Routing

To program the configuration in the above figure using programs 671 and 672

The steps below show you how to setup Node 11 to route to remote Nodes 12 and 13.

1. With Network eManager connected to Node 11, go to Program 672 (Strata Net > Network Over IP, Detail Info tab).
2. Create Node 12 and verify all parameters are set to defaults.
3. Create Node 13 and verify all parameters are set to defaults.
4. With Network eManager connected to Node 11, go to Program 671 (Strata Net > Network Over IP, IP Route tab). The IP addresses of BIPU-Qs connected to Node 11 are set in this program.
5. Select Node 12 and enter its BIPU-Q IP address (192.168.12.101) into IP Address Route 1.
6. Select Node 13 and enter its BIPU-Q IP address (192.168.13.102) into IP Address Route 2.

Notes

- The IP addresses used in this example are only examples, check with the facility network administrator for the IP addresses that should be used in your installation.
 - If a remote node has more than one BIPU-Q installed, its IP address would be entered in Route 2. A maximum of six remote BIPU-Qs can be assigned in each remote node. Route 1 will be used until all channels are busy, or not working, in which case Routes 2~6 will be used sequentially.
7. Repeat Steps 1~6 with Network eManager connected to Node 12 to set up Remote Nodes 11 and 13.
 8. Repeat Steps 1~6 with Network eManager connected to Node 13 to set up Remote Nodes 11 and 12.

The following ports must be enabled on all routers that pass StrataNet packets.

Function	Protocol Name	Ports	Type
Connection Request	StrataNet	4029	TCP
Call Control Channel	StrataNet	4096 - 8191	TCP
Media Channel	RTP, RTCP	16384 - 24575	UDP

IP StrataNet Node Setup

The following outlines the program steps to setup the CIX as a node in an IP StrataNet network.

Program 100 **System > Card Assignment** — Assign the L/M/G-IPU card.

Program 161 **IP-Telephony > L/M/G IPU Configuration** — Assign the MIPU/GIPU/LIPU IP Address, subnet mask and gateway.

Cabinet/Slot	Select the MIPU/GIPU/LIPU card from the list
field 01	Enter the MIPU/GIPU/LIPU IP Address
field 02	Enter the MIPU/GIPU/LIPU Subnet Address
field 03	Enter the MIPU/GIPU/LIPU Default Gateway Address

Program 304 **Trunk > ILG** — Program a new Incoming Trunk Group.

field 00	Create ILG (use any available ILG number)
field 01	Group Type = ISDN
field 02	Trunk Type = TIE
field 04	Private Service Type = QSIG

Program 306 **Trunk > OLG** — Program a new Outgoing Trunk Group.

field 00	Create OLG (use any available OLG number)
field 01	Group Type = ISDN
field 02	Trunk Type = TIE
field 03	Private Service Type = QSIG

Program 325 **Trunk > Full IP Strata Net** — Program an Strata Net IP span.

field 00	Create Channel Group
field 01	Equipment Number - Cabinet / Slot location of the xIPU
field 02	LAN Interface Number = 1 for L/M/G-IPU, 2 for LIPS
field 03	Select the number of channels to use
field 04	ILG - Enter the ILG create above
field 05	OLG - Enter the OLG create above
field 06	Bearer Service = Speech
field 07	Bearer Service 3.1 KHz = Audio
field 08	RBT on Incoming Call - Enable
field 09	Q931 Protocol Timer - Normal

Program 107 **System > PAD Table** — Assign PAD levels to PAD group 1.

Program 108 **System > PAD Table** — Assign IP channel group to PAD group.

Program 102 **System > Flexible Access Codes** — Program new Node ID Code.

field 00	Create new Feature code for ALL Node IDs
field 01	Select Node ID = Network Access Code for the Remote Node

Program 656 **Strata Net > Node ID** — Assign local network node ID.

field 00	Primary Node ID = Local Node ID
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Program 655 **Strata Net > Route Choice > Private Network Digit Modification Table Assignment** — Assign digit modification to table.

