Lucent Technologies
Bell Labs Innovations

GuestWorks™ *server*
Technician's Handbook

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Lucent Technologies Global Business Communications Systems declares that GuestWorks equipment specified in this document conforms to the referenced European Union (EU) Directives listed below:
 Single-Carrier Cabinet (SCC), AC Powered with 25Hz ring generator

EMC Directive	89/336/EEC
Low Voltage Directive	73/23/EEC

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Acknowledgment
This document was prepared jointly by the Lucent Technologies Customer Training & Information Products Organization and the BCS Product Documentation Development group, Lucent Technologies Bell Laboratories, Denver, CO 80234-2703.

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About This Handbook

This handbook provides instructions for installing the GuestWorks™ *server* and all adjuncts offered as part of the GuestWorks *server* solution. The information provided in this handbook includes information about preparing the site, unpacking and installing the cabinets, connecting cabling and adjuncts, translating the server and adjuncts, and activating and testing the server.

Suggested Knowledge

It is suggested that the technicians installing this equipment receive training on the GuestWorks *server* and other Lucent Technologies Enterprise Communications Server (ECS) equipment before they install this equipment. Except for connectivity of hospitality adjuncts and translations, this handbook contains high-level reminders of the tasks needed to install the server, and is not intended to replace normal training.

Reasons for Reissue

This document is reissued for the following reasons:

- To add information about the Server/Intuity/Property Management System (PMS) Link Integration feature

- To make corrections concerning how to administer the Attendant Backup feature

- To correct a mistake in the order that you administer the processor interface channels

- To add information about the ASCII Data Over the Server-to-PMS Link feature

- To add information about the Attendant Crisis Alert feature

- To add information about the Toll Restriction option to the Controlled Restrictions feature

- To add ASCII Mode information to the PMS Interface feature

- To add information about inserting and deleting digits sent and received from the PMS

■ To add new information about the Recorded Announcement feature

■ To add information about the Compact Single Carrier Cabinet (CSCC)

■ To add information about the 302C attendant console

■ To add information to the parts list

■ To correct some values in the capacities table

■ To add miscellaneous information and corrections.

Conventions

The following conventions are followed in this handbook:

■ The terms "attendant console" and "backup voice terminal" are used in this document. The attendant console is the model 302B or 302C console that is usually found at the front desk. The preferred backup voice terminal is the model 8434 voice terminal with attendant-type feature buttons. The model 8410 can be used as a secondary backup to the model 8434.

■ Administration command paths and options you enter in the administration fields are shown as follows:

   change system hospitality-parameters

■ Field names referring to the administration screens are shown as follows:

   `Queue Length`

■ On the cabling diagrams, the << and >> symbols are used to show the plug-receptacle relationship. If this relationship is not known, the diagrams show a rectangular box.

Related Documents

The following resources are available for the GuestWorks *server*:

- 555-025-600 — *BCS Products Security Handbook*

- 555-204-105 — *DEFINITY® Communications System Generic 3i/s/vs Maintenance*

- 555-230-655 — *DEFINITY® Communications System Generic 3 Version 4 Implementation*

- 555-230-894 — *DEFINITY® ECS Installation and Test for Single-Carrier Cabinets*

- 555-231-104 — *GuestWorks™ server Technician Connectivity Training* (video tape)

- 555-231-204 — *GuestWorks™ server Feature Descriptions*

- 555-231-205 — *GuestWorks™ server Intuity™ Lodging Call Accounting User's Guide*

- 555-231-601 — *DEFINITY® Enterprise Communications Server (ECS), GuestWorks™ server, and System 75 Property Management System Interface Specifications*

- 555-231-735 — *GuestWorks™ server Console Operations*

- 555-231-777 — *GuestWorks™ server 8403 Voice Terminal Quick Reference*

- 555-231-780 — *GuestWorks™ server 8410 Voice Terminal Quick Reference*

- 555-231-783 — *GuestWorks™ server 8434 Voice Terminal Quick Reference*

- 585-310-146 — *Intuity™ MAP/5 Hardware Installation*

- 585-310-160 — *Intuity™ Software Installation for Release 3.0*

- 585-310-214 — *Intuity™ Integration with DEFINITY G3*

- 585-310-234 — *Intuity™ Lodging Property Management System Specifications*

- 585-310-559 — *Intuity™ Lodging Administration and Feature Operations*

European Union Declaration of Conformity

Lucent Technologies Business Communications Systems declares that GuestWorks equipment specified in this document (the single carrier cabinet, AC powered with 25Hz ring generator) conforms to the following referenced European Union (EU) Directives: EMC directive 89/336/EEC and Low Voltage Directive 73/23/EEC.

Overview of GuestWorks *server* Features

There are two levels of GuestWorks *server* features: Level I and Level II. The Level I features include the following:

- ASCII Data Over the Server-to-PMS Link
- Attendant Backup
- Attendant Crisis Alert
- Authorization Codes
- Automatic Route Selection (ARS)
- Attendant-activated Automatic Wakeup service
- Attendant-activated Do Not Disturb
- Busy verification
- Check-in/check-out
- Controlled restrictions
- Direct Access Calling (requires the Level II hardware TN750C)
- Emergency Access to the Attendant
- Maid status (requires enhanced hospitality)
- Message Waiting lamps, either LED or neon on guest room telephones
- Names Registration
- PMS Interface
- Room status (requires enhanced hospitality)
- Server/Intuity/PMS Link Integration
- Terminal Translation Initialization
- Trunk identification
- World Class Routing (WCR)
- PC-based TERRANOVA software.

The Level II features include all Level I features plus the following:

- Answer detection

- Support for Integrated Services Digital Network (ISDN) access using Primary Rate Interface (PRI) and Basic Rate Interface (BRI) voice terminals and adjuncts

- Guest-activated Automatic Wakeup (requires the TN725B speech synthesizer board)

- Guest-activated Do Not Disturb (requires the TN725B speech synthesizer board)

- Multiple recorded announcements (requires the TN750C announcements board).

Installation Overview

Except for the section about connecting hospitality adjuncts and translations, the information given in this document is a high-level listing of the tasks required when installing the Lucent Technologies single-carrier cabinet (SCC) or compact single-carrier cabinet (CSCC). Because of this, you should have access to the *DEFINITY ECS Installation and Test for Single-Carrier Cabinets*, (555-230-894), when detailed information is required.

⇒ **NOTE:**
The CSCC is also known as the very small (VS) cabinet. When the CSCC is used with GuestWorks, it is also known as the Extended Stay (ES) cabinet.

The installation of the GuestWorks *server* involves the following major tasks:

- Plan and prepare the site
- Unpack the cabinets
- Install and connect the cabinets
- Install the management interface
- Install telecommunications cabling
- Activate the server
- Connect the hospitality adjuncts
- Translate and test the hospitality adjuncts
- Test the server
- Install and wire telephones and other equipment
- Test telephones and other equipment
- Turn the server over to the customer.

Additional Parts and Test Equipment

Other than the tools and test equipment specified in the SCC Installation manual, you should also have the following items available on-site:

- RS232 mini-tester (provided with the GuestWorks)

> ➤ **NOTE:**
> The mini-tester shipped with GuestWorks shows a positive voltage with a green LED and negative voltage with a red LED. This can be verified by connecting the mini-tester to a printer's EIA port, adding power to the printer, and then putting the printer on-line. The DTR lamp should then light with a positive (green) voltage. You may already have your own mini-tester that shows positive voltage as red and negative voltage as green. If this is true at your installation, the mini-tester result diagrams shown in this handbook must be read from an "opposite" perspective; that is, if the book shows that DTR should be green, and you have a mini-tester that operates in an "opposite" mode, your mini-tester will show DTR being red. This perspective should be true for all data leads.

- RS232 gender changers and M25 RS232 cables
- Analog line used to place test calls
- GuestWorks *server* crash kits

  There are two crash kits used with GuestWorks. In addition to other parts, Crash Kit 30 has a TN791 and Crash Kit 37 has backup flash memory cards.

See "Appendix B — Parts List" on Page 126 for a listing of the parts used in this installation. Part numbers are provided in case replacements must be ordered.

Plan and Prepare the Site

1. Inventory the equipment delivered to the customer site and verify it matches the customer order. The equipment includes the following:

   ■ GuestWorks *server* cabinets

   ■ TERRANOVA™ software for a PC or a 715 management terminal

   ■ Multi-Application Platform/5 (MAP/5) for Intuity Lodging Voice Messaging, Intuity AUDIX® Voice Messaging, and Intuity Lodging Call Accounting

   ■ Attendant console (Model 302B or 302C)

   ■ Multiappearance voice terminals (usually the 8400-series terminals; the 8434 should be used for the primary attendant backup voice terminal)

   ■ Guest room telephones (Teledex[*] analog sets or equivalent)

   If Teledex telephones are being ordered, coordinate the translations on the server with any special feature access buttons being programmed by Teledex. This could save time at installation if programming is done ahead of time.

   ■ Modems

   ■ Miscellaneous equipment.

   The cabinets used for this installation are the SCC and CSCC design. This design has one carrier per cabinet as found with other Lucent Technologies ECS products.

2. Locate the equipment room and lay out the equipment room floor plan. When laying out the equipment locations, the MAP/5 hardware must be within 50 feet of the Property Management System (PMS) in all cases. The IDI link from the server to the MAP/5 can be up to 200 feet apart, but the call accounting link between the server and the MAP/5 is limited to 50 feet unless you use a 7400A data module. See Figure 3 for an overview of the GuestWorks connections.

   Additional equipment that you must consider when laying out the floor plan include the following:

   ■ PC with TERRANOVA or a 715 management terminal

   ■ Cross-connect fields

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[*] Teledex is a registered trademark of Teledex Corporation.

■ Space requirements and room layout; use standard floor plans found with other Lucent Technologies ECS products

■ Cable slack manager.

3. Lay out and ensure appropriate power for the server and the management terminal in the equipment room, and arrange for an electrician to install.

4. Lay out and ensure appropriate grounding in the equipment room, including provisions for couple bonding conductor.

5. Determine the location of equipment closets where feeder cables can be terminated.

6. Determine where external trunk lines come into the building and where external trunk converters and adapters will be installed.

7. Determine an appropriate available port circuit on the server for each telephone, trunk, and peripheral connection needed and create a provisioning plan based on standard procedures.

8. Contact the customer and have them contact the PMS vendor and the call accounting system vendor (if not using the Intuity Lodging Call Accounting) to find out if there are any special connections required to interface with their equipment. It is highly recommended that the customer schedule their vendors to be on-site when the connections are made and the testing is done for the PMS and the call accounting. If the vendor cannot be on-site, they should at least be available remotely.

9. If this is an upgrade from an existing system, remind the customer that during the cutover they must manually note all wakeup requests and Do Not Disturb requests. After the cutover is complete, they must manually input these requests on the new server.

Unpack the Cabinets

⚠ **CAUTION:**
Lifting the SCC cabinet requires two people, as it may weigh as much as 130 pounds (60 kilograms). Use caution to avoid injury.

1. Unpack the cabinets.

2. Open and remove the front door and back panels from each cabinet.

3. Inspect the cabinets for any damage. Report any damages according to local shipping instructions.

4. Ensure that all circuit packs are fully inserted into the proper slots according to the Customer Service Document (CSD). Report any discrepancies to your Lucent Technologies representative or authorized dealer.

Install and Connect the Cabinets

The cabinets must be installed and connected following standard procedures as defined by Lucent Technologies.

> ⚠ **DANGER:**
> *If the label near the circuit breaker on the power supply is different from the voltage type at the site, notify your Lucent Technologies representative or authorized dealer immediately for a replacement power supply. Do **not**, under any circumstances, connect to power!*

1. Install earthquake floor mounting as determined by local requirements.

2. Position and stack the cabinets in the location shown in the room layout. The CSD shows the order in which each SCC should be stacked.

3. Connect the server cabinet grounds.

4. Connect the cabinets to AC power.

5. Connect the standby power if it has been engineered for the site. Use the installation instructions given with the standby power product.

6. Locate and connect the Time Division Multiplexer (TDM) bus.

7. Verify the port cabinet address plugs.

8. Replace the cabinet back panels.

9. Install the ground plates. This is done differently depending on whether or not you are using earthquake protection.

10. Install the cable clamps.

11. Install the front plates (if needed for electromagnetic shielding and/or earthquake protection).

12. Install the cabinet clips (used only if you do not have earthquake protection or electromagnetic shielding).

Install the Management Interface

The management interface for administration can be either the customer's PC loaded with the TERRANOVA terminal emulation software or the 715 Management Terminal (715MT). The customer is supposed to set up his or her own PC with TERRANOVA, but technicians are responsible for connecting and setting up the 715MT. For customers that use their PC for administration, you can use their PC to access administration, or you can use a laptop with terminal emulation software.

Figure 1 shows how to connect the customer's PC to the server. The components used for this connection include the following:

■ Customer's PC, keyboard, and monitor

■ One M25 RS232 cable (or equivalent straight-through cable); see Table 14

■ One 9-pin to 25-pin transition cable (if using a 9-pin COM port) (comcode 847106945)

■ Gender changers, as needed.
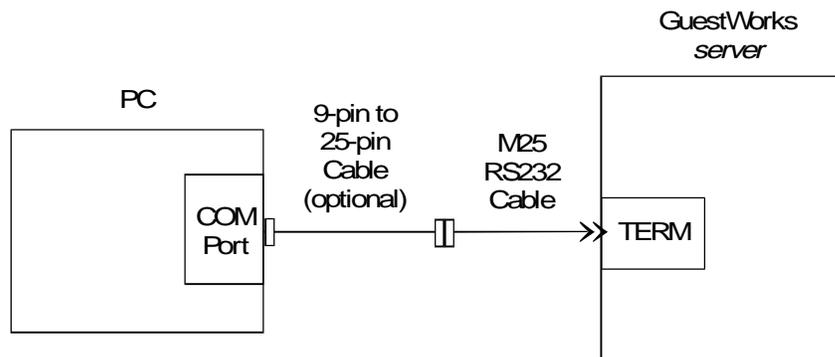
Figure 1.   PC Connection to the Server

When using the TERRANOVA software, the customer must first access the **Control** pull-down menu and set the **host** option to **other**. The customer must then set the communication options as shown in Table 1.

Table 1.   TERRANOVA Communication Options

Option	Value
Emulation	4410
Duplex	Full
Speed	9600
Parity	None
Data Bits	8
Stop Bits	1

Figure 2 shows how you connect the 715MT to the server. The components used for this connection include the following:

- One 715MT terminal and keyboard

- One M25B RS232 cable (or equivalent straight-through cable)
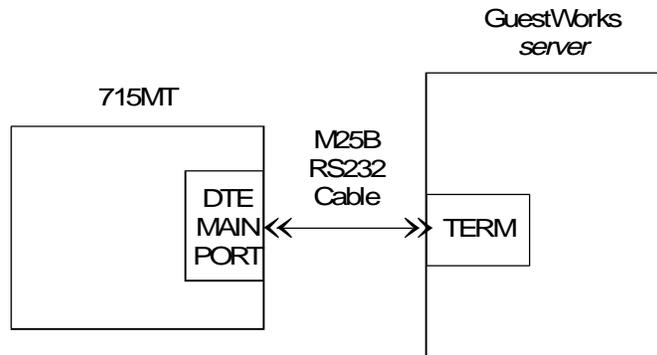
Figure 2.   715 Management Terminal Connections

Administer the 715MT parameters given in Table 2. All but one of these options should default correctly, but they are given here and should be checked for proper operation.

Table 2.   715MT Options

Terminal Option	Value
Font Size	Large (default)
Autowrap	Off (default)
Baud Rate	9600 (default)
Stop Bit	1 (default)
Data Bits	7 (default)
Parity	Space (default)
Check Parity	Yes (default)
Transmission Flow Control	Xon, Xoff (default)
Enter Key	escapeSB (must be set)

Install Telecommunications Cabling

1. Install the cross-connect equipment.

2. Install the cable slack manager.

3. Label the cables.

4. Route the cables from the cabinet to the cross-connect field.

5. Connect the control carrier outputs cable (the AUX port cable).

6. Install trunk cables among the network interface, the sneak fuse or circuit breaker panel, and the server cabinet.

7. Install the coupled bonding conductor grounding.

Activate the Server

1. Set the write-enable switch on the flash-memory card to the write position. A flash card is provided with every server, but you may get a version that has the customer's translations already administered. Save any extra flash cards and return them for reuse.

2. Insert the flash-memory card into the TN777B circuit pack.

3. Ensure that the circuit breakers at the power panel are set to **ON**.

4. Set the circuit breakers on the back of each cabinet to the **ON** position.

5. After the server powers up, log into the server at the customer's PC or the 715MT. Use the craft login id and the crftpw password.

6. Set the required country options. Use the command path **change system country-parameters**.

7. Change the craft password. Use the command path **change restriction password**.

> ⚠ **CAUTION:**
> *After the craft password is changed, the new password must be safeguarded to prevent unauthorized administration changes. This password MUST NOT BE REVEALED to the customer.*

8. Set the date and the time. Use the command path **execute set time**.

9. Set the server maintenance parameters if the Packet Controller (TN778 circuit pack) is included to support ISDN PRI and BRI. Use the command path **change system maintenance-parameters**.

10. Save the translations. Use the command path **server save translation**. Label the translation card with the current date and server name.

Connect Hospitality Adjuncts

The hospitality adjuncts include the following:

- Intuity Lodging Voice Messaging

  Intuity Lodging Voice Messaging is an optional adjunct installed on the MAP/5 platform. Intuity Lodging is used for the guest access to voice messages, and Intuity AUDIX is used for the office staff to access voice messaging.

- Intuity Lodging Call Accounting

  Intuity Lodging Call Accounting is an optional adjunct installed on the MAP/5 platform. If Intuity Lodging Call Accounting is not purchased, other call accounting systems can be installed if the call record format is compatible with the GuestWorks *server*. Two typical formats are *Teleseer* and *printer*.

  Intuity Lodging Call Accounting is based on a product from the Homisco Corporation. At most installations, you can expect a technician from Homisco to be on-site to install the software and hardware for the Call Accounting piece of the product. The Homisco technician will assist you in connecting the call accounting equipment.

  For installations that include Intuity Lodging Voice Messaging and Intuity Lodging Call Accounting, all connections are shown in complete detail. For installations that include voice mail or call accounting from another vendor, the connections are shown up to a definable demarcation point. Connections beyond that demarcation point must be coordinated with the vendor.

- Property Management System (PMS)

  The PMS is a vendor-provided product that interfaces to the GuestWorks *server* according to the *DEFINITY® Enterprise Communications Server (ECS), GuestWorks™ server, and System 75 Property Management System Interface Specifications*, (555-231-601). If the PMS follows this specification, the PMS will connect to the server when the correct cabling is installed. The PMS connections are shown up to a definable demarcation point. Connections beyond that demarcation point must be coordinated with the vendor.

■   Printers

Up to two serial printers can be installed to print hospitality reports and keep a log of events as they occur on the server. Each printer connects to the server using a 7400A data module. The printers are designated as either a "journal/schedule" printer or a "log" printer. The journal/schedule printer records Emergency Access to Attendant calls and Automatic Wakeup calls. The log printer records housekeeping updates when the PMS link is down, in addition to recording any other PMS-related events. These PMS events are shown in "Appendix D — List PMS Down Events" on Page 129.

Overall GuestWorks Connectivity

Figure 3 shows the overall connectivity for the GuestWorks *server* when using the MAP/5 for Intuity Lodging Voice Messaging, Intuity Lodging Call Accounting, plus connections to a PMS. References to the detailed connectivity drawings are shown in this figure. Table 3 also gives references to the detailed connectivity drawings based on the equipment you are installing.
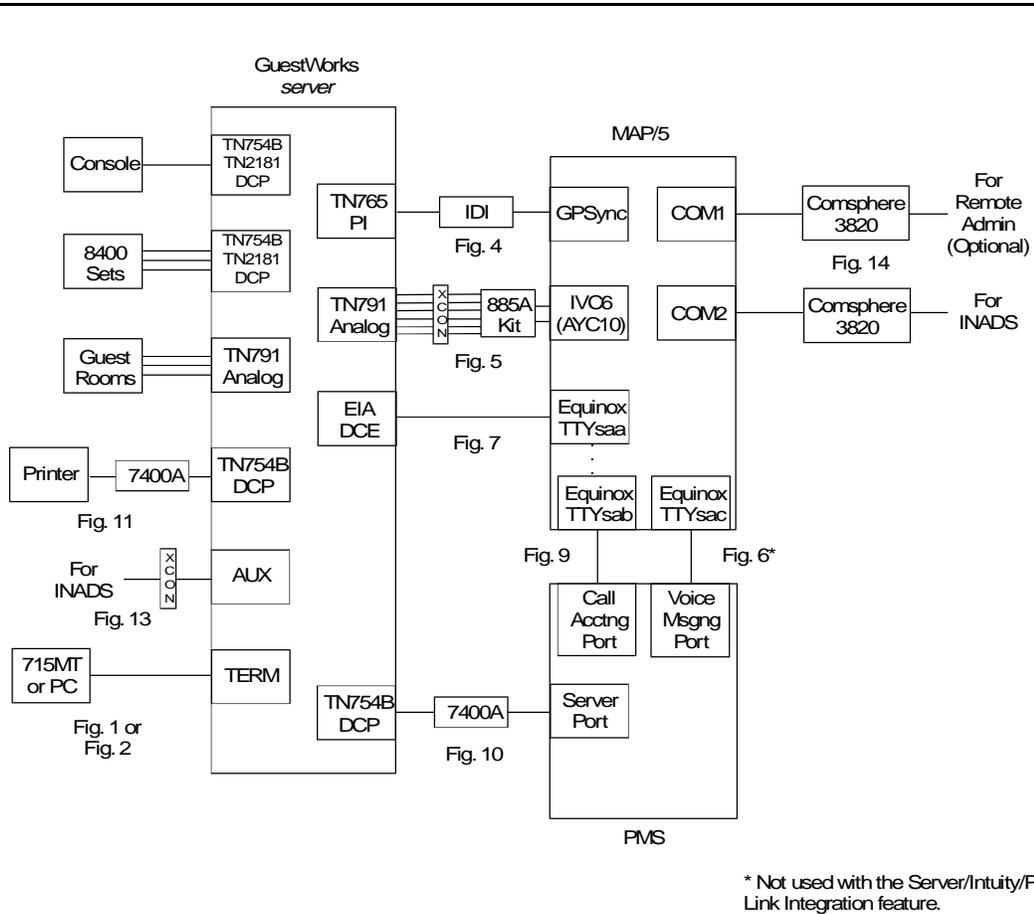
Figure 3.   Overall GuestWorks *server* Connectivity

Table 3.   Matrix for Cabling Diagrams

From...	To...					
	Server	**Intuity Lodging Voice Messaging**	**Intuity Voice Ports**	**Intuity Lodging Call Accounting**	**Generic Call Accounting**	**PMS**
Server		Figure 4	Figure 5	Figure 7	Figure 8	Figure 10
Intuity Lodging Voice Messaging	Figure 4					Figure 6*
Intuity Lodging Call Accounting	Figure 7					Figure 9

* This cabling is not required when using the Server/Intuity/Link Integration feature.

Server-to-Intuity Admin Link

Figure 4 shows a detailed connection for the Processor Interface (PI) port on the server to the GPSync card on the MAP/5. This connection is required for any GuestWorks installation using the MAP/5. This data link transfers information to support the Intuity AUDIX service for office staff voice messaging. The components used for this connection include the following:

■ The PI port (TN765) on the server

■ One H600-210 Group 3 cable (50 feet)

   The distance limit between the server and the 105B Isolating Data Interface (IDI) is 200 feet. If you need a cable longer than the 50 foot cable provided, order a Group 4 cable (100 feet) or a Group 5 cable (200 feet).

■ One 105B IDI unit (comcode 105778179)

   The 105B IDI provides electrical isolation and protection between the server and the Intuity hardware.

■ One ED1E434-11 Group 175 cable (4.5 feet)

■ One GPSync card installed in the MAP/5; usually located in slot 1 (comcode 406801647).
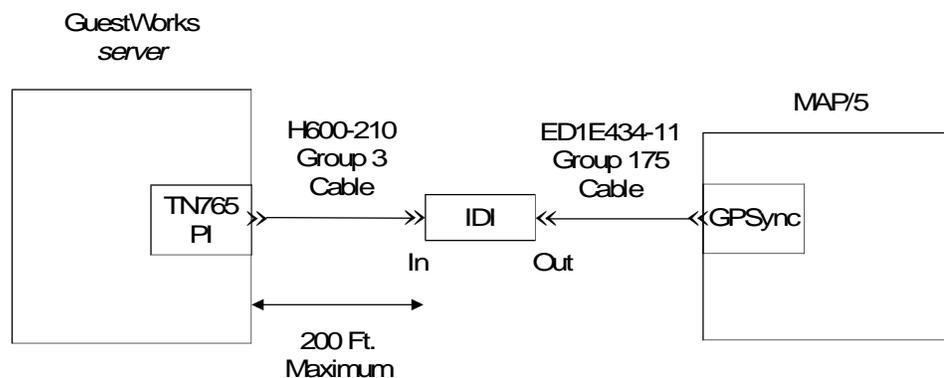
Figure 4.   Server-to-Intuity Admin Link

Server-to-Intuity Voice Port Connections

Figure 5 shows the connections between the TN791 analog board ports on the server and the IVC6 (AYC10) voice port card on the MAP/5. This connection provides the voice ports used when guests and office staff call the Intuity for their voice messages. For more information about this connection, consult the *Intuity MAP/5 Hardware Installation*, (585-310-146). The components used for this connection include the following:

- One or two IVC6 (AYC10) cards in the MAP/5 (comcode 106406580)

  Each IVC6 card supports six voice ports. You can have up to 12 ports for voice messaging. If you have 12 voice ports, you must install two of the 885A connector kits. This figure shows connections for one kit using all six voice ports. Depending on the customer's order, you will install 4, 6, 8, 10, or 12 voice ports.

- Two or four ED5P208-30 Group 16 modular cords

  You need two cords for each IVC6 card.

- One 885A connector kit for each IVC6 card installed in the MAP/5 (comcode 601419666)

  These kits come with the 885A connecting block (comcode 106079270), six RJ11C 2-wire modular cords (comcode 103732582), and two RJ25 6-wire modular cords. The two RJ25 6-wire modular cords are not used in this application. **DO NOT USE THE RJ25 CORDS FOR ANY GUEST-WORKS CONNECTIONS.**

- Four to twelve 103A modular connecting blocks (one for each voice port) (comcode 105164818)

- Standard cross-connect hardware

- TN791 analog interface.

  ⇒ **NOTE:**
  Each TN791 supports 16 analog voice connections. The TN791 wires out the same as a TN746B. When making cross-connects for voice messaging, skip every other port to spread out the voice messaging traffic (for example, 0, 2, 4, 6, and so on); do not connect the voice ports in a contiguous fashion (that is, 0, 1, 2, and so on).
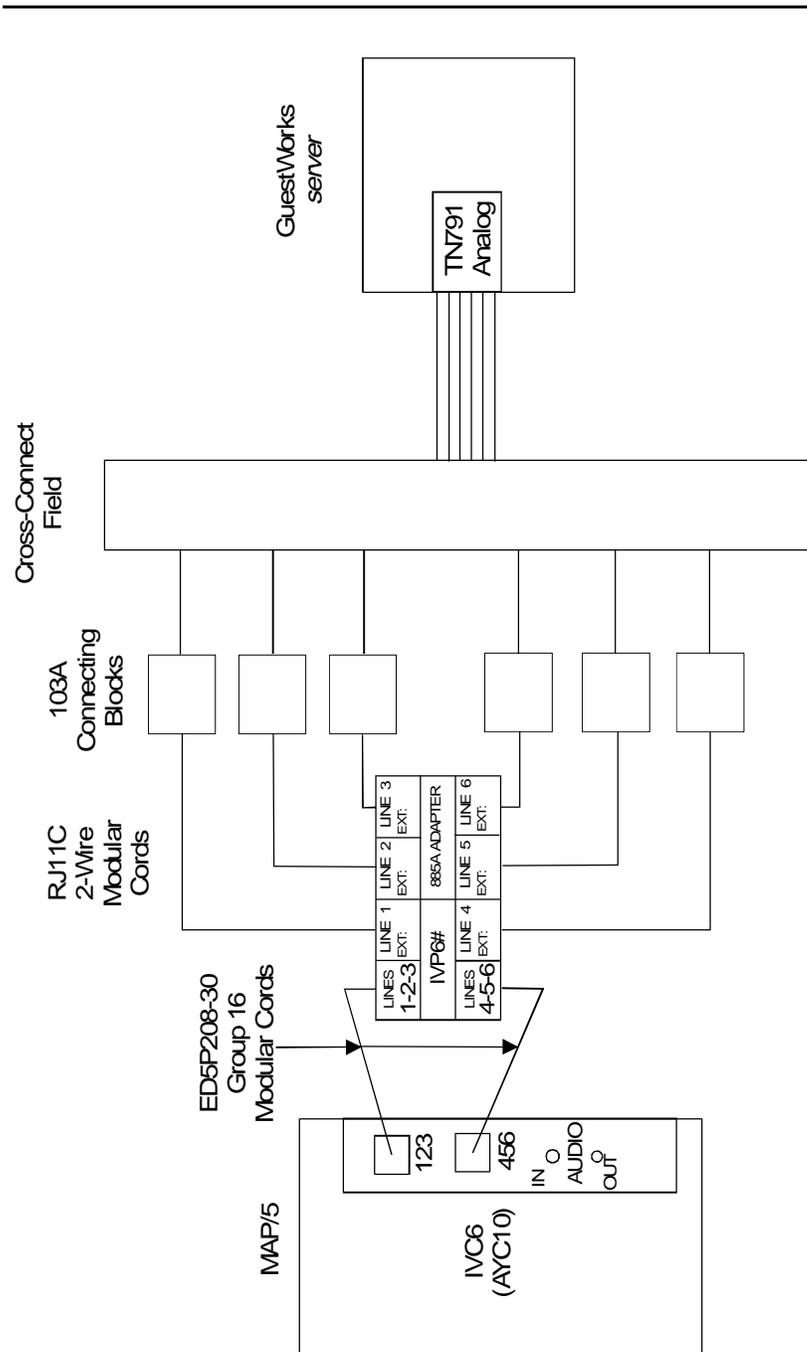
Figure 5.   Server-to-Intuity Voice Port Connections

Intuity Lodging-to-PMS Link

Figure 6 shows how to connect the MAP/5 to a PMS. This connection is used to activate and deactivate guest voice messaging mailboxes when guests check-in and check-out. If the Server/Intuity/PMS Link Integration feature is used, this connection is not required. See "Intuity Lodging-to-PMS Translations" on Page 87 for more information about this feature. The components used for this connection include the following:

■ One Equinox card on the MAP/5 (comcode 407009406; J1P260AA1, List 12)

   For this connection, use the third port on the Equinox card. This port is not marked on the card, but is administered in software as port TTYsac.

■ One D6AP modular cord (comcode 102937604)

■ One Equinox P/N:210068 DTE 10/10 adapter (DB25 DTE, comcode 406983155); see "Appendix C — Connector Pinouts"

■ One null modem with transmit/receive swapped (all other leads are straight-through) (comcode 407122043)

■ One RS232 cable (use gender changers as needed).
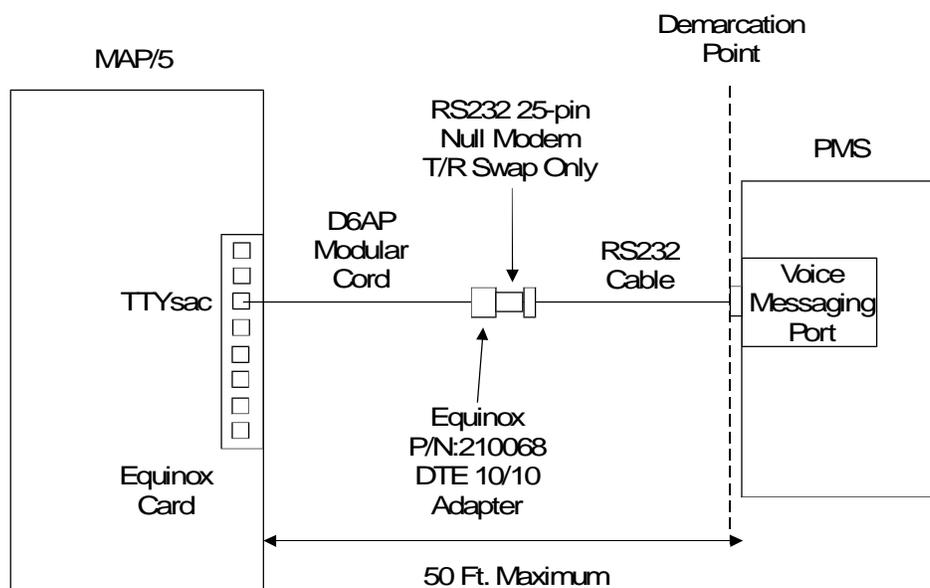
Figure 6.   Intuity Lodging-to-PMS Link

Test Procedure for Intuity Lodging-to-PMS Link

Using the RS232 Mini-Tester (see the Note on Page 7), check the status of the link where the Equinox adapter connects to the null modem as shown in Figure 6. The leads marked with an asterisk are controlled by the Intuity, and the PMS controls the other leads. Translations for this connection begin on Page 87.

With the mini-tester connected to only the Equinox adapter coming from the MAP/5, the mini-tester should show the following:

```
TD*  ○ red
                 dark ○ RD
RTS* ○ dark
                 dark ○ CTS
DSR  ○ dark
                 green ◉ DTR*
  CD ○ dark
```

With the mini-tester connected to only the PMS at the null modem, the mini-tester should show the following:

```
TD*  ○ dark
                 red ◉ RD
RTS* ○ dark
                 red ◉ CTS
DSR  ◉ red
                 dark ○ DTR*
  CD ◉ red
```

After the connection is complete but in an idle state, the mini-tester should show the following:

```
TD*  ◉ red
                 red ◉ RD
RTS* ○ dark
                 red ◉ CTS
DSR  ◉ red
                 green ◉ DTR*
  CD ◉ red
```

Server-to-Call Accounting Link (with Intuity Lodging Call Accounting)

Figure 7 shows how to connect the DCE port on the server to the MAP/5. This connection is used to transfer Call Detail Recording (CDR) information to the Intuity Lodging Call Accounting software. The components used for this connection include the following:

■ The DCE port on the server

■ One M25A RS232 cable (or equivalent straight-through cable) (comcode 105193668)

■ One Equinox P/N:210068 DTE 10/10 adapter (DB25 DTE, comcode 406983155); see "Appendix C — Connector Pinouts"

■ One D6AP modular cord (comcode 102937604)

■ One Equinox card on the MAP/5 (comcode 407009406; J1P260AA1, List 12)

For this connection, use the first port on the Equinox card. This port is not marked on the card, but is administered in software as port TTYsaa.