Use the default assignment - Table 1 is no digit modification	
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Program 654 **Strata Net > Route Choice > Private Network Route Definition Table Assignment**

field 00	Private Network Route Definition
field 01	Outgoing Line Group
field 02	Digit Modification Table

Program 653 **Strata Net > Route Choice > Private Network Route Choice Table Assignment**

field 00	Private Network Route Choice Table Number
field 01~06	Route Definition Table

Program 651 **Strata Net > Route Plan Analysis**

field 00	Node ID = All remote node IDs
field 01	Private Route Choice Table Number

Program 672 **Strata Net > Network Over IP > Detail Info Tab** - Assign Prvt Network Node ID Assignments

field 01	IP Protocol Type = IPQSIG
field 02	Voice Packet Table
field 03	TCP Connection Release
field 04	H.323 Fast Connection
field 05	Channel Negotiation
field 06	Audio Codec
field 07	DTMF Translation
field 08	E911 Priority

Program 671 **Strata Net > Network Over IP > IP Route** - IP Address Convert Table Assignments

Node ID	Select Node ID from list = All Remote Node IDs
field 01	IPU IP Addrs Rte 1 = IP addrs of local xIPU used for QSIG

IP Telephone, MIPU, GIPU, LIPU and BIPU Firmware Update Procedures

In this section, when a procedure applies only to the MIPU, GIPU, LIPU **or** BIPU the specific PCB will be referenced. When the procedure applies to the MIPU, GIPU, **and** LIPU the term MIPU/GIPU/LIPU will be used. When the procedure applies to all MIPU, GIPU, LIPU and BIPU the term xIPU will be used.

These procedures provide the steps for updating IP telephones and xIPU firmware. The procedures apply to IPT1020-SD, IPT2000-series, and IP5000-series telephones and MIPU, LIPU and BIPU-M interface PCBs.

Note The MIPU/GIPU card does not support IPT1000-series telephones.

Use Network eManager to perform updates. Before you start the update procedure, store the update files on a File Transfer Protocol (FTP) server. The FTP server can be:

- CIX Secure Digital (SD) or SmartMedia (SM) card
- Network eManager PC using Windows virtual FTP
- An external server (required if IP telephones are not in the same network domain (subnet) as the xIPU interface)

The methods below are written based on the Network eManager version available at the time of writing. To perform an update you can use one of the following methods:

CAUTION! Do not unplug the xIPU, press the xIPU reset button, or turn off the CIX power during the xIPU program update process. Any of these operations will damage the xIPU kernel software and require the xIPU software restoration process to enable the xIPU to function. Restoration can only be done at a Toshiba TSD repair facility.

CAUTION! Be sure that you are loading the update firmware to the correct device. Incorrect firmware can cause the device to be inoperable. For example, BIPU firmware loaded onto an MIPU, GIPU, or LIPU will cause the MIPU/GIPU/LIPU card to stop functioning. This caution also applies to IP telephones. For example, loading IPT2000 firmware to an IPT2008 will cause the IPT2008 to stop functioning. Restoration can only be done at a Toshiba TSD repair facility.

Download Firmware Update Files

Download the appropriate firmware update files from Toshiba FYI.

To download software for MIPU/GIPU/LIPU and IP telephones go to: **FYI > Software (Strata Sys) > CIX System Software**

1. Determine the type of firmware update from the choices displayed.
2. Select the firmware by clicking on the description, and follow the instructions.
3. Save the file (it will have a .zip extension) to a folder on your PC.

Note The firmware files should not be renamed. Use these files “as is” when updating firmware.

Copy the IP Update Files to Network eManager Folders

The downloaded files must be copied to the correct SM/SD Card folder in Network eManager. To locate the correct folder, you must know the MAC address of the CIX system you are upgrading.

To determine the MAC address

1. Connect to the CIX with Network eManager.
2. Select **Utilities > MAC Address**
3. The MAC address will be displayed. Write down this number.