⇒ **NOTE:**
If the distance from the server and the MAP/5 is farther than 50 feet, substitute the DCE port and the M25A RS232 cable with a DCP port and a 7400A data module. The connection is similar to the one shown in Figure 10.
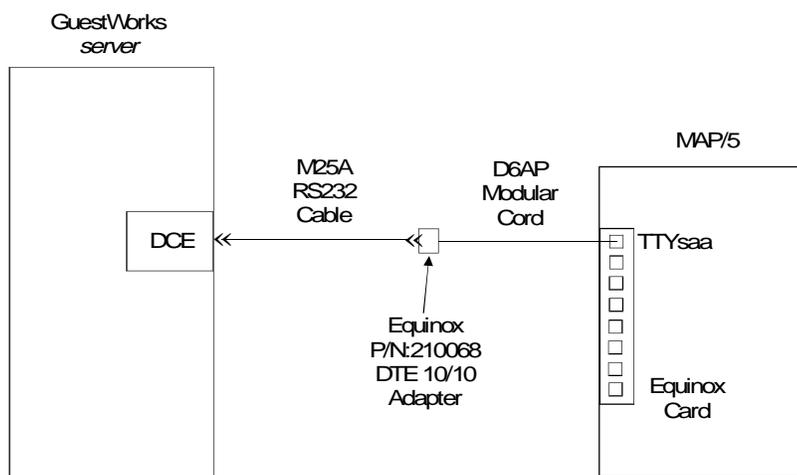
Figure 7.   Server-to-Call Accounting Link (with Intuity Lodging Call Accounting)

Test Procedure for Server-to-Call Accounting Link

Using the RS232 Mini-Tester (see the Note on Page 7), check the status of the link where the Equinox adapter connects to the M25A cable as shown in Figure 7. The leads marked with an asterisk are controlled by the server, and the Intuity controls the other leads. Translations for this connection begin on Page 92.

With the mini-tester connected to only the M25A cable, the mini-tester should show the following:

```
 TD ○ dark
                   red ◉ RD*

RTS ○ dark
                green ◉ CTS*

DSR*○ green
                 dark ○ DTR

 CD*◉ green
```

With the mini-tester connected to only the Equinox adapter, the mini-tester should show the following:

```
 TD ◉ red
                 dark ○ RD*

RTS ○ dark
                 dark ○ CTS*

DSR*○ dark
                green ◉ DTR

 CD*◉ red
```

After the connection is complete, the mini-tester should show the following (if any of the server leads are dark on an end-to-end connection, the TN786B processor board should be replaced):

```
 TD ◉ red
                  red ◉ RD*

RTS ○ dark
                green ◉ CTS*

DSR*◉ green
                green ◉ DTR

 CD*◉ green
```

Server-to-Call Accounting Link (Generic Call Accounting)

Figure 8 shows how to connect the DCE port on the server to a generic call accounting system. This connection is used to transfer CDR information to the call accounting system. The components used for this connection include the following:

■ The DCE port on the server

■ One M25 cable plus gender changers as needed (or equivalent straight-through cable)

■ One cable to connect from the M25 cable and the interface port on the call accounting system (customer- or vendor-supplied)

⇒ **NOTE:**
If the distance from the server and the generic call accounting system is farther than 50 feet, substitute the DCE port and the M25A RS232 cable with a DCP port and a 7400A data module. The connection is similar to the one shown in Figure 10.

GuestWorks
server

Demarcation
Point

Generic
Call Accounting

M25
RS232
Cable

Interface
Cable

DCE
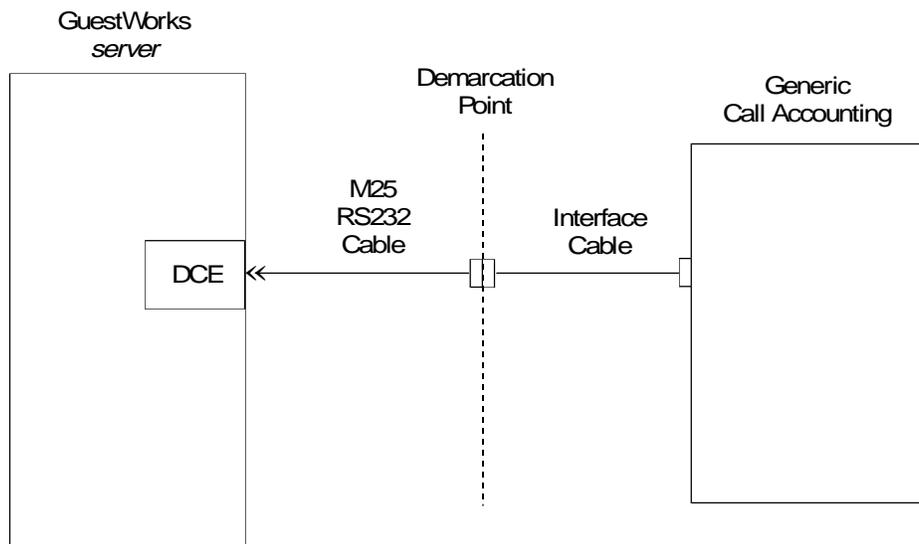
Figure 8. Server-to-Call Accounting Link (Generic Call Accounting)

Test Procedure for Server-to-Call Accounting Link

Using the RS232 Mini-Tester (see the Note on Page 7), check the status of the link at the demarcation point as shown in Figure 8. The leads marked with an asterisk are controlled by the server, and the generic call accounting controls the other leads. Translations for this connection begin on Page 92.

With the mini-tester connected to only the M25 cable from the server, the mini-tester should show the following:

```
TD  ○ dark
                      red  ◉ RD*
RTS ○ dark
                    green ◉ CTS*
DSR*◉ green
                     dark ○ DTR
  CD*◉ green
```

With the mini-tester connected to only the interface cable to the generic call accounting, the mini-tester should show the following:

```
TD  ◉ red
                     dark ○ RD*
RTS ◉ green
                     dark ○ CTS*
DSR*○ dark
                    green ◉ DTR
  CD*○ dark
```

After the connection is complete, the mini-tester should show the following (if any of the server leads are dark in an end-to-end connection, the TN786B processor board should be replaced):

```
TD  ◉ red
                      red  ◉ RD*
RTS ◉ green
                    green ◉ CTS*
DSR*◉ green
                    green ◉ DTR
  CD*◉ green
```

Intuity Lodging Call Accounting-to-PMS Link

Figure 9 shows another connection between the MAP/5 and a PMS. This connection is used to transmit the call accounting information from the MAP/5 to the PMS. The components used for this connection include the following:

■ One Equinox card on the MAP/5 (comcode 407009406; J1P260AA1, List 12)

For this connection, use the second port on the Equinox card. This port is not marked on the card, but is administered in software as port TTYsab.

■ One D6AP modular cord (comcode 102937604)

■ One Equinox P/N:210068 DTE 10/10 adapter (DB25 DTE, comcode 406983155); see "Appendix C — Connector Pinouts"

■ One cable used to connect to the PMS (customer- or vendor-supplied).
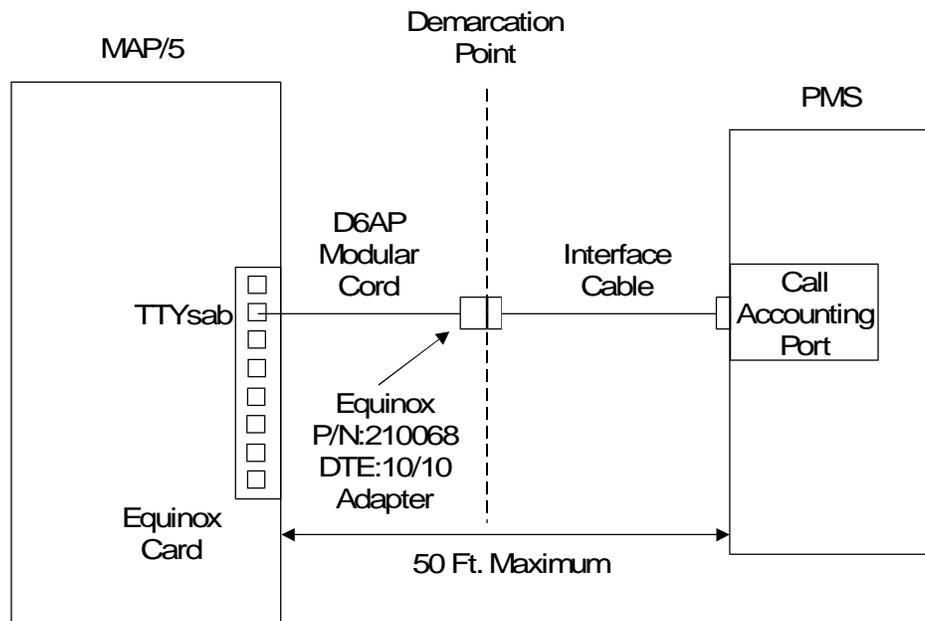
Figure 9.   Intuity Lodging Call Accounting-to-PMS Link

Server-to-PMS Link

Figure 10 shows how to connect the server to a PMS. This connection is used to transfer the normal hospitality information such as names registration, check-in, check-out, and so on. The components used for this connection include the following:

■ One TN754B digital communications protocol (DCP) port on the server

■ Standard cross-connect hardware

■ One D8W modular cord

■ One 7400A DCP data module optioned as shown in Table 4

■ One M25 cable (or equivalent straight-through cable); see Table 14.
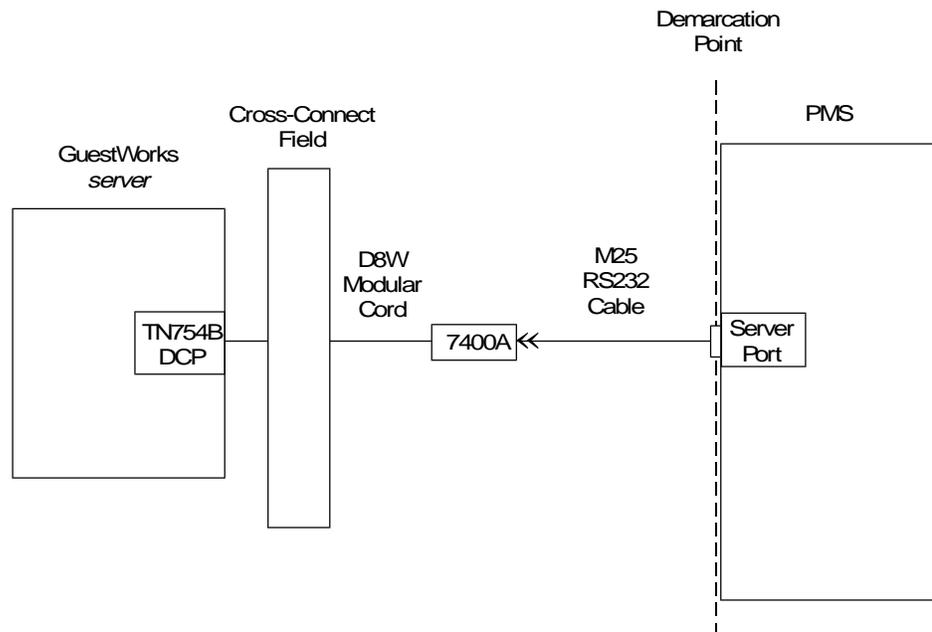
Figure 10. Server-to-PMS Link

The options for the 7400A used for the server-to-PMS connection are given in Table 4. These options must match the PMS communication parameters, which are usually 9600 bps, 8 data bits, 1 stop bit, and no parity.

The data module interface board must by positioned at the DCE location, and the interface option must be set for Answer-Only mode.

Table 4.   7400A Options for Server-to-PMS Link

Set Interface	Set Values
Option	Answer-only mode
Set Option Displays	**Set Values**
Set 300 speed	OFF
*Set 1200 speed	OFF
Set 2400 speed	OFF
Set 4800 speed	OFF
*Set 9600 speed	ON
Set 19200 speed	OFF
Set Answer	AUTO
Set Break DISC	LONG
Set CI Lead	OFF
Set CH Lead	OFF
Set CTS Lead	NORMAL
Set DCD Lead	NORMAL
Set DSR Lead	NORMAL
Set DTR Detect	50
Set DTR Lead	FOLLOW
Set LL Lead	OFF
Set Remote Loop	GRANT
Set RI Lead	ON
Set RL Lead	OFF
Set SIGLS DISC	ON
Set TM Lead	OFF

* The speed is typically set to 9600 for Transparent mode and 1200 for Normal mode. Verify the speed setting with the PMS vendor.

Test Procedure for Server-to-PMS Link

Using the RS232 Mini-Tester (see the Note on Page 7), check the status of the link at the 7400A as shown in Figure 10 before you connect to the PMS. The leads marked with an asterisk are controlled by the server, and the PMS controls the other leads. Translations for this connection begin on Page 93.

When the mini-tester is connected to only the 7400A, the mini-tester should show the following:

```
 TD ○ dark
                    red ◎ RD*

RTS ○ dark
                    red ◎ CTS*

DSR*◎ red
                   dark ○ DTR

 CD*◎ red
```

⇒ **NOTE:**
RTS will be lit on the 7400A.

With the mini-tester connected to only the PMS, the mini-tester should show the following:

```
 TD ◎ red
                  dark ○ RD*

RTS ◎ green
                  dark ○ CTS*

DSR*○ dark
                  green◎ DTR

 CD*○ dark
```

After the connection is complete, the link will be idle, but the mini-tester should show the following (if any of the server leads are dark in an end-to-end connection, the TN786B processor board should be replaced):

```
 TD ◎ red
                    red ◎ RD*

RTS ◎ green
                    red ◎ CTS*

DSR*◎ red
                  green◎ DTR

 CD*◎ red
```

Journal/Log Printer Connections on the Server

Figure 11 shows how to connect either a journal/schedule printer or a log printer to the server. These printers are used to run hospitality service reports, and to report failed wakeup calls and Do Not Disturb requests. The components used for each printer connection include the following:

■   One or two TN754B DCP ports on the server

■   Standard cross-connect hardware

■   One or two D8W modular cords

■   One or two 7400A DCP data modules optioned as shown in Table 5

■   One or two M25B cables (or equivalent straight-through cables); see Table 14.

■   One or two model 572 journal/log serial printers (or equivalent).
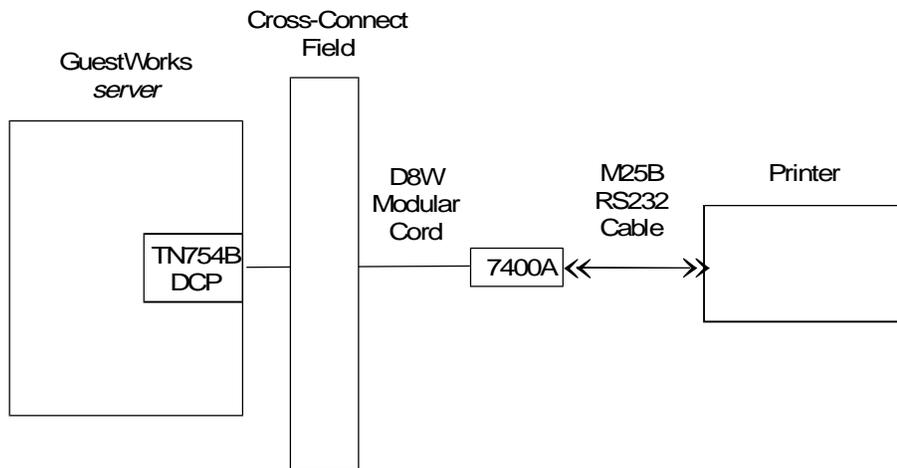
Figure 11. Printer Connections on the Server

Table 5.   7400A Options for Journal/Log Printers

Set Interface	Set Values
Option	Answer-only mode
Set Option Displays	**Set Values**
Set 300 speed	OFF
Set 1200 speed	OFF
Set 2400 speed	OFF
Set 4800 speed	OFF
Set 9600 speed	ON
Set 19200 speed	OFF
Set Answer	AUTO
Set Break DISC	LONG
Set CI Lead	OFF
Set CH Lead	OFF
Set CTS Lead	NORMAL
Set DCD Lead	NORMAL
Set DSR Lead	NORMAL
Set DTR Detect	50
Set DTR Lead	FOLLOW
Set LL Lead	OFF
Set Remote Loop	GRANT
Set RI Lead	ON
Set RL Lead	OFF
Set SIGLS DISC	ON
Set TM Lead	OFF

Table 6. Model 572 Journal/Log Printer Options

Function		Menu	
Number	**Name**	**Number**	**Status**
01	FORM LENGTH	09	11
02	LPI	01	6
03	CPI	01	10
04	LQ or NLQ	01	LQ
05	BUZZER	01	ON
06	FONT	02	FONTCART
07	RESOLUTION	01	144
11	BUFFER	02	N-LINE
13	PW ON MODE	01	ON-LINE
14	DIRECTION	01	B1-DIR.1
15	BUFF FULL	02	LF + CR
16	P.E.	01	ACTIVE
17	AUTO CARRIAGE RETURN (CR)	01	CR + LF
18	ZERO	01	0
22	AUTO LINE FEED	01	CR ONLY
31	1" SKIP	01	OFF
32	CHAR.SET (GO, GL)	02	USA
33	CHAR.SET (G1, GR)	01	UK
34	CHAR SET (G2)	03	GE
35	CHAR SET (G3)	07	LINE DRAWING
81	OFF-LINE STATE	01	ALL RECEIVE
82	DSR	02	OFF
83	REQUEST TO SEND TIMING	01	RTS
84	CD	02	OFF
85	CLEAR TO SEND (CTS)	02	OFF
91	OVER RUN	02	256
92	DATA BIT	02	8
93	PROTOCOL	03	XON/XOFF
94	STOP BIT	01	1
95	PARITY	01	NONE
96	PBS	01	9600

Test Procedure for Journal/Log Printers

Using the RS232 Mini-Tester (see the Note on Page 7), check the status of the connection at the 7400A as shown in Figure 11. The leads marked with an asterisk are controlled by the server, and the printer controls the other leads. Translations for this connection begin on Page 109.