To copy the Update file

1. Click “My Computer”
2. Select “Local Disk (C:)” or the drive that contains the Network eManager program.
3. Select **eManager > UserData > Administrator**
4. Select the folder named for the MAC address of the CIX system (the MAC address will be written without the “dot notation”).
5. Select **SM/SD_CARD > PROGRAM**
6. Copy the downloaded update files to this PROGRAM folder.

Copy the IP Update Files to the SM/SD Media Card

The firmware update files must be copied to the SM/SD media card in the CIX.

1. Use Network eManager and select **Maintenance > SM/SD Card**.
2. In the “Local Folder” section, use the drop down to select “PROGRAM”.
3. Highlight the file to move to the SM/SD card.
4. In the “CTX/CIX SM/SD Media Card Folder” section, use the drop down to select PROGRAM.
5. Click the **Upload** button to move the files from the “Local Folder” to the “CTX/CIX SM/SD Media Card Folder.”
6. Now the files will be accessible by Network eManager for updating devices.

Method 1: Update from CIX SM/SD Card

Prerequisites

1. Requires a Network eManager PC and CIX SM/SD card for xIPU and IP telephone program updates.
2. Do not connect the Network eManager PC directly to the Strata CIX processor network jack (see Figure B-1). All connections must be through the network.
3. The xIPU must have the same subnet address as the Strata CIX and Network eManager – both must be in the same domain.

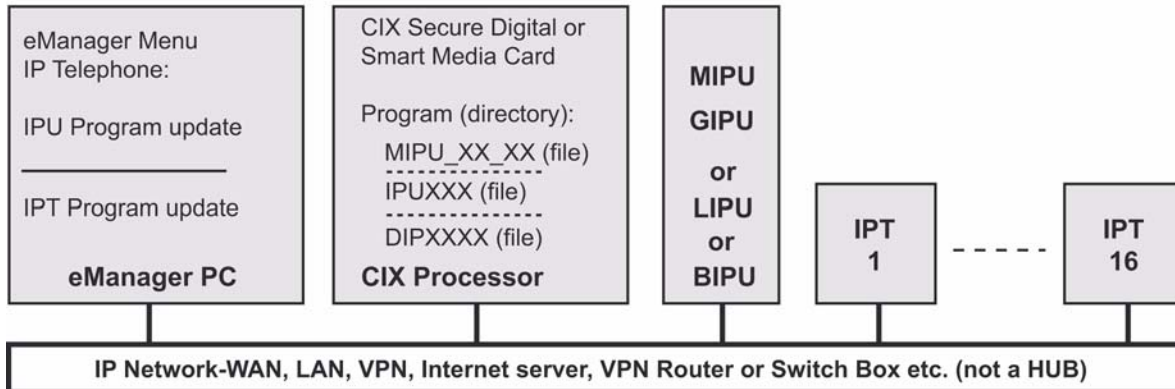


Figure B-1 FTP Server (SM/SD card) Network Connection

xIPU Update

CAUTION! Do not unplug the xIPU, press the xIPU reset button, or turn off the CIX power during the xIPU program update process. Any of these operations will damage the xIPU kernel software and require the xIPU software restoration process to enable the xIPU to function. Restoration can only be done at a Toshiba TSD repair facility.

Important! Complete all [Prerequisites](#) shown above before you do the following.

From the Network eManager PC connected to the CIX

Format the SM/SD

1. From the eManager PC select **Maintenance > SM/SD Card**
2. "Force format" a SM (SmartMedia) or SD (Secure Digital) card using Network eManager.
3. Copy the xIPUXXX update file to the SM/SD card PROGRAM file folder (XXX is the xIPU firmware version level).

Copy The Firmware to the Folder

4. Select **Maintenance > SM/SD Card** to Make sure the xIPUXXX file is stored on the SD/SM card under the PROGRAM directory.

Update the xIPU firmware, refer to the cautions on [Page B-1](#).

5. Select **Maintenance > IP Firmware Update > L/M/G/B IPU Update**
 - a. Select card type xIPU-X
 - b. Select Cab/Slot of xIPU-X
 - c. Select "SM/SD Media Card" as the FTP Server Information
 - d. The User Name, Password, IP Address, and Data Directory fields will automatically populate with the correct information.
 - e. Use the drop down on the File Name field and select the xIPXXX file.
 - f. Click the **Start** button
 - g. The xIPU will be automatically disabled.
 - h. When the update is completed successfully the xIPU will be reset.

Important! The xIPU must be installed in the system, configured, and connected to the network. The xIPUs and IP telephones will automatically be disabled while Update takes place and return to the idle state when Update is complete.

IP Telephone Update

Important! Complete all "Prerequisites" on [page B-3](#) before you do the following.

CAUTION! Be sure that you are loading the update firmware to the correct device. Incorrect firmware can cause the device to be inoperable. For example, BIPU firmware loaded onto an LIPU will cause the LIPU card to stop functioning. This caution also applies to IPTs. For example, loading IPT2000 firmware to an IPT2008 will cause the IPT2008 to stop functioning. Restoration can only be done at a Toshiba TSD repair facility.

From the Network eManager PC or External SM/SD read/write device

1. Store the update files on the SM/SD card.
2. "Force format" a SM/SD card using Network eManager.
3. Copy the IP5 or DIP update file under the SM/SD card PROGRAM folder.

From the Network eManager PC perform the update

1. Select **Maintenance > SM/SD Card**. Check that the IPd or DIP file is stored on the SM/SD card under the PROGRAM directory.

Important! The xIPUs and IP telephones will automatically be disabled while Update takes place and return to the idle state when Update is complete (if they were in the idle state when the Update was started).

2. Select **Maintenance > IP Firmware > IPT_L/M/G Update**. Select the IP telephone PDN to be updated. Refer to the Cautions on [Page B-1](#).
3. Select CIX Internal (SM/SD) radio button.
4. An ftp Name and Password is inserted automatically.
5. The IP address of the CIX processor (SM/SD card) is inserted automatically.
6. Data Directory box will be: PROGRAM
7. From File Name drop down box select: IP5 file or DIP file
8. Click **Start** and observe the update status: Getting Updated file\Updating\Finished Updating\Resetting\idle.

Notes

- It can take from 30 seconds up to two minutes to update the IP telephones.
- If an error occurs, recheck file names, locations, etc., then try again.

To check the IP telephone firmware version directly from an IP telephone

1. Simultaneously press **369Hold** buttons on the IP Telephone.
2. At the SELECT = prompt, press **1** then press **Hold**.
3. At the Select function key prompt, press **FB01**, the IP telephone will be displayed.

Note The Network eManager PC cannot be connected directly to the CIX processor network jack - all connections must be through the network.

Method 2: Update from an External FTP Server

Prerequisites

1. An FTP server must be connected on the same network domain as the IP telephones. The Network eManager PC, CIX processor and xIPU must be in the same domain but it does not have to be the domain that supports the IP telephones and FTP server.
2. The Network eManager PC cannot be connected directly to the CIX processor network jack. All connections must be through the network (see Figure 2 below).

CAUTION! Do not unplug the xIPU, press the xIPU reset button or turn off the CIX power during the xIPU program update process. Any of these operations will damage the xIPU kernel software and require the xIPU software restoration process to allow the xIPU to function.

CAUTION! Be sure that you are loading the update firmware to the correct device. Incorrect firmware can cause the device to be inoperable. For example, BIPU firmware loaded onto an LIPU will cause the LIPU card to stop functioning. This caution also applies to IPTs. Restoration can only be done at a Toshiba TSD repair facility.