With the mini-tester connected to only the 7400A, the mini-tester should show the following:

```
  TD ○ dark
                    red ◉ RD*

RTS ○ dark
                    red ◉ CTS*

DSR*◉ red
                   dark ○ DTR

  CD*◉ red
```

⇒ **NOTE:**
RTS will be lit on the 7400A.

With the mini-tester connected to only the printer, the mini-tester should show the following:

```
  TD ◉ red
                   dark ○ RD*

RTS ◉ green
                   dark ○ CTS*

DSR*○ dark
                  green ◉ DTR

  CD*○ dark
```

After the connection is complete, the link will be idle and no software is running, but the mini-tester should show the following:

```
  TD ◉ red
                    red ◉ RD*

RTS ◉ green
                    red ◉ CTS*

DSR*◉ red
                  green ◉ DTR

  CD*◉ red
```

Printer Connection on the Intuity

Figure 12 shows how to connect a printer to the MAP/5. This is an optional printer that the customer may order to run Intuity Lodging Call Accounting reports. The components used for this connection include the following:

■ One Centronics parallel printer cable (customer-provided)

■ One parallel printer (customer-provided).

MAP/5

Parallel
Printer

Centronics
Parallel
Cable
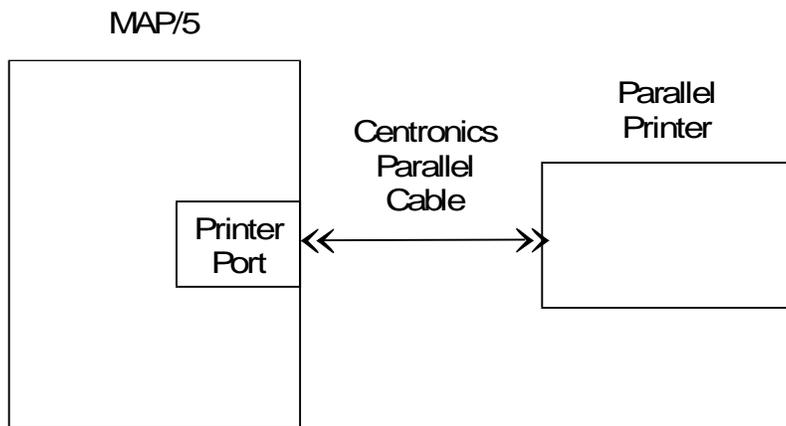
Printer
Port

Figure 12. Printer Connection on the Intuity

Server-to-INADS Connections

Figure 13 shows how the INADS port is connected at the server for remote maintenance access. The components used for this connection include the following:

■ The AUX connector on the server

■ One B25A 25-pair cable for cross-connections (tie the CO trunk to the last pair on this cable)

■ Standard cross-connect hardware

■ One CO trunk for dedicated access
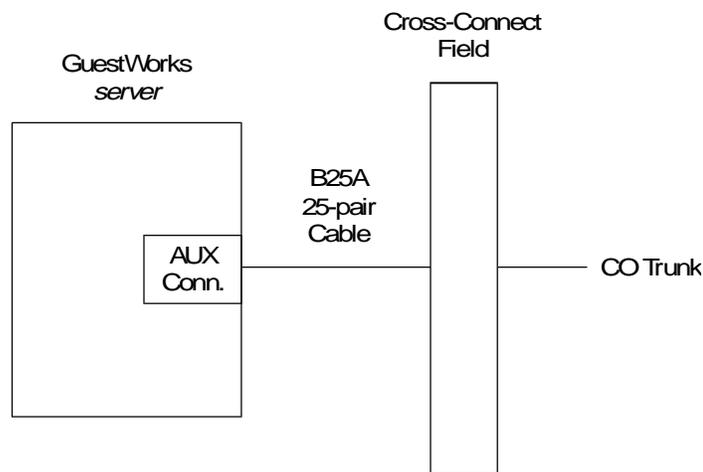
Figure 13. INADS Connection for Remote Access

INADS Acceptance

After connecting the CO trunk for INADS access, call the INADS hotline at 1-800-248-1111 in the United States. If the installation is outside of the United States, contact your Center of Excellence (COE) for information about registering the server. You will be instructed to give them the dial-up number, the customer identification number, serial number, and other information. You will also be instructed to add some information to the system maintenance parameters screen.

```
change system maintenance-parameters                        Page   1 of   2
                   MAINTENANCE-RELATED SYSTEM PARAMETERS

OPERATIONS SUPPORT PARAMETERS
           Product Identification: 1000000000
              OSS Telephone Number:
       Alarm Origination Activated? n
        Cleared Alarm Notification? n
              Restart Notification? n
           Test Remote Access Port? n
          CPE Alarm Activation Level: none
              Packet Bus Activated? n
     Customer Access to INADS Port? n

SCHEDULED MAINTENANCE
                     Start Time: 05 : 00    Stop Time: 06 : 00
                Daily Maintenance: daily
                 Save Translation: daily
        Control Channel Interchange: no
          System Clocks Interchange: no
                  SPE Interchange: no
             EXP-LINK Interchange: no
```

MAP/5 Remote Access Connections

Figure 14 shows how to connect the Paradyne Comsphere 3820 modems to the MAP/5 for remote access. The INADS access is required, but the remote administration is optional. See the Intuity documentation for more information about this remote access connection. The components required for this connection include the following:

■ One or two Comsphere 3820 modems (comcode 107560534)

■ One straight-through 9-pin to 25-pin transition cable (required for the INADS connection) (comcode 847106945)

■ One or two M25A cables (or equivalent straight-through cable) (comcode 105193668)

■ One or two 8-pin modular cords

■ Standard cross-connect hardware

■ One or two CO or DID trunks.
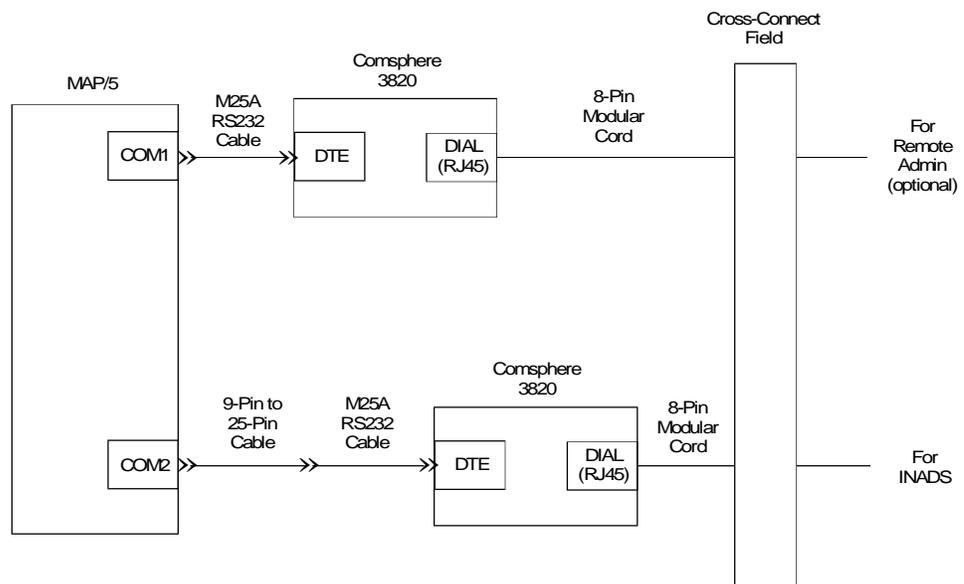
Figure 14. MAP/5 Remote Access Connections

INADS Alarm Origination Download

You can have the Comsphere 3820 automatically configured by doing an alarm origination download. To start this download, do the following:

1. Use the **Customer/Services Administration**, **Alarm Management** command to display the following screen:

```
+---------------------------------------------+
+              Alarm  Management          +
+---------------------------------------------+
|Product ID                 2200000000    |
|                                         |
|Alarm Destination          18005353573   |
|                                         |
|Alarm Origination          ACTIVE        |
|                                         |
|Alarm Level                MAJOR         |
|                                         |
|Alarm Suppression          INACTIVE      |
|                                         |
|Clear Alarm Notification   ACTIVE        |
+---------------------------------------------+
```

2. Enter the information as shown in the screen, using your actual `Product ID`, `Alarm Destination` phone number (the INADS number), and `Alarm Level` (MINOR or MAJOR depending on the maintenance contract).

3. Once the options are correct, press F3 to save the options. Press Enter to continue.

4. Press F8 to select the `Chg Keys` function.

5. Press F1 to select the `Test Alrm` function.

6. Select the `Execute Alarm Origination Test` menu item.

7. Press `y` to start the test. The alarm origination download takes between 2 and 5 minutes to complete.

8. After the download is complete, select the `Review Latest Test Results` menu item. The result message should say `Alarm origination test successful`.

For more details on this procedure, see *Intuity Software Installation for Release 3.0*, (585-310-160).

Translations and Testing

The following sections contain translations and testing required to successfully administer the GuestWorks *server*, the Intuity Lodging Voice Messaging, and the Intuity Lodging Call Accounting. Only the most important fields are highlighted with either required or suggested translations. Unless specified otherwise, the server defaults are acceptable.

> **NOTE:**
> While you are doing these translations, occasionally save what you have done using the command **server save translation**. This could save you time retranslating if you have a power failure during installation.

Miscellaneous Translations

The following miscellaneous translations should be done before you administer the links to the GuestWorks adjuncts:

- Time of day and date on the Intuity

- Server billable features

- Dial plan on the server and the Intuity

- Class of restriction (COR) on the server

- Class of service (COS) on the server and the Intuity

- Intuity system parameters

- Trunk groups on the server

- Feature access codes on the server

- Station translations on the server

- Subscribers on the Intuity

- Attendant Backup

- Attendant console button layouts

- Backup voice terminal button layouts

- Recorded Announcements

- Emergency Access to Attendant

- Attendant Crisis Alert

- Direct Access Calling

- Trunk-to-Trunk Transfer

Time of Day and Date (Intuity)

Use the **Customer/Services Administration**, **System Management**, **UNIX Management**, **UNIX Data and Time** command to set the time and date on the Intuity.

Billable Features (Server)

Use the following screen to verify that the features paid for by the customer have been enabled. If all the customer's features have not been enabled, call the INADS group (or your COE) and have them dial in and enable the correct features.

```
display system options
                            OPTIONS

        Answer Supervision by Call Classifier? n
                     Hospitality Enhancements? y
                                     ISDN-PRI? n
                         ISDN-PRI over PACCON? n
                   Terminal Trans. Init. (TTI)? y




       (NOTE: You must logoff & login to effect the permission changes.)
```

Dial Plan (Server)

Use the following screens to administer the server dial plan based on the customer's requirements.

➤ **NOTE:**
The PMS interface supports 3-, 4-, or 5-digit extensions, but be aware that prefixed extensions do not send the entire number across the interface. Only the assigned extension number is sent.

```
change system dialplan first-digit
                           DIAL PLAN RECORD

     North American Area Code: 303
        ARS Prefix 1 Required? y


FIRST DIGIT TABLE
First                                    Length
Digit  - 1 -      - 2 -      - 3 -      - 4 -      - 5 -      - 6 -
  1:                       extension
  2:                       extension
  3:                       extension
  4:                       extension
  5:                       extension
  6:                       extension
  7: misc
  8: fac
  9: fac
  0: attd
  *:                       fac
  #:              fac
```

```
display system dialplan second-digit 7
                     SECOND DIGIT TABLE FOR DIGIT 7
SECOND DIGIT TABLE
Digit  Identification   Number of      Digit  Identification   Number of
                        Digits                                 Digits
   0: tac               2                5:                     0
   1: extension         3                6:                     0
   2: tac               3                7:                     0
   3: fac               3                8: extension           4
   4: fac               3                9: extension           4
```

Dial Plan (Intuity)

The following screen identifies the range of mailboxes that can be activated by the Intuity. This is part of the Intuity **AUDIX Administration** and must be administered to match the server's dial plan.

```
change machine                                              Page 1 of 1
                         MACHINE PROFILE
Machine Name: local       Type: local         Location: local

 Voiced Name? n                               Extension Length: 3
    Voice ID: 0                               Default Community: 1

ADDRESS RANGES
    Prefix              Start Ext.   End Ext.        Warnings
 1:                     100          799
 2:
 3:
 4:
 5:
 6:
 7:
 8:
 9:
10:
```

If you change the `Extension Length` field, you must stop and restart the voice system. To stop the voice system, use the path **Customer/Services Administration**, **System Management**, **System Control**, **Stop Voice System**. To start the voice system, use the path **Customer/Services Administration**, **System Management**, **System Control**, **Start Voice System**.

Class of Restriction (Server)

You must create several Classes of Restriction (COR) to separate features and services among the different groups of users and equipment. The COR also controls calling permissions between CORs. You can restrict one group of users from calling another group through the COR. The following is a list of these general COR groups (and the COR number used in the screen examples):

- Guest rooms (COR 1)

- Front desk and housekeeping (COR 2; same setup as COR 1)

- Office staff (COR 3; same setup as COR 1)

- Guest services (room service, kitchen, etc) (COR 4)

- Direct Access Calling procedures (COR 30)

- AUDIX voice ports and hunt groups (COR 40; same setup as COR 30)

- Netcon, processor interface, and data modules (COR 50)

- Trunk groups (each trunk group must have a unique COR) (COR 20 and COR 21)

The following screens show typical COR assignments for each of the groupings. All levels of restriction must be agreed upon by the customer.

This is an example COR for the guest rooms, front desk and housekeeping, and the office staff.

```
change restriction cor 1                                      Page   1 of   2
                          CLASS OF RESTRICTION

              COR Number: 1
        COR Description: GUEST ROOMS

                     FRL: 7                                    APLT? y
                                        Calling Party Restriction: none
                                         Called Party Restriction: none
         Time of Day Chart: 1       Forced Entry of Account Codes? n
         Priority Queuing? n
      Restriction Override: all        Facility Access Trunk Test? n
      Restricted Call List? n

            Access to MCT? y            Fully Restricted Service? n
      Category For MFC ANI: 7
         Send ANI for MFE? n
   Hear System Music on Hold? y
```

```
change restriction cor 1                                      Page   2 of   2
                          CLASS OF RESTRICTION


   CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

    0? n     12? n    24? n    36? n    48? n    60? n    72? n    84? n
    1? y     13? n    25? n    37? n    49? n    61? n    73? n    85? n
    2? y     14? n    26? n    38? n    50? n    62? n    74? n    86? n
    3? y     15? n    27? n    39? n    51? n    63? n    75? n    87? n
    4? y     16? n    28? n    40? y    52? n    64? n    76? n    88? n
    5? n     17? n    29? n    41? n    53? n    65? n    77? n    89? n
    6? n     18? n    30? n    42? n    54? n    66? n    78? n    90? n
    7? n     19? n    31? n    43? n    55? n    67? n    79? n    91? n
    8? n     20? n    32? n    44? n    56? n    68? n    80? n    92? n
    9? n     21? n    33? n    45? n    57? n    69? n    81? n    93? n
   10? n     22? n    34? n    46? n    58? n    70? n    82? n    94? n
   11? n     23? n    35? n    47? n    59? n    71? n    83? n    95? n
```

This is an example COR for the guest services.

```
change restriction cor 4                                      Page   1 of   2
                              CLASS OF RESTRICTION

              COR Number: 4
         COR Description: GUEST SERVICES

                        FRL: 3                              APLT? y
                                        Calling Party Restriction: none
                                         Called Party Restriction: none
         Time of Day Chart: 1      Forced Entry of Account Codes? n
          Priority Queuing? n
       Restriction Override: all        Facility Access Trunk Test? n
       Restricted Call List? n

             Access to MCT? y        Fully Restricted Service? n
       Category For MFC ANI: 7
         Send ANI for MFE? n
  Hear System Music on Hold? y
```

```
change restriction cor 4                                      Page   2 of   2
                              CLASS OF RESTRICTION


  CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

    0? n      12? n     24? n     36? n     48? n     60? n     72? n     84? n
    1? y      13? n     25? n     37? n     49? n     61? n     73? n     85? n
    2? y      14? n     26? n     38? n     50? n     62? n     74? n     86? n
    3? y      15? n     27? n     39? n     51? n     63? n     75? n     87? n
    4? y      16? n     28? n     40? y     52? n     64? n     76? n     88? n
    5? n      17? n     29? n     41? n     53? n     65? n     77? n     89? n
    6? n      18? n     30? n     42? n     54? n     66? n     78? n     90? n
    7? n      19? n     31? n     43? n     55? n     67? n     79? n     91? n
    8? n      20? n     32? n     44? n     56? n     68? n     80? n     92? n
    9? n      21? n     33? n     45? n     57? n     69? n     81? n     93? n
   10? n      22? n     34? n     46? n     58? n     70? n     82? n     94? n
   11? n      23? n     35? n     47? n     59? n     71? n     83? n     95? n
```

This is an example COR for the Direct Access Calling procedures, and the AUDIX voice ports and hunt groups.

```
change restriction cor 30                                    Page   1 of   2
                          CLASS OF RESTRICTION

            COR Number: 30
       COR Description: DIRECT ACCESS CALLING

                      FRL: 0                                 APLT? y
                                        Calling Party Restriction: outward
                                        Called Party Restriction: none
      Time of Day Chart: 1         Forced Entry of Account Codes? n
       Priority Queuing? n
    Restriction Override: all      Facility Access Trunk Test? n
     Restricted Call List? n

            Access to MCT? y           Fully Restricted Service? n
    Category For MFC ANI: 7
       Send ANI for MFE? n
Hear System Music on Hold? y
```

```
change restriction cor 40                                    Page   2 of   2
                          CLASS OF RESTRICTION


 CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

   0? n    12? n    24? n    36? n    48? n    60? n    72? n    84? n
   1? y    13? n    25? n    37? n    49? n    61? n    73? n    85? n
   2? y    14? n    26? n    38? n    50? n    62? n    74? n    86? n
   3? y    15? n    27? n    39? n    51? n    63? n    75? n    87? n
   4? y    16? n    28? n    40? n    52? n    64? n    76? n    88? n
   5? n    17? n    29? n    41? n    53? n    65? n    77? n    89? n
   6? n    18? n    30? n    42? n    54? n    66? n    78? n    90? n
   7? n    19? n    31? n    43? n    55? n    67? n    79? n    91? n
   8? n    20? n    32? n    44? n    56? n    68? n    80? n    92? n
   9? n    21? n    33? n    45? n    57? n    69? n    81? n    93? n
  10? n    22? n    34? n    46? n    58? n    70? n    82? n    94? n
  11? n    23? n    35? n    47? n    59? n    71? n    83? n    95? n
```

This is an example COR for the netcon, processor interface link, and data modules.

```
change restriction cor 50                                    Page   1 of   2
                             CLASS OF RESTRICTION

                COR Number: 50
           COR Description: NETCON/PROC LINK/DATA MODULES

                      FRL: 7                               APLT? y
                                       Calling Party Restriction: none
                                        Called Party Restriction: none
         Time of Day Chart: 1      Forced Entry of Account Codes? n
          Priority Queuing? n
       Restriction Override: all       Facility Access Trunk Test? n
       Restricted Call List? n

              Access to MCT? y         Fully Restricted Service? n
       Category For MFC ANI: 7
          Send ANI for MFE? n
   Hear System Music on Hold? y
```

```
change restriction cor 50                                    Page   2 of   2
                             CLASS OF RESTRICTION


 CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

   0? n    12? n    24? n    36? n    48? n    60? n    72? n    84? n
   1? n    13? n    25? n    37? n    49? n    61? n    73? n    85? n
   2? n    14? n    26? n    38? n    50? y    62? n    74? n    86? n
   3? n    15? n    27? n    39? n    51? n    63? n    75? n    87? n
   4? n    16? n    28? n    40? n    52? n    64? n    76? n    88? n
   5? n    17? n    29? n    41? n    53? n    65? n    77? n    89? n
   6? n    18? n    30? n    42? n    54? n    66? n    78? n    90? n
   7? n    19? n    31? n    43? n    55? n    67? n    79? n    91? n
   8? n    20? n    32? n    44? n    56? n    68? n    80? n    92? n
   9? n    21? n    33? n    45? n    57? n    69? n    81? n    93? n
  10? n    22? n    34? n    46? n    58? n    70? n    82? n    94? n
  11? n    23? n    35? n    47? n    59? n    71? n    83? n    95? n
```

This is an example COR for an outgoing trunk group. Each trunk group must have a unique COR.

```
change restriction cor 20                                    Page   1 of   2
                          CLASS OF RESTRICTION

             COR Number: 20
       COR Description: OUTGOING TRUNK GROUP

                     FRL: 0                              APLT? y
                                      Calling Party Restriction: outward
                                       Called Party Restriction: none
      Time of Day Chart: 1        Forced Entry of Account Codes? n
      Priority Queuing? n
    Restriction Override: all      Facility Access Trunk Test? n
    Restricted Call List? n

           Access to MCT? y            Fully Restricted Service? n
    Category For MFC ANI: 7
       Send ANI for MFE? n
Hear System Music on Hold? y
```

```
change restriction cor 20                                    Page   2 of   2
                          CLASS OF RESTRICTION


  CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

   0? n    12? n    24? n    36? n    48? n    60? n    72? n    84? n
   1? n    13? n    25? n    37? n    49? n    61? n    73? n    85? n
   2? n    14? n    26? n    38? n    50? n    62? n    74? n    86? n
   3? n    15? n    27? n    39? n    51? n    63? n    75? n    87? n
   4? n    16? n    28? n    40? n    52? n    64? n    76? n    88? n
   5? n    17? n    29? n    41? n    53? n    65? n    77? n    89? n
   6? n    18? n    30? n    42? n    54? n    66? n    78? n    90? n
   7? n    19? n    31? n    43? n    55? n    67? n    79? n    91? n
   8? n    20? y    32? n    44? n    56? n    68? n    80? n    92? n
   9? n    21? y    33? n    45? n    57? n    69? n    81? n    93? n
  10? n    22? y    34? n    46? n    58? n    70? n    82? n    94? n
  11? n    23? y    35? n    47? n    59? n    71? n    83? n    95? n
```

This is an example COR for an incoming trunk group. Each trunk group must have a unique COR.

```
change restriction cor 21                                      Page   1 of   2
                              CLASS OF RESTRICTION

                COR Number: 21
          COR Description: INCOMING TRUNK GROUP

                      FRL: 0                                    APLT? y
                                         Calling Party Restriction: none
                                          Called Party Restriction: none
          Time of Day Chart: 1         Forced Entry of Account Codes? n
         Priority Queuing? n
      Restriction Override: all         Facility Access Trunk Test? n
      Restricted Call List? n

              Access to MCT? y          Fully Restricted Service? n
      Category For MFC ANI: 7
          Send ANI for MFE? n
Hear System Music on Hold? y
```

```
change restriction cor 20                                      Page   2 of   2
                              CLASS OF RESTRICTION


CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

   0? n     12? n    24? n    36? n    48? n    60? n    72? n    84? n
   1? n     13? n    25? n    37? n    49? n    61? n    73? n    85? n
   2? n     14? n    26? n    38? n    50? n    62? n    74? n    86? n
   3? n     15? n    27? n    39? n    51? n    63? n    75? n    87? n
   4? n     16? n    28? n    40? n    52? n    64? n    76? n    88? n
   5? n     17? n    29? n    41? n    53? n    65? n    77? n    89? n
   6? n     18? n    30? y    42? n    54? n    66? n    78? n    90? n
   7? n     19? n    31? n    43? n    55? n    67? n    79? n    91? n
   8? n     20? n    32? n    44? n    56? n    68? n    80? n    92? n
   9? n     21? n    33? n    45? n    57? n    69? n    81? n    93? n
  10? n     22? n    34? n    46? n    58? n    70? n    82? n    94? n
  11? n     23? n    35? n    47? n    59? n    71? n    83? n    95? n
```

Class of Service (Server)

You must assign the Class of Service (COS) on the server. A unique COS must be assigned to each of the following groups of users and equipment types on the server:

■ Front desk and housekeeping (COS 0)

Voice terminals and attendant consoles used for check-in/check-out and Message Waiting Notification must have Console Permissions enabled in the COS. Designated stations used for housekeeping updates must have Console Permissions enabled in the COS.

■ Guest rooms (COS 1)

Guest rooms where Message Waiting Notification is used to light message lamps must have Client Room enabled in the COS.

■ Office staff (COS 2)

■ Guest services (COS 3)

■ Data modules (COS 15).

The following screen shows an example COS using the COS numbers given in the previous list. Features assigned with the COS must be approved by the customer.

```
change restriction cos                                   Page   1 of   1
                           CLASS OF SERVICE

                           0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15

    Auto Callback          y  n  y  y  n  n  n  n  n  n  n  n  n  n  n  n
    Call Fwd-All Calls     n  n  y  n  n  n  n  n  n  n  n  n  n  n  n  n
    Data Privacy           n  y  n  n  n  n  n  n  n  n  n  n  n  n  n  y
    Priority Calling       y  n  y  y  n  n  n  n  n  n  n  n  n  n  n  n
    Console Permissions    y  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n
    Off-hook Alert         n  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n
    Client Room            n  y  n  n  n  n  n  n  n  n  n  n  n  n  n  n
    Restrict Call Fwd-Off Net n y n  y  y  y  y  y  y  y  y  y  y  y  y  n
    Call Forwarding Busy/DA   n n y  n  n  n  n  n  n  n  n  n  n  n  n  n
```

> **⚠ CAUTION:**
> *Do not assign the Client Room feature to the front desk, housekeeping, office staff, and guest services COS. If assigned as a Client Room COS, the name field on the station form will not be saved in translations.*

Class of Service (Intuity)

Use the following screens to administer the Intuity COS for the guest rooms and the office staff AUDIX subscribers. To access the Intuity COS screens, use the **AUDIX Administration** path. On Page 1, the Type field must be set to **call-answer**.

```
change cos 0                                              Page 1 of 2
                        CLASS OF SERVICE


          Name: class00      COS Number: 0          Modified? y
Addressing Format: extension


                                    Login Announcement Set: System
System Multilingual is OFF      Call Answer Primary Annc. Set: System
Call Answer Language Choice? n  Call Answer Secondary Annc. Set: System


PERMISSIONS  Type: call-answer                 Announcement Control? n
      Outcalling? n          Priority Messages? n      Broadcast: none
    IMAPI Access? n    IMAPI Voice File Transfer? n          Fax? n
```

```
change cos 0                                              Page 2 of 2
                        CLASS OF SERVICE


INCOMING MAILBOX          Order: fifo          Category Order: nuo
  Retention Times (days),  New: 10       Old: 10        Unopened: 10

OUTGOING MAILBOX          Order: fifo          Category Order: unfda
 Retention Times(days),File Cab: 10      Delivered/Nondeliverable: 5


Voice Mail Message (seconds),  Maximum Length: 300  Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 120  Minimum Needed: 8

        End of Message Warning Time (seconds):

        Maximum Mailing Lists: 25    Total Entries in all Lists: 250
Mailbox Size (seconds), Maximum: 1200           Minimum Guarantee: 0
```

System Parameters (Intuity)

Use the following screens to assign the Intuity system parameters. The parameters will vary according to the customer's needs.

```
change system-parameters features                              Page 1 of 3
                        SYSTEM-PARAMETERS FEATURES

LOG-IN PARAMETERS
        Login Retries: 3            Consecutive Invalid Attempts: 18
 System Guest Password:                  Minimum Password Length: 6

PASSWORD AGING LIMITS (DAYS)
   Password Expiration Interval: 0   (0 for no password aging)
     Minimum Age Before Changes: 0
             Expiration Warning: 0   (0 for no warning)

INPUT TIME LIMITS (SECONDS)
        Normal: 60    Full Mailbox Timeout: 5    Wait (*W): 180
        Between Digits at Auto-attendent or Standalone Menu: 3  (3-12)

DISCONNECT OPTIONS
        Quick Silence Disconnect? n        Silence Limit? 30 (5-30 seconds)
```

```
change system-parameters features                              Page 2 of 3
                        SYSTEM-PARAMETERS FEATURES

MISCELLANEOUS PARAMETETERS
        Broadcast Mailbox Extension:  Consecutive Invalid Attempts: 18
           System Prime Time, Start: 08:00      End: 17:00d Length: 6
             Increment(l/s), Rewind: s      Advance: s
  Password Expiration Interval: 0   (0 for no password aging)
                 Before Changes: 0


FEATURE ACTIVATION
                Traffic Collection? y
         Name Record by Subscriber? y
         Multiple Personal Greetings? y
            End of Message Warning? y      Warning Time (seconds): 15
           Priority on Call Answer? n
               Call Answer Disable? n
              Address Before Record? n
```

There are two fields important to system security. On Page 3, the `Transfer Type` field should be set to **enhanced_cover_0**. This will restrict the voice ports from calling trunk access codes assigned to the trunk groups. Also on Page 3, the `Transfer Restriction` field should be set to **subscribers** to restrict call transfers out of AUDIX for subscribers (office staff) only and not guests

```
change system-parameters features                              Page 3 of 3
                       SYSTEM-PARAMETERS FEATURES

CALL TRANSFER OUT OF AUDIX
 Transfer Type: enhanced_cover_0           Transfer Restriction: subscribers
 Covering Extension: 195 Time, Start: 08:00      End: 17:00

ANNOUNCEMENT SETS
            System: us-eng                      Administrative:

RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY
 Incr 1: 0  days  0  hrs 5  mins      Incr 2: 0  days 0  hrs 15 mins
 Incr 3: 0  days  0  hrs 30 mins      Incr 4: 0  days 1  hrs 0  mins
 Incr 5: 0  days  2  hrs 0  mins      Incr 6: 0  days 6  hrs 0  mins
 Incr 7: 1  days  0  hrs 0  mins      Incr 8: 2  days 0  hrs 0  mins
 Incr 9: 7  days  0  hrs 0  mins      Incr10: 14 days 0  hrs 0  mins
```

Trunk Groups (Server)

Use the following screen to assign each trunk group. Each trunk group must have a different COR, enable `CDR Reports` for every trunk group, and the `Dial Access` field should be set to **n**.

```
add group trunk 1                                        Page   1 of  10
                          TRUNK GROUP

Group Number: 1                 Group Type: co         CDR Reports: y
  Group Name: Outside Call            COR: 20     TN: 1       TAC: 710
   Direction: two-way      Outgoing Display? n
 Dial Access? n                Busy Threshold: 10         Night Service:
Queue Length: 0         Country: 1             Incoming Destination: attd
   Comm Type: voice                            Digit Absorption List:
     Prefix-1? y                Trunk Flash? n        Toll Restricted? y

TRUNK PARAMETERS
          Trunk Type: ground-start
   Outgoing Dial Type: tone                           Cut-Through? n
    Trunk Termination: rc               Disconnect Timing(msec): 500

          Auto Guard? n    Call Still Held? n    Sig Bit Inversion: none
    Terminal Balanced? n                          RA Trunk Loss: 0db
                             Trunk Gain: high

 Disconnect Supervision - In? y  Out? n
 Answer Supervision Timeout: 10        Receive Answer Supervision? n
```

Feature Access Codes (Server)

The following screens show the different features that can have feature access codes assigned. Unless the customer requests a feature or a feature is needed for maintenance personnel, do not assign a feature access code to unused features.

```
change feature access-codes                                 Page   1 of   4
                          FEATURE ACCESS CODE (FAC)
          Abbreviated Dialing List1 Access Code: #1
          Abbreviated Dialing List2 Access Code: #2
          Abbreviated Dialing List3 Access Code: #3
    Abbreviated Dial - Prgm Group List Access Code: *03
                        Announcement Access Code: *26
                        Answer Back Access Code: #9

        Auto Route Selection (ARS) - Access Code 1: 9    Access Code 2: 8
                   Automatic Callback Activation: *22    Deactivation: *20
    Call Forwarding Activation Busy/DA:        All: *47   Deactivation: *48
                         Call Park Access Code: #8
                       Call Pickup Access Code: #7
                 Answer Hold-Unhold Access Code:
                  CDR Account Code Access Code:
                  Data Origination Access Code:
                      Data Privacy Access Code:
        Emergency Access to Attendant Access Code: *91
                Facility Test Calls Access Code:
                              Flash Access Code: *15
            Group Control Restrict Activation:      Deactivation:
```

```
change feature access-codes                                 Page   2 of   4
                          FEATURE ACCESS CODE (FAC)
                     Hunt Group Busy Activation:      Deactivation:
                          ISDN-PRI Access Code:
                 Last Number Dialed Access Code: #5
       Leave Word Calling Message Retrieval Lock:
     Leave Word Calling Message Retrieval Unlock:
             Leave Word Calling Send A Message: *51
             Leave Word Calling Cancel A Message: *50
                Malicious Call Trace Activation:      Deactivation:

                     Print Messages Access Code:
                   Priority Calling Access Code: *77
                       Program Access Code: #0
       Refresh Terminal Parameters Access Code:
                   Send All Calls Activation: *72    Deactivation: *70
```

```
change feature access-codes                           Page   3 of   4
                        FEATURE ACCESS CODE (FAC)
            Terminal Dial-Up Test Access Code: *31
 Terminal Translation Initialization Merge Code:          Separation Code:
                Transfer to AUDIX Access Code: *29
         Trunk Answer Any Station Access Code: #6
              User Control Restrict Activation: *27    Deactivation: *28
  Voice Coverage Message Retrieval Access Code: *35
 Voice Principal Message Retrieval Access Code: *36
```

```
change feature access-codes                           Page   4 of   4
                        FEATURE ACCESS CODE (FAC)
                         Hospitality Features
            Automatic Wakeup Call Access Code: *98
  Housekeeping Status (Client Room) Access Code: *81
  Housekeeping Status (Client Room) Access Code: *82
  Housekeeping Status (Client Room) Access Code: *83
  Housekeeping Status (Client Room) Access Code: *84
  Housekeeping Status (Client Room) Access Code:
  Housekeeping Status (Client Room) Access Code:
      Housekeeping Status (Station) Access Code:
      Housekeeping Status (Station) Access Code:
      Housekeeping Status (Station) Access Code:
      Housekeeping Status (Station) Access Code:
        Verify Wakeup Announcement Access Code: *89
                Voice Do Not Disturb Access Code: *33
```

Stations (Server)