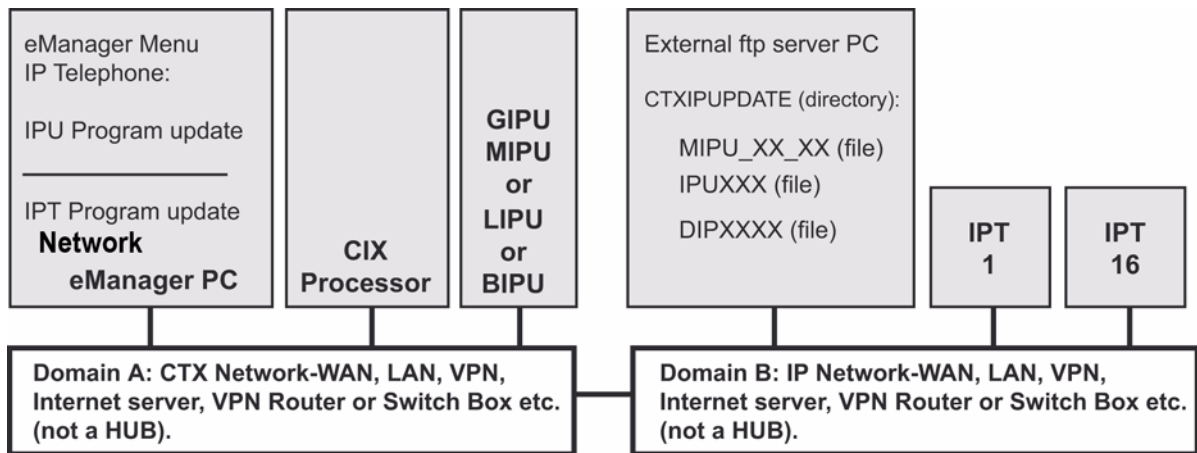


Figure B-2 FTP Server (External Server) Network Connection

Note The Network eManager PC cannot be connected directly to the CIX processor network jack - all connections must be through the network.

xIPU Update

Important! Complete all “Prerequisites” on [page B-6](#) before you do the following.

Store the IP update files on the external ftp sever

1. Create an ftp directory and name it CTXIPUPDATE.
2. Copy the xIPUXXX update files to CTXIPUPDATE directory (XXX is the xIPU firmware version level).

From the Network eManager PC perform the xIPU update

Important! The xIPUs and IP telephones will automatically be disabled while Update takes place and return to the idle state when Update is complete (if they were in the idle state when the Update was started).

1. Select **Maintenance > IP Firmware Update > IPT_L/M/G Update**.
2. Select the xIPU card slot (regarding BIPU - only BIPU-M can be updated. Only BIPU-M card slots will be shown with Network eManager. The BIPU type selection is not required).
3. Select **Other** (radio button).
4. Enter the ftp user login Name and Password.
5. Enter the IP address external ftp server.
6. From Data Directory box enter: CTXIPUPDATE.
7. From File Name box enter: xIPUXXX.
8. Click **Start** and observe the update status: Getting Updated file\Updating\Finished Updating\Resetting\idle.

Notes

- It can take one to five minutes to update the LIPU.
 - If an error occurs, recheck file names, locations, etc., then try again.
9. After the update is complete, select **IP-Telephony > BIPU Configuration** or **L/M/G IPU Configuration**. Check the xIUP version numbers to verify they have been updated properly.
 10. Press the xIPU reset button for proper initialization.

IP Telephone Update

Important! Complete all “Prerequisites” on [page B-6](#) before you do the following. Refer to the Cautions on [Page B-1](#).

Store the IP update files on the external ftp sever

1. Create an ftp directory and name it CTXIPUPDATE
2. Copy the IP5 or DIP update files to the CTXIPUPDATE directory (XXX is the IPT firmware version level).

From the Network eManager PC perform the update

Important! The xIPUs and IP telephones will automatically be disabled while Update takes place and return to the idle state when Update is complete (if they were in the idle state when the Update was started).

1. Select **Maintenance > IP Firmware Update > IPT_L/M/G Update**.
2. Select the IP PDN to be updated.
3. Enter the external server ftp user login Name and Password.
4. Enter the IP address external ftp server.

Software and Firmware Updates

IP Telephone, MIPU, GIPU, LIPU and BIPU Firmware Update Procedures

5. From Data Directory box enter: CTXIPUPDATE.
6. From File Name box enter the software update file name.
7. Click **Start** and observe the update status: Getting Updated file\Updating\Finished Updating\Resetting\idle.