You must assign the voice terminals for the office staff, the front desk, guest room services, and guest rooms. Use the following screens to administer the office staff and front desk voice terminals. Depending on the model of the voice terminal, the screens show different fields. This example shows the model 8434 used as an attendant backup voice terminal.

```
add station 195                                          Page   1 of   4
                             STATION
Extension: 195            BCC: 0                        TN: 1
      Type: 8434D               Lock Messages? n        COR: 2
      Port: 01A0201             Security Code:           COS: 0
      Name: FRONT DESK          Coverage Path:
FEATURE OPTIONS
          LWC Reception: none         Auto Select Any Idle Appearance? n
          LWC Activation? n                Coverage Msg Retrieval? y
            CDR Privacy? n                            Auto Answer: none
   Redirect Notification? y                       Data Restriction? n
Per Button Ring Control? n              Idle Appearance Preference? n
  Bridged Call Alerting? y          Personalized Ringing Pattern: 1
 Active Station Ringing: single          Restrict Last Appearance? y
            Data Module? n                     Mute Button Enabled? y
          Speakerphone: 2-way                   Expansion Module? n
                                      Audible Message Waiting? n


      Display Language: english              Disp Client Redir? n
      Message Lamp Ext: 195          Select Last Used Appearance? n
```

```
add station 195                                          Page   2 of   4
                             STATION
 SITE DATA
       Room:                              Headset? n
       Jack:                              Speaker? n
      Cable:                             Mounting: d
      Floor:                          Cord Length: 0
   Building:                            Set Color:



ABBREVIATED DIALING
    List1: personal 1        List2:                List3: system


BUTTON ASSIGNMENTS
 1: call-appr                    6: autodial   Number:
 2: call-appr                    7: autodial   Number:
 3: call-appr                    8: autodial   Number:
 4: call-appr                    9: autodial   Number:
 5: last-numb                   10: int-aut-an
```

```
add station 195                                            Page   3 of   4
                                  STATION

FEATURE BUTTON ASSIGNMENTS

 1: atd-qcalls                        13: pms-alarm
 2: atd-qtime                         14: cdr1-alrm
 3: night-serv                        15: aut-msg-wt Ext: 399
 4: aut-msg-wt Ext: 699               16: autodial    Number: *271
 5: auto-wkup                         17: autodial    Number: *281
 6: ext-dn-dst                        18: next
 7: check-in                          19: delete-msg
 8: check-out                         20:
 9: mwn-act                           21:
10: mwn-deact                         22:
11:                                   23:
12: autodial   Number: #6            24:
```

Use the following screens to add guest room telephones. Once you have created one telephone, use the **duplicate** command to create the rest of the guest rooms since all rooms should have the same features, COS, and COR. The `Message Waiting Indicator` is hardware dependent and must match the type of message waiting lamps on the guest telephones. This can vary from room to room.

```
add station 107                                            Page   1 of   2
                                  STATION
Extension: 107            BCC: 0                         TN: 1
     Type: 2500                  Lock Messages? n        COR: 1
     Port: 01A0301               Security Code:          COS: 1
     Name: GUEST ROOM            Coverage Path: 1        Tests? y
FEATURE OPTIONS
          LWC Reception: audix
          LWC Activation? n                  Coverage Msg Retrieval? n
            CDR Privacy? n                              Auto Answer: none
   Redirect Notification? y                       Data Restriction? y
Per Button Ring Control? n              Call Waiting Indication? n
   Bridged Call Alerting? n         Att. Call Waiting Indication? n
      Off Premise Station? n            Distinctive Audible Alert? n
        Switchhook Flash? y         Message Waiting Indicator: neon
     Ignore Rotary Digits? n                 Adjunct Supervision? y
                                        Audible Message Waiting? n


     Message Lamp Ext: 107
```

On Page 2, enter the room number in the `Room` field and enter **call-appr** in the `Line Appearance` field. Also, you may want to populate an Abbreviated Dialing system list to be used for one-button access to guest services.

```
add station 107                                        Page   2 of   2
                              STATION
 SITE DATA
     Room: 107                               Headset? n
     Jack:                                   Speaker? n
    Cable:                                  Mounting: d
    Floor:                               Cord Length: 0
 Building:                                 Set Color:


ABBREVIATED DIALING
    List1: System   1         List2:                   List3:

HOT LINE DESTINATION
       Abbreviated Dialing List Number (From above 1, 2 or 3):
                                           Dial Code:

    Line Appearance: call-appr
```

After you have administered the guest rooms, you can use the **list station** command to display the stations.

Subscribers (Intuity)

The following screens show an example of how office staff subscribers should be administered on the Intuity. Access these screens using the **AUDIX Administration** command.

```
add subscriber 150                                            Page 1 of 2
                            SUBSCRIBER

           Name: Jean Collins                       Locked? n
      Extension: 150                               Password:
            COS: class00                      Miscellaneous:
  Switch Number: 1                      Covering Extension: 161
   Community ID: 1                       Broadcast Mailbox? n
  Secondary Ext:
```

On Page 2, you must set the `Type` field to **call-answer**.

```
add subscriber 150                                            Page 2 of 2
                     SUBSCRIBER CLASS OF SERVICE PARAMETERS
Addressing Format: extension
                                       Login Announcement Set: System
System Multilingual is OFF        Call Answer Primary Annc. Set: System
Call Answer Language Choice? n  Call Answer Secondary Annc. Set: System

PERMISSIONS  Type: call-answer                    Announcement Control? n
      Outcalling? n           Priority Messages? n        Broadcast: none
     IMAPI Access? n    IMAPI Voice File Transfer? n           Fax? n

INCOMING MAILBOX           Order: fifo           Category Order: nuo
  Retention Times (days),   New: 10        Old: 10          Unopened: 10
OUTGOING MAILBOX           Order: fifo           Category Order: unfda
Retention Times(days), File Cab: 10      Delivered/Nondeliverable: 5

Voice Mail Message (seconds),  Maximum Length: 300  Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 120  Minimum Needed: 8
        End of Message Warning Time (seconds):
           Maximum Mailing Lists: 25     Total Entries in all Lists: 250
Mailbox Size (seconds), Maximum: 1200            Minimum Guarantee: 0
```

> **NOTE:**
> Mailboxes are created automatically for the guest rooms (when the Intuity-to-PMS link comes up) and do not require subscriber administration.

Attendant Backup (Server)

You must enable TAAS Pickup and Audible Alerting using the following screen.

```
change system guestworks-options                           Page   1 of   1
                          GUESTWORKS OPTIONS



        Day Mode TAAS Pickup & Backup Station Audible Alerting? y
                        Controlled Toll Restriction replaces: nothing
```

In addition, you must assign a ⎡Queue Calls⎤ button to the backup voice terminals.
See Page 66 for more information.

Use the following screen to administer the Attendant Backup parameters. The
`Calls in Queue Warning` level should be set to **1** if the customer uses the
backup voice terminals for most call handling. If the customer uses the attendant
console, you can set this level to a higher threshold. The `Ext Alert Port
(TAAS)` field must have an analog circuit equipment location administered even if
you do not have external ringing equipment connected to the circuit. This is
required to allow the Attendant Backup feature to work properly.

```
change system console-parameters                            Page   1 of   3
                        CONSOLE PARAMETERS
          Attendant Group Name: OPERATOR
                     COS: 1                                       COR: 1
      Calls in Queue Warning: 1                    Attendant Lockout? y
       Ext Alert Port (TAAS): 01A1216

                                             Night Service Act. Ext.: 195

                                                 Alternate FRL Station:
                                 DID-LDN Only to LDN Night Ext? n
TIMING
  Time Reminder on Hold (sec): 30         Return Call Timeout (sec): 30
  Time in Queue Warning (sec): 15
  INCOMING CALL REMINDERS
    No Answer Timeout (sec):                      Alerting (sec):
                        Secondary Alert on Held Reminder Calls? y
ABBREVIATED DIALING
    List1:                 List2:                  List3: system

                        COMMON SHARED EXTENSIONS
            Starting Extension: 670          Count: 3
```

Attendant Console Recommended Button Layout (Server)

The attendant console feature buttons are assigned using the **change attendant 1** command. The recommended button layout differs depending on whether or not the property has voice messaging, a PMS, or call accounting. All of the buttons shown in these diagrams are included with the attendant console.

⇒ **NOTE:**
Even though the button layout between the Model 302B and Model 302C attendant consoles differ, you still have 8 display buttons and 24 feature buttons that should be administered. The examples in this section are based on the punch-out button labels that come with the 302B console. You must still administer the same buttons for the 302C console, but the button label sheets must be typed-up on-site.

Figure 15 shows the recommended button layout for the eight display buttons.

| Normal Mode | Inspect Mode | Cover Msg Rt | Next | Delete | Call | Date Time | Timer |

Figure 15. Console Buttons for Display Features

The display buttons are administered with the following button types:

- **normal**
- **inspect**
- **cov-msg-rt**
- **next**
- **delete-msg**
- **call-disp**
- **date-time**
- **timer**

Figure 16 shows the recommended button layout if you have voice messaging. Do not translate the PMS Alarm or CAS Alarm buttons if that equipment is not installed. Any unused buttons can be customized based on customer needs.

Forced Release	PMS Alarm	CAS Alarm	Failed Wakeup	Night	Pos Busy
Auto Wakeup	DND Ext	Integ Dirctry	Trunk ID	Crisis Alert	Queue Time
Check In	Check Out	Occupd Rooms	Maid Status		
Split		Voice Mail	VM Passwd		Hold
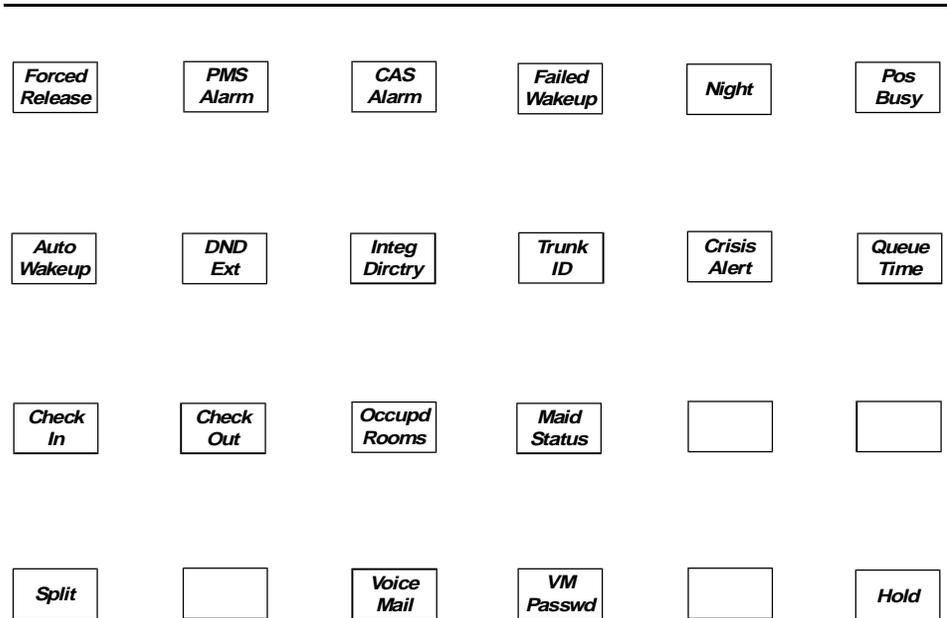
Figure 16. Console Buttons with Voice Messaging

Figure 17 shows the recommended button layout if you do not have voice messaging. Do not translate the PMS Alarm or CAS Alarm buttons if that equipment is not installed. Any unused buttons can be customized based on customer needs.
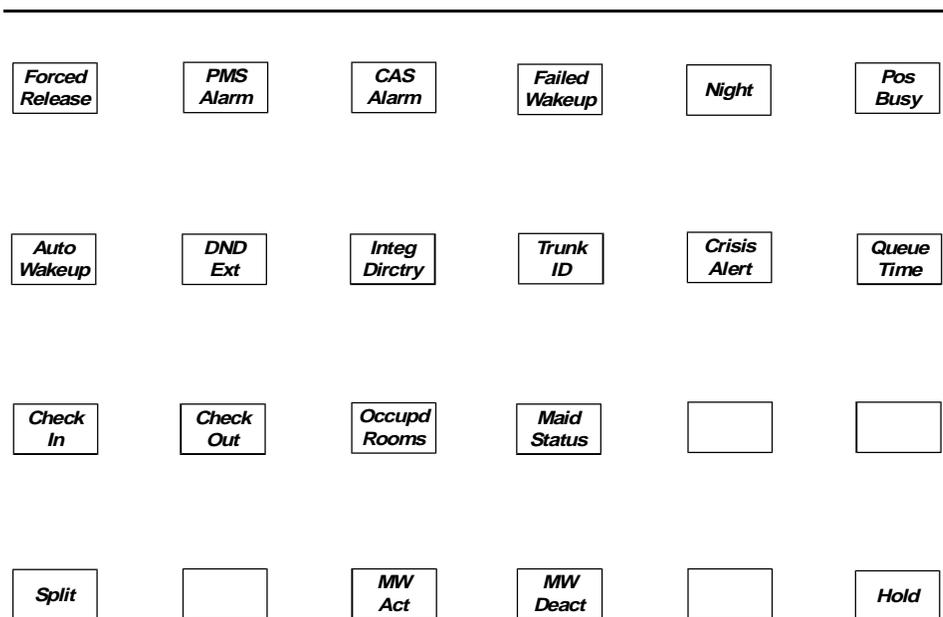
Figure 17. Console Buttons without Voice Messaging

The buttons shown in Figure 16 and Figure 17 are administered using the following button types:

- **forced-rel** (this button assignment cannot be changed)

- **pms-alarm**

- **cdr1-alrm**

- **aut-msg-wt** (administer the extension where failed wakeups are reported)

- **night-serv**

- **pos-busy**

- **auto-wkup**

- **ext-dn-dst**

- **directory**

- **trk-id**

- **crss-alert**

- **atd-qtime**

- **check-in**

- **check-out**

- **occ-rooms**

- **maid-stat**

- **split** (this button assignment cannot be changed)

- **busy-ind** or **abrv-dial** (with the voice mail extension programmed)

- **busy-ind** or **abrv-dial** (with the master voice mail password programmed)

- **mwn-act**

- **mwn-deact**

- **hold**

There are other buttons you may want to add to the attendant console. If preprinted labels are not available for these features, you must create them on-site. These other buttons include the following:

- Controlled Restrictions (assigned as an Abbreviated Dialing button, **abrv-dial**; the Abbreviated Dialing button emulates dialing the feature access code followed by the desired restriction code, such as Outward Restriction)

  For example, if the User Controlled Restriction Activate feature access code is *27, assign an Abbreviated Dialing button that dials *271. This automatically dials the feature access code and the code (1) for Outward Restriction. All the customer has to do now is enter the room number where they want the restriction. Another button can be assigned for the deactivate code.

- Automatic Wakeup printer alarm (assigned as **pr-awu-alm**)

- PMS printer alarm (assigned as **pr-pms-alm**)

- System printer alarm (assigned as **pr-sys-alm**)

Backup Voice Terminal Recommended
Button Layouts (Server)

The voice terminals used for the Attendant Backup feature must have most of hospitality feature buttons. These are assigned using the command **change station XXXX**, where the **XXXX** is the extension number. The following is a list of the recommended feature buttons:

- Attendant Queue Calls (**atd-qcalls**) (this button is required for the Attendant Backup feature)

- Attendant Call Pickup (this is an **abrv-dial** button that is programmed with the TAAS feature access code)

- Attendant time in queue (**atd-qtime**)

- Do Not Disturb - Extension (**ext-dn-dist**)

- Automatic Wakeup (**auto-wkup**)

- Night Service (**night-serv**) (only one backup voice terminal can have a Night Service button)

- Ringer Cutoff (**ringer-off**)

- Check-In (**check-in**)

- Check-Out (**check-out**)

- Busy Indication for the attendant console extension and any other backup voice terminals (**busy-ind**)

- PMS Alarm (**pms-alarm**)

- CAS Alarm (**cdr1-alarm**)

In addition, make sure that the backup voice terminal's class of service has console permissions assigned (**change restriction cos**).

Figure 18, Figure 19, and Figure 20 show a typical setup if you had three voice terminals used as backups to the attendant console. The recommended primary backup voice terminal is the model 8434. The second and third backup voice terminals could be a model 8410. In this example, actual extension numbers are not given. Extension 1 represents the published front desk telephone number. Extensions 2 and 3 are nonpublished numbers known only to the hotel office staff. In this example, there are call appearances or bridged appearances of Extension 1 on all voice terminals, plus each voice terminal has at least one other extension they can access as needed. With this arrangement, it makes it easy for front desk staff to answer calls at one voice terminal, put the call on hold, and pick up the call from another voice terminal.

Extension 1 (bridged app)	Extension 2 (call app)
Extension 1 (bridged app)	Extension 2 (call app)
Extension 1 (bridged app)	Extension 2 (call app)
Extension 1 (bridged app)	Attendant Queue Calls
Auto Wakeup	Attendant Call Pickup

Do Not Disturb	PMS Alarm
Extension 3 (bridged app)	CAS Alarm
Extension 3 (bridged app)	Failed Wakeup
Extension 3 (bridged app)	Next
	Delete
	Check-In
	Check-Out
	MW Act
	MW Deact
	Night
	Attendant Busy

Figure 18. First Backup Button Layout

Extension 1 (call app)	Extension 2 (bridged app)
Extension 1 (call app)	Extension 2 (bridged app)
Extension 1 (call app)	Extension 2 (bridged app)
Extension 1 (call app)	Attendant Queue Calls
Auto Wakeup	Attendant Call Pickup

Figure 19. Second Backup Button Layout

Extension 1 (bridged app)	Extension 3 (call app)
Extension 1 (bridged app)	Extension 3 (call app)
Extension 1 (bridged app)	Extension 3 (call app)
Extension 1 (bridged app)	Attendant Queue Calls
Auto Wakeup	Attendant Call Pickup

Figure 20. Third Backup Button Layout

Recorded Announcements (Server)

Use the following screen to assign extension numbers to be used for recorded announcement numbers. These extensions must be in the dialing plan but are not used for regular extensions.

```
change feature announcements                              Page   1 of   8
                         ANNOUNCEMENTS/AUDIO SOURCES
     Ext.   Type      COR  TN  Name          Queue Q-Len Prot? Rate Port
 1: 380     integrated 1   1   Wakeup          n   N/A    n    32   01A14
 2: 381     integrated 1   1   1st Auto Atnd   n   N/A    n    32   01A14
 3: 382     integrated 1   1   Dial Extension  n   N/A    n    32   01A14
 4: 383     integrated 1   1   Directory       n   N/A    n    32   01A14
 5:                    1   1                   n
 6:                    1   1                   n
 7:                    1   1                   n
 8:                    1   1                   n
 9:                    1   1                   n
10:                    1   1                   n
11:                    1   1                   n
12:                    1   1                   n
13:                    1   1                   n
14:                    1   1                   n
15:                    1   1                   n
16:                    1   1                   n
```

Once you have designated which extensions will be used for recorded announcements, use the following procedures to record and test the announcements. It is recommended that you have a hotel employee record the announcements so the same person can be used for later changes or additions.

To record a message, do the following:

1. Go off-hook at a voice terminal and dial the Announcement feature access code _____.

2. Dial the extension number of the announcement you need to record.

3. Press ① and record after the tone. Hang up, press Drop, or press the switchhook when finished.

4. Go off-hook and dial the Announcement feature access code _____.

5. Dial the extension number of the announcement you just recorded.

6. Press ② to listen to the recording.

   If you need to re-record the message, repeat Steps 3 through 6.

7. If the message is satisfactory, hang up and repeat this procedure to record the rest of the messages.

Emergency Access to Attendant (Server)

Use the following screen to administer parameters for the Emergency Access to Attendant feature.

```
change system feature-parameters                         Page   3 of   6
                    FEATURE-RELATED SYSTEM PARAMETERS

                 Reserved Slots for Attendant Priority Queue: 5
                                   Time before Off-hook Alert: 10
                        Emergency Access Redirection Extension:

           Number of Emergency Calls Allowed in Attendant Queue: 5

                                            Call Pickup Alerting? n
                 Deluxe Paging and Call Park Timeout to Originator? y

    Controlled Outward Restriction Intercept Treatment: attendant
   Controlled Termination Restriction (Do Not Disturb): attendant
            Controlled Station to Station Restriction: attendant

  AUTHORIZATION CODE PARAMETERS        Authorization Codes Enabled? n
```

Enter a delay time value in the `Time before Off-hook Alert` field, a backup extension in the `Emergency Access Redirection Extension` field, and a value in the `Number of Emergency Calls Allowed in Attendant Queue` field. You must also administer the feature access code (see Page 55) and the Off-Hook Alert option for the COS (see Page 51). If the off-hook alert option is enabled, users in that COS will automatically place emergency calls to the attendant if they leave their telephones off-hook. Consult the customer about this option.

Attendant Crisis Alert

To ensure that the Attendant Crisis Alert feature operates properly, you must administer ARS patterns to accept any combination of digits that guests could possibly dial while trying to dial the emergency service agency, and route the call to the correct location. For example, some guests might dial 9 (for an outside line) and then 911. Other guests may only dial 911. Without the correct routing patterns, the call will not go through. These screens show two examples of how this routing can be administered.

Assign a routing pattern and the **alrt** Call Type to the desired emergency service access code. For example, if your emergency service access code is 911, assign the 911 digit string to a routing pattern and assign it the **alrt** Call Type. This takes care of the condition when the guest dials 9 (for local access) and then 911. If a guest only dials 911, you also want the call to route to the emergency service agency. You must assign a dialed string of 11 with a different routing pattern that removes the dialed digits 11 and inserts the dialed digit string 911. The following screens show these two examples administered as part of the ARS Digit Analysis Table.

```
change network ars analysis 9                           Page   1 of   2
                    ARS DIGIT ANALYSIS TABLE
                 Partitioned Group Number:  1      Percent Full:   6

      Dialed    Total Rte Call Nd ANI    Dialed    Total Rte Call Nd ANI
      String    Mn Mx Pat Type Num Rq    String    Mn Mx Pat Type Num Rq
911             3  3  5   alrt     n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
```

```
change network ars analysis 1                           Page   1 of   2
                    ARS DIGIT ANALYSIS TABLE
                 Partitioned Group Number:  2      Percent Full:   6

      Dialed    Total Rte Call Nd ANI    Dialed    Total Rte Call Nd ANI
      String    Mn Mx Pat Type Num Rq    String    Mn Mx Pat Type Num Rq
11              2  2  6   alrt     n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
                                   n                                    n
```

Use the following screens to assign a routing pattern for the emergency service access code. In this first example, Preference 1 of Pattern 5 is used when guests dial 9911 (9 for the ARS access code, and 911 for the emergency service agency).

```
change network route-pattern 5                                Page   1 of   1
                        Pattern Number: 5

   Grp.  FRL NPA Pfx Hop Toll No. Del Inserted                         IXC
   No.            Mrk Lmt List Digits  Digits
1: 5      7
2:
3:
4:
5:
6:


     BCC VALUE    TSC  CA-TSC      ITC   BCIE  Service/Feature        Numbering
     0 1 2 3 4 W       Request                                        Format
1: y y y y y n   n                 rest
2: y y y y y n   n                 rest
3: y y y y y n   n                 rest
4: y y y y y n   n                 rest
5: y y y y y n   n                 rest
6: y y y y y n   n                 rest
```

In this second example, Preference 1 of Pattern 6 is used when guests dial 911. Pattern 6 deletes the two digits dialed after the ARS access code (11), and inserts the correct digit string (911).

```
change network route-pattern 6                                Page   1 of   1
                        Pattern Number: 6

   Grp.  FRL NPA Pfx Hop Toll No. Del Inserted                         IXC
   No.            Mrk Lmt List Digits  Digits
1: 6      7                          2   911
2:
3:
4:
5:
6:


     BCC VALUE    TSC  CA-TSC      ITC   BCIE  Service/Feature        Numbering
     0 1 2 3 4 W       Request                                        Format
1: y y y y y n   n                 rest
2: y y y y y n   n                 rest
3: y y y y y n   n                 rest
4: y y y y y n   n                 rest
5: y y y y y n   n                 rest
6: y y y y y n   n                 rest
```

Direct Access Calling (Server)

⇒ **NOTE:**
If you use a Direct Access Calling procedure to route calls to a location outside of your hotel, the COR of the Direct Access procedure must route using its own ARS restricted partition to prevent toll fraud, and the FRL should be set to 0.

The Direct Access Calling feature is used to set up an auto-attendant for incoming calls to the hotel. Coordinate this administration with your customer. You will need to record announcements for this feature (see Page 69).

You must first assign a direct access number using the **add feature direct-access number XXXX** command. The extension number **XXXX** is an unused extension on the server. You can have up to four direct access numbers. One of the numbers is usually the published telephone number for the hotel. A second number could be used by hotel guests to provide a menu of information about hotel services and events. After you add a number, you can later change the number if needed.

The next step is to create the procedure used by callers to access different numbers at the hotel. You can assign up to four procedures that define how calls will be handled as users select the different prompts. The following example shows a Direct Access procedure.

```
change feature direct-access procedure 1                    Page   1 of   2
                          DIRECT ACCESS PROCEDURE

Procedure: 1                    Name auto-attd-1


01 wait-time    2   secs hearing ringback
02 collect      1   digits after announcement 381
03
04 route-to     number 0                  with cov n if digit        = 0
05 route-to     number 105                with cov n if digit        = 1
06 goto         step   12  if digits         =     2
07 route-to     number 699                with cov n if digit        = 3
08 goto         step   20  if digits         =     4
09 goto         step   16  if digits         =     5
10 route-to     number 0                  with cov n if unconditionally
```

```
change feature direct-access procedure 1                    Page   2 of   2
                            DIRECT ACCESS PROCEDURE


12 collect      3  digits after announcement 382
13 route-to     digits with coverage y
14 route-to     number 0               with cov n if unconditionally
15
16 goto         step  2   if unconditionally
17
18
19
20 collect      3  digits after announcement 383
21 goto         step  13  if unconditionally
```

The procedure above does the following:

1. When a customer calls the hotel, they receive ringback for 2 seconds.

2. Announcement 381 plays. This announcement asks them to do one of the
    following:

    ■   Press ⓪ or wait if they want the front desk; if they press ⓪ or wait
        for the timeout, they are routed to the front desk.

    ■   Press ① if they want the reservation desk; if they press ①, they are
        routed to extension 105, which is the reservations desk.

    ■   Press ② if they know the guest room extension; if they press ②,
        they are routed to announcement 382, which tells them to dial the
        guest room extension.

    ■   Press ③ if they want to retrieve their voice messages; if they press
        ③, the call is routed to the voice messaging system.

    ■   Press ④ if they know the department they wish to access (such as
        catering); if they press ④, they are routed to announcement 383,
        which gives them a listing of several extensions at the hotel that they
        can dial directly.

    ■   Press ⑤ to start over again; if they press ⑤, the caller hears
        announcement 381, which repeats all of the options.

    ■   If the caller dials anything else, the call is routed to the front desk.

Trunk-to-Trunk Transfer

Use the following screen to enable Trunk-to-Trunk Transfer only if it is requested by the customer. This feature is normally disabled.

If Trunk-to-Trunk Transfer is enabled, calls made to guest rooms can be transferred outside of the hotel and toll charges may lost for some toll calls.

```
change system feature-parameters                          Page   1 of   6
                   FEATURE-RELATED SYSTEM PARAMETERS
                          Trunk-to-Trunk Transfer: none
Coverage Subsequent Redirection/CFWD No Answer Interval: 2
          Coverage - Caller Response Interval (seconds): 4
                       Keep Held SBA at Coverage Point? y
Automatic Callback - No Answer Timeout Interval (rings): 3
                   Call Park Timeout Interval (minutes): 10
     Off-Premises Tone Detect Timeout Interval (seconds): 20
                               ARS Dial Tone Required? y
                               Music/Tone on Hold: music  Port: 01B1101
          Music (or Silence) on Transferred Trunk Calls? no
                    DID/Tie/ISDN Intercept Treatment: attd
             Messaging Service Adjunct (MSA) Connected? n
 Internal Automatic Answer for Attendant Extended Calls? n
               Automatic Circuit Assurance (ACA) Enabled? n



         Abbreviated Dial Programming by Assigned Lists? n
   Auto Abbreviated/Delayed Transition Interval (rings): 2
```

Server-to-Intuity Translations

The following translations and tests must be done to administer the server-to-Intuity connections:

- PI link

- Voice ports used to call in for messages

- Hunt groups for the voice ports

- Test the server-to-Intuity link and the voice ports

- Coverage paths to route calls to AUDIX.

PI Link (Server)

The following screens are used to administer the link between the server and the Intuity for administrative voice messaging.

Use this screen on the server to administer the data module parameters for the link. For this connection, the data modules are integrated into the TN765 PI board. The Name you administer here must match on the Interface Links screen.

```
add data-module 7991                                        Page   1 of   1
                            DATA MODULE

  Data Extension: 7991
            Type: procr-intf        COS: 15      Maintenance Extension: 7995
Physical Channel: 01                COR: 50
            Name: intuity            TN: 1

ABBREVIATED DIALING
  List1:

SPECIAL DIALING OPTION:


ASSIGNED MEMBER ( Station with a data extension button for this data module )

        Ext     Name
      1:
```

The Processor Channel screen on the server must be administered as shown. Use channel **59**, set the application type to **audix**, and set the `Machine-ID` to **1**.

```
change maintenance communication-interface processor-channels   Page   4 of   4
                       PROCESSOR CHANNEL ASSIGNMENT
          Proc            Interface               Remote
          Chan  Appl.   Link  Chan  Priority  Proc Chan Machine-ID
           49:
           50:
           51:
           52:
           53:
           54:
           55:
           56:
           57:
           58:
           59:  audix    1     1       h          1          1
           60:
           61:
           62:
           63:
           64:
```

You must assign all four processor interface channels. The following table is an example of how you can administer the processor interface channels (your extensions will differ):

Data Extension	Physical Channel	Maintenance Extension
7991	01	7995
7992	02	7996
7993	03	7997
7994	04	7998

The interface link on the server must be administered as shown in this screen. The name in the `Identification` field must match the Data Module screen, the `Connected to` field must be set to **DCE**, and the `Clocking` field must be set to **internal**.

```
change maintenance communication-interface links

                        INTERFACE LINKS

                Est   PI              Destination    DTE/
   Link  Enable Conn  Ext    Prot  Digits     Brd   DCE    Identification
   1:      y     y    7991   BX25  eia              DTE    intuity
   2:      n     n    7992   BX25                   DCE
   3:      n     n    7993   BX25                   DTE
   4:      n     n    7994   BX25                   DTE
   5:      n     n           BX25                   DTE
   6:      n     n           BX25                   DTE
   7:      n     n           BX25                   DTE
   8:      n     n           BX25                   DTE


  Link 1 [eia] - Connected to : DCE    Clocking : internal
```

Processor Interface Link (Intuity)

Using the **Switch Interface Administration** command on the Intuity, administer the link to the server using the following screen. You must assign `Logical Channel` to **1** and `Switch Port` to **59**.

```
+----------------------------------------------------------------+
+                 Switch Interface Administration                +
+----------------------------------------------------------------+
|Switch Link Type: DCIU          Switch Release: System 75 type  |
|Extension Length: 3                                             |
|Host Switch Number: 1                                          |
|AUDIX Number: 1                                                |
|              HOST SWITCH LINK ASSIGNMENTS                      |
|       AUDIX Port                        AUDIX Port             |
| Switch Logical Switch           Switch Logical Switch          |
| Number Channel Port             Number Channel Port            |
|   1      1     59                  2                           |
|   3                                4                           |
|   5                                6                           |
|   7                                8                           |
|   9                               10                           |
|  11                               12                           |
|  13                               14                           |
|  15                               16                           |
|  17                               18                           |
|  19                               20                           |
+----------------------------------------------------------------+
```

Voice Ports (Server)

Use these screens to administer the voice ports on the server that are used by guests and administrative users to access their messages. On Page 1, assign the following fields as shown:

- `Extension` — The extension must be in the dial plan but not assigned for any other purpose.

- `Type` — Enter **2500** for the station type.

- `Port` — Each TN791 supports 16 analog voice connections. When making cross-connects for voice messaging, skip every other port to spread out the voice messaging traffic (that is, 0, 2, 4, 6, and so on); do not connect the voice ports in a contiguous fashion (that is, 0, 1, 2, and so on).

- `Name` — Name the first port **AUDIX 1**, and then increment the number for each subsequent port (**AUDIX 2**, **AUDIX 3**, and so on).

- `LWC Reception` — This must be set to **audix**.

- `COR` — Use the same COR for the voice ports that you use for the hunt groups. This COR should have the FRL set to 0 and should not allow access to trunk group CORs.

- `COS` — Use a COS that allows data privacy.

- `Switchhook Flash` — This must be set to **y**.

```
add station 720                                           Page   1 of   2
                              STATION
Extension: 720         BCC: 0                          TN: 1
     Type: 2500              Lock Messages? n          COR: 40
     Port: 01A0901          Security Code:             COS: 5
     Name: AUDIX 1          Coverage Path:         Tests? y
FEATURE OPTIONS
         LWC Reception: audix
         LWC Activation? n                  Coverage Msg Retrieval? n
           CDR Privacy? n                             Auto Answer: none
   Redirect Notification? n                        Data Restriction? n
 Per Button Ring Control? n                    Call Waiting Indication? n
   Bridged Call Alerting? n            Att. Call Waiting Indication? n
      Off Premise Station? n              Distinctive Audible Alert? n
        Switchhook Flash? y                  Message Waiting Indicator:
     Ignore Rotary Digits? n                   Adjunct Supervision? y
```

On Page 2, set the `Line Appearance` field to **call-appr**.

```
add station 720                                          Page   2 of   2
                               STATION
 SITE DATA
      Room:                                  Headset? n
      Jack:                                  Speaker? n
     Cable:                                  Mounting: d
     Floor:                               Cord Length: 0
  Building:                                 Set Color:



 ABBREVIATED DIALING
    List1:                   List2:                   List3:

 HOT LINE DESTINATION
       Abbreviated Dialing List Number (From above 1, 2 or 3):
                                               Dial Code:


    Line Appearance: call-appr
```

After you assign the first port, use the **duplicate** command to assign the rest of the ports. You will have 4, 6, 8, 10, or 12 ports.

Voice Ports (Intuity)

You must assign the voice port extension numbers to each activated voice port. Use the **Voice System Administration**, **Voice Equipment** command. For each channel (0-5) you must assign an extension number. The channel state should normally be `Inserv` (in-service), but it could be `foos` (facility out-of-service) or `manoos` (manually out-of-service).

```
+------------------------------------------------------------------------------+
+                            Voice Equipment                                   +
+------------------------------------------------------------------------------+
|                                                                              |
| Card  0 is IVC6   O.S.Index:  0         Function: TipRing                     |
|                   State: Inserv                                              |
| CHN CD.PT STATE    STATE-CHNG-TIME   SERVICE-NAME PHONE    GROUP     TYPE      |
| 0    0.0  Inserv  Mar 20 18:49:25   *DNIS_SVC    720       2         IVC6      |
| 1    0.1  Inserv  Mar 20 18:49:25   *DNIS_SVC    721       2         IVC6      |
| 2    0.2  Inserv  Mar 20 18:49:25   *DNIS_SVC    722       2         IVC6      |
| 3    0.3  Inserv  Mar 20 18:49:25   *DNIS_SVC    723       2         IVC6      |
| 4    0.4  Inserv  Mar 20 18:49:25   *DNIS_SVC    724       2         IVC6      |
| 5    0.5  Inserv  Mar 20 18:49:25   *DNIS_SVC    725       2         IVC6      |
+------------------------------------------------------------------------------+
```

Voice Port Hunt Groups (Server)

The following screens contain server administration for AUDIX voice port hunt groups. The first set of screens show the hunt group used by the office staff when they call for their messages. The second set of screens show the hunt group used by the hotel guests when they call for their messages.