Notes

- It can take one to five minutes to update the IPT.
- If an error occurs, recheck file names, locations, etc., then try again.

To check the IP telephone firmware version directly from an IP telephone

1. Simultaneously press the **369Hold** buttons on the IP Telephone.
2. At the SELECT = prompt, press **1** then press **Hold**
3. At the Select function key prompt, press **FB01**, the IP telephone will be displayed.
4. To exit this mode, go off and on hook.

Update From an FTP Directory on the Network eManager PC

Prerequisites

1. Install the "File Transfer Protocol (FTP) Service" component under "Internet Information Services" on the eManager PC. This is not installed by default when installing IIS in Windows XP or 2000. See ["To create a Virtual FTP directory on the Network eManager PC"](#) below.
2. Create an FTP virtual directory and path to C:\CTX\eManager\CTXIPUPDATE. The drive letter must be the drive on which Network eManager is installed. This can be done automatically by running the "CreateFTPVdir" executable file provided by Toshiba. See ["To create a Virtual FTP directory on the Network eManager PC"](#) below.

To create a Virtual FTP directory on the Network eManager PC

Setup the Virtual FTP server function on the Network eManager PC for IP Updates. These procedures were written using Microsoft Windows XP, there may be some variance when using Windows 2000.

1. Install the MS Windows component FTP on your PC.

Using the Windows XP or 2000 professional installation CR-ROM, install the FTP Service on the Network eManager PC. To verify FTP Service is installed, it should be located under: Control Panel > Administrative Tools > Internet Information Services (IIS).

2. Go to CTXIpScripts and run "CreateFTPdir." This creates a virtual directory.

To get the "CreateFTPVdir" file go to C:\ctx\eManager\CTXIpScripts.

Download the IP Firmware files and store them on the Network eManager PC

1. Download the appropriate firmware update files from TSD FYI, click Technical Services > Software (Strata Systems) > CTX IP Firmware.
2. Copy the firmware update files to the CTXIPUPDATE folder on the eManager PC (C:\ctx\eManager\CTXIPUPDATE\). These files will be accessed during the IP update processes.

Notes

- Make sure the Network eManager PC is not connected directly to the CIX processor network jack (see the figure below).

Make all connections through the network (see the figure below).

- Make sure the IP Telephones have the same subnet address as the CIX and Network eManager - both must be in the same domain.

CAUTION! Do not unplug the xIPU, press the xIPU reset button or turn off the CIX power during the xIPU program update process. Any of these operations will damage the xIPU kernel software and require the BIPU software restoration process to allow the xIPU to function.

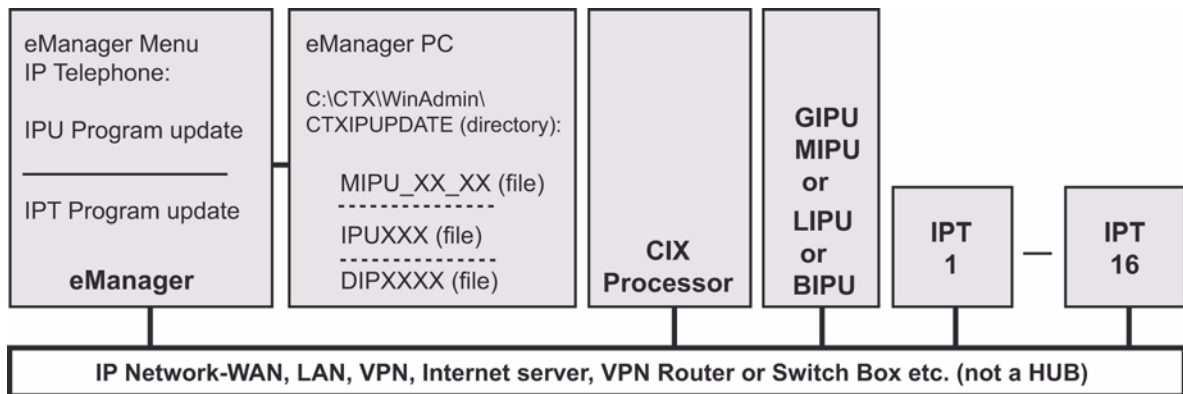


Figure B-3 FTP Server (Network eManager PC) Network Connection

Important! Complete all “Prerequisites” on page B-8 before you do the following. Refer to the cautions “Be sure that you are loading the update firmware to the correct device. Incorrect firmware can cause the device to be inoperable. For example, BIPU firmware loaded onto an MIPU, GIPU, or LIPU will cause the MIPU/GIPU/LIPU card to stop functioning. This caution also applies to IP telephones. For example, loading IPT2000 firmware to an IPT2008 will cause the IPT2008 to stop functioning. Restoration can only be done at a Toshiba TSD repair facility.” on page B-1.

Copy the xIPUXXX file into the Network eManager PC CTXIPUPDATE directory.

Notes

- The directory location should be C:\Ctx\WinAdmin\CTXIPUPDATE. The drive letter must be the drive on which Network eManager is installed.
- (XXX in the xIPU file name is the xIPU firmware version level).

From the Network eManager PC perform the xIPU update

Important! The xIPUs and IP telephones will automatically be disabled while Update takes place and return to the idle state when Update is complete (if they were in the idle state when the Update was started).

1. Select **Maintenance > IP Firmware Update > L/M/G/B IPU Update**.
2. Select the xIPU card slot(s).
3. Select Local eManager (radio button).
4. Enter the Windows User login Name and Password.

Note If in doubt, create a new Window logon User Name and password and use it in Step 5.

5. The IP address of the Network eManager PC is inserted automatically.
6. Select to update xIPUs one at a time or simultaneously.
7. Data Directory will be: CIXIPUPDATE. From File Name drop down box select: xIPUXXX

IPT20X0 and IPT2008 Update

Important! Complete all “Prerequisites” on [page B-1](#) before you do the following.

From the Network eManager PC

Copy the DIPXXXX update file to the SM/SD card PROGRAM folder (XXXX is the IP Telephone firmware version level).

From the Network eManager PC perform the update

Important! The MIPU/GIPU/LIPUs and IP telephones will automatically be disabled while Update takes place and return to the idle state when Update is completed.

1. Select **Maintenance > SM/SD Card**. Verify that the DIPXXXX file is stored on the SM card under the PROGRAM directory.
2. Select **Maintenance > IP Firmware Update > IPT_L/M/G Update**
3. Select Cab / Slot of the LIPU that controls the telephones to be updated.
4. In IPT PDN field highlight the PDN(s) to be updated.
5. Click the **Select IPT(s)** button.
6. In the FTP Server Information section:
 - a. Select the SM/SD Media Card.
 - b. The User Name, Password, IP Address, and Data Directory will automatically populate with the correct information.
 - c. Use the File Name drop down to select the file for the IPT type (20X0 or 2008).
 - d. Click **Start**.
 - e. The telephone will automatically disable and you will observe the update status: Getting Updated file\Updating\Finished Updating\Resetting\idle.
 - f. After the upgrade is successful, the telephone will reset and be available for use.

Note It can take 30 seconds to 2 minutes to update the IP telephone. If an error occurs, recheck file names, locations etc. and try again.

7. Select **IP-Telephony > IPT Data**, field 09 to check the IP telephone version number to verify that all IP telephones have been updated properly.

To check the IP telephone firmware version directly from an IPT20X0 telephone

1. Simultaneously press **369Hold** buttons on the IPT20X0 Telephone.
2. At the SELECT = prompt, press **1** then press **Hold**.
3. At the Select function key prompt, press FB01, the IP telephone information will be displayed.

To check the IP telephone firmware version directly from an IPT2008 telephone

1. Simultaneously press **369Hold** buttons on the IP Telephone.
2. Select: “Term Info”
3. The IP telephone information will be displayed

Note The Network eManager PC cannot be connected directly to the CIX processor network jack. All connections must be through the network.

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