On Page 1, assign a `Group Extension` and `Group Name`. The `Group Type` must be set to **ucd**, the `COR` should match the one used for the AUDIX voice ports, and the `Queue Length` must equal the number of installed voice ports.

```
add group hunt 1                                          Page    1 of    7
                              HUNT GROUP

    Group Number: 1            Group Extension: 699    Group Type: ucd
     Group Name: AUDIX
          Queue? y
   Security Code:        Night Service Destination:          COR: 40
 ISDN Caller Disp:                   Coverage Path:           TN: 1




          Queue Length: 6
 Calls Warning Threshold:        Calls Warning Port:
  Time Warning Threshold:         Time Warning Port:
```

On Page 2, set the `Message Center` field to **audix**.

```
add group hunt 1                                          Page    2 of    7
                              HUNT GROUP

            Message Center: audix

             LWC Reception: none



 First Announcement Extension:          First Announcement Delay (sec):
```

On Page 3, assign each extension in the correct hunting order. The name field is populated after you add the list of extensions and redisplay the hunt group.

```
add group hunt 1                                            Page   3 of   7
                             HUNT GROUP
          Group Number: 1    Group Extension: 699       Group Type: ucd
  Member Range Allowed: 1 - 200         Administered Members (min/max): 1  /6
                                        Total Administered Members: 6
GROUP MEMBER ASSIGNMENTS
    Ext     Name            Ext    Name                Ext    Name
 1: 720    AUDIX 1       14:                        27:
 2: 721    AUDIX 2       15:                        28:
 3: 722    AUDIX 3       16:                        29:
 4: 723    AUDIX 4       17:                        30:
 5: 724    AUDIX 5       18:                        31:
 6: 725    AUDIX 6       19:                        32:
 7:                      20:                        33:
 8:                      21:                        34:
 9:                      22:                        35:
10:                      23:                        36:
11:                      24:                        37:
12:                      25:                        38:
13:                      26:                        39:
                                                    40:

  At End of Member List
```

Services to Phone Number Mapping (Intuity)

The following screen shows where you must associate the extension numbers used to access voice mail messages to the services the extensions provide. In the examples shown in this section, extension 699 is used by the office staff and extension 710 is used by the guests.

Use the **Voice System Administration**, **Voice Equipment** command to access the voice equipment screen. Once there, press the CHG-KEYS function key, followed by the ASSIGN function key. Then you must select the **Services to Called Numbers** option. This displays the Assign Service to Called Number screen. Your administration should look similar to this screen.

```
+----------------------------------------+
+      Assign Service to Called Number    +
+----------------------------------------+
|  SERVICE NAME      CALLED NUMBER        |
|  AUDIX             699                  |
|  AUDIX+ldg         ANY                  |
|  lodging           710                  |
|                                         |
|                                         |
|                                         |
|                                         |
|                                         |
+----------------------------------------+
```

Guest Message Retrieval

The way guests retrieve their messages is to call an extension that has Call Coverage to the AUDIX hunt group. This is done using a standard station line that covers to the hunt group.

Use the following screen to add a station extension that is used only for accessing the AUDIX voice messages. The `Type` field must be **2500** and the `Port` field must have an **X** (administration without hardware). You must manually call forward this extension to the main AUDIX hunt group extension. In this example, you would forward extension 710 to extension 699. You can do this from any voice terminal that has console permissions.

```
add station 710                                              Page   1 of   2
                                 STATION
Extension: 710            BCC: 0                          TN: 1
     Type: 2500                    Lock Messages? n        COR: 40
     Port: X                       Security Code:          COS: 5
     Name: GUEST VOICE MAI         Coverage Path: 10      Tests? y
FEATURE OPTIONS
         LWC Reception: audix
          LWC Activation? n                     Coverage Msg Retrieval? n
            CDR Privacy? n                              Auto Answer: none
   Redirect Notification? n                          Data Restriction? n
 Per Button Ring Control? n                      Call Waiting Indication? n
   Bridged Call Alerting? n                 Att. Call Waiting Indication? n
      Off Premise Station? n                     Distinctive Audible Alert? n
        Switchhook Flash? y                      Message Waiting Indicator:
     Ignore Rotary Digits? n                         Adjunct Supervision? y
```

On Page 2, set the `Line Appearance` field to **call-appr**.

```
add station 710                                             Page   2 of   2
                                 STATION
 SITE DATA
        Room:                                     Headset? n
        Jack:                                     Speaker? n
       Cable:                                     Mounting: d
       Floor:                                  Cord Length: 0
    Building:                                    Set Color:



ABBREVIATED DIALING
    List1:                  List2:                  List3:

HOT LINE DESTINATION
          Abbreviated Dialing List Number (From above 1, 2 or 3):
                                                 Dial Code:


    Line Appearance: call-appr
```

Use the following screen to assign the coverage group and path for guest message retrieval.

```
add group coverage path 10
                           COVERAGE PATH

                  Coverage Path Number: 10

                  Next Path Number:           Linkage

COVERAGE CRITERIA
    Station/Group Status    Inside Call     Outside Call
           Active?              n               n
            Busy?               y               y
       Don't Answer?            y               y         Number of Rings: 1
            All?                n               n
  DND/SAC/Goto Cover?           y               y

COVERAGE POINTS

    Terminate to Coverage Pts. with Bridged Appearances? n

      Point1: h1            Point2: attd           Point3:
```

Coverage Paths (Server)

Use the following screen on the server to define the coverage path that redirects unanswered guest rooms calls to the Intuity Lodging voice messaging. This coverage path uses hunt group 1 (as defined earlier) and the attendant (in case the Intuity voice ports are all busy).

```
add group coverage path 1
                            COVERAGE PATH

                Coverage Path Number: 1

                    Next Path Number:          Linkage

COVERAGE CRITERIA
    Station/Group Status    Inside Call     Outside Call
            Active?              n                n
             Busy?              y                y
        Don't Answer?          y                y          Number of Rings: 3
             All?               n                n
 DND/SAC/Goto Cover?            y                y

COVERAGE POINTS

    Terminate to Coverage Pts. with Bridged Appearances? n

    Point1: h1                 Point2: attd              Point3:
```

Testing the Server-to-Intuity Link and Voice Ports

Use the following commands on the server and the Intuity to verify that the server-to-Intuity link and the voice ports are working. The link must be operational before you can test the voice ports. Use the command **Lodging Administration**, press [F7] to bring up the command menu, and select **LDG/PMS Link Restart** to restart the server-to-Intuity link.

Use this screen on the server to check the status of the processor interface link. The `Link Status` should show `in-service` and the `LOCAL/REMOTE PROCESSOR CHANNELS` should display `59/1`.

```
server status link 1
                            PI LINK STATUS
Link Number: 1                      Destination: EIA-LINK
Link Status: in-service
                            ERROR COUNT
 Hardware Device Check (receive): 0    Level 2 I-frames Retransmitted: 0
Hardware Device Check (transmit): 0             Level 2 Reset (SABM): 1
            Far-End MOOS Count: 0               Invalid Frame Count: 0
                 Far-End FRMR: 0                Far-End SABM(E)/DM: 0
                 Far-End DISC: 0             Protocol Error Detected: 0
                     Timeout: 0                    Local Busy Out: 0
    Software Initiated Link Down: 0    Firmware Initiated Link Down: 0
                 LOCAL/REMOTE PROCESSOR CHANNELS
59/1
```

Access this screen in the Intuity using the **Customer/Services Administration**, **Diagnostics**, **Switch Interface Diagnostics** command. This screen shows the link being in service and the link level as up.

```
+------------------------------------------------------------------------------+
+                            Diagnose Switch Link                              +
+------------------------------------------------------------------------------+
|  STATUS SWITCH-LINK                                                           |
|                                                                              |
|   Type  Baud    State                                                        |
|   DCIU  9600    In Service                                                   |
|                                                                              |
|   Link Level 2 is Up                                                         |
|                                                                              |
|   DCIU switches (In/Out of data transfer)                                    |
|        1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20            |
|        I                                                                     |
+------------------------------------------------------------------------------+
```

On the Intuity, use the **Customer/Services Administration**, **Diagnostics**, **Voice Board Diagnostics** command to display the following screen.

```
+------------------------------------------------------------------------------+
+                          Diagnose Voice Equipment                            +
+------------------------------------------------------------------------------+
|  Card  0 is IVC6   O.S.Index:  0          Function: TipRing                   |
|                    State: Inserv                                             |
|  CD.PT CHN STATE   STATE-CHNG-TIME   SERVICE-NAME PHONE     GROUP    TYPE     |
|   0.0  0   Inserv  Mar 20 18:49:25   *DNIS_SVC    720       2        IVC6     |
|   0.1  1   Inserv  Mar 20 18:49:25   *DNIS_SVC    721       2        IVC6     |
|   0.2  2   Inserv  Mar 20 18:49:25   *DNIS_SVC    722       2        IVC6     |
|   0.3  3   Inserv  Mar 20 18:49:25   *DNIS_SVC    723       2        IVC6     |
|   0.4  4   Inserv  Mar 20 18:49:25   *DNIS_SVC    724       2        IVC6     |
|   0.5  5   Foos    Mar 20 18:49:25   *DNIS_SVC    725       2        IVC6     |
+------------------------------------------------------------------------------+
```

This shows you the extension numbers directly assigned to each AUDIX voice port and you can call each one to test the ports. There are four possible port states:

■ In-Service (Inserv) — The channel is ready to accept telephone calls.

■ Facility-out-of-service (Foos) — The channel is not in service. This occurs when a channel has been release through the **Voice Board Diagnostics** screen to Inserv, and it does not detect loop current. A channel in the Foos state should automatically convert to the Inserv state when it detects loop current, but it may need to be reset. If you have connected the ports to the server and the ports remain in the Foos state, there is a problem with the server, the connection, or the Intuity hardware.

■ Manually-out-of-service (Manoos) — The channel has been busied-out under the **Voice Board Diagnostics** screen, or the channel is on a new IVC6 circuit card. A channel in the Manoos state will remain until it is release under the **Voice Board Diagnostics** screen.

■ Non-Existent (NONEX or not entry on any screen) — The system does not see the channel. The system will not see a channel that has not been properly activated even if the IVC6 is present. To change a channel from non-existent to recognized, the remote maintenance center must activate it.

In this example, extension 725 is possibly out of service. It can be verified by calling the port extension to see if the call is answered by AUDIX. Refer to the section "Assign Service to Channels for Testing" in *Intuity Software Installation for Release 3.0*, (585-310-160) for more information about testing.

Intuity Lodging-to-PMS Translations

The procedures you go through to administer the Intuity Lodging-to-PMS Link depends on whether or not you are using the Server/Intuity/PMS Link Integration feature. If you are using the Server/Intuity/PMS Link Integration feature, do the administration shown in the "Server/Intuity/PMS Link Integration" and "Standard Link Usage" sections. If you are using the standard Intuity Lodging-to-PMS link, do only the administration in the "Standard Link Usage" section.

Server/Intuity/PMS Link Integration

To enable the Server/Intuity/PMS Link Integration feature, enter a **y** in the `For-ward PMS Message to Intuity Lodging?` field.

```
change system hospitality-parameters                          Page   1 of   3
                        HOSPITALITY

                    Message Waiting Configuration: act-nopms
              Controlled Restrictions Configuration: act-pms
              Housekeeper Information Configuration: act-pms
                    Number of Housekeeper ID Digits: 0
                       Extension of PMS Log Printer:
                 Extension of Journal/Schedule Printer:
              Client Room Coverage Path Configuration: act-nopms
               Default Coverage Path for Client Rooms: 1
              Forward PMS Messages to Intuity Lodging? y

                            PMS LINK PARAMETERS
                                 Extension of PMS: 7899
                                PMS Protocol Mode: transparent ASCII mode? y
              Seconds before PMS Link Idle Timeout: 20
Milliseconds before PMS Link Acknowledgement Timeout: 500
                  PMS Link Maximum Retransmissions: 5
          PMS Link Maximum Retransmission Requests: 5
                 Take Down Link for Lost Messages? y
```

Standard Link Usage

This screen on the Intuity administers the standard link between the Intuity Lodging and the PMS. Use the **Lodging Administration**, **PMS Parameter Administration** command to access this screen. The `Device for Link` field must match the physical port connected to the Equinox card. All other translations must match the vendor requirements.

```
+-----------------------------------------------+
+          PMS Parameter Administration         +
+-----------------------------------------------+
|                Device for Link: /dev/ttysac   |
|             Maximum Link Error: 50            |
|    Link Acknowledgement Timeout: 20 sec       |
|              Link Idle Timeout: 20  sec       |
|         Maximum Retransmission: 5             |
|Maximum Retransmission Request: 5              |
|                      Baud Rate: B9600         |
+-----------------------------------------------+
```

Use this screen to administer the system parameters for Intuity Lodging. Use the **Lodging Administration**, **System Parameter Administration** command. Enter the backup voice terminal extensions in the `Attendant Extensions` field, and enter the attendant console dial-up number (usually 0) or extension in the `Primary Attendant` field. The `PMS Integration Parameters` must match the vendor requirements.

```
+-------------------------------------------------------------------------+
+                     System Parameter Administration                     +
+-------------------------------------------------------------------------+
|                       Attendant Extensions:                             |
|      195                                                                |
|                          Hunt Group Or                                  |
|                    Primary Attendant: 0                                 |
|                                                                         |
|                       Voice Mail Parameters                             |
|                   Mailbox Size: 6  min          Mailbox Type: Separate  |
|            Pause For TT Input: 4 sec       Play Back Format: FIFO        |
|     Maximum Extension Length: 4                                         |
|      Maximum Message Length: 120 sec                                    |
|Allow Guests To Save Messages?: Yes   PMS Integration Parameters         |
|Lamp ON For New Messages Only?: Yes   Message Lamp Controlled By: LDG     |
|           Automatic Transfer to      When PMS link is down, calls       |
|        Operator At End Of Call?: No       For Guests Handled By: LDG     |
|             Default Language: American English                          |
+-------------------------------------------------------------------------+
```

> **NOTE:**
> The `Message Waiting Lamp Controlled By` field should be set to **LDG** if you want Intuity Lodging to control the guest room message lamps. If the lamp control is enabled for the PMS, the front desk personnel should take messages for guests when the PMS link is down because the message lamps will not be turned on even when the Intuity has taken a message.

Testing the Intuity Lodging-to-PMS Link

After the connection is complete and the link is active, the mini-tester should show the following results (see the Note on Page 7). The leads marked with an asterisk are controlled by the Intuity, and the PMS controls the other leads.

```
TD* ○ red
                    red ○ RD
RTS* ○ dark
                  green ○ CTS
DSR ○ green
                  green ○ DTR*
 CD ○ green
```

After the connection is complete and the Intuity link is active, the following may indicate that the PMS is not active. Check with the vendor to verify.

```
TD* ○ red
                    red ○ RD
RTS* ○ dark
                    red ○ CTS
DSR ○ red
                  green ○ DTR*
 CD ○ red
```

Table 7 gives a list of PMS alarm codes, the event IDs, a description of the problem, and a method to clear the problem. Use the **Customer/Services Administration**, **Log Administration**, **Maintenance Log** command to display the events.

Table 7.   PMS Event IDs Generated on the Intuity

Alarm Code	Event IDs	Description	Clearing
11	PMS01, PMS02, PMS04, PMS05, PMS06, PMS07	The PMS communication link is down.	Restart PMS through the command menu.
12	PMS08	An unknown PMS communication link problem.	Stop and restart the voice system.
13	PMS10, PMS11, PMS38	Unable to manage allocated memory.	Stop and restart the voice system.
14	PMS14	PMS received a message of an invalid size.	Stop and restart the voice system.
15	PMS03, PMS09, PMS12, PMS13, PMS15, PMS16, PMS27, PMS29, PMS30, PMS31, PMS33, PMS34, PMS35, PMS39, PMS43	The PMS communication interface is having problems.	Restart PMS through the command menu.
16	PMS20, PMS22, PMS24, PMS25	Unable to use the assigned serial port.	Stop and restart the voice system.

Use the following screens to test the voice mailboxes for the guest rooms.

⇒ **NOTE:**
Mailboxes are created automatically for the guest rooms and do not require administration.

You must first do a test check-in from the PMS terminal to create a valid entry. The first screen is displayed using the **Lodging Administration**, **Guests Mailbox Administration**, **Mailbox** command. You must enter the extension number and press the DISPLAY function key. After you verify that the guest mailbox was created, remove the test entry by doing a check-out at the PMS terminal.

```
+-----------------------------------------------------+
+                      Mailbox                        +
+-----------------------------------------------------+
|      Guest Room Number:   112                       |
|            Guest Name: ERWIN                         |
|          Switch number: 1                           |
|                  Voice:   0                         |
|                    Fax:   0                         |
|                   Text:   0                         |
| Mailbox Capacity Usage:   0%                        |
+-----------------------------------------------------+
```

The following screen is displayed using the **Lodging Administration**, **Traffic and Space Usage Reports**, **Mailbox Usage** command.

```
+--------------------------------------------------------------------------+
+                       Mailbox Usage Report                               +
+--------------------------------------------------------------------------+
|                        Mailbox Usage Report                              |
|                        Mailbox size: 360 seconds                         |
|                        Mon Apr  1 07:40:20 1996                          |
| Current Messages:                                                        |
| Mailbox          Voice Msgs  Time(secs)   Text Msgs  Fax Msgs            |
|  112                 0          0            0          0                |
|  115                 0          0            0          0                |
|  119                 0          0            0          0                |
|  123                 0          0            0          0               v|
|  124                 0          0            0          0                |
|  126                 0          0            0          0                |
|  129                 0          0            0          0                |
|  132                 0          0            0          0                |
|  133                 0          0            0          0                |
|  136                 0          0            0          0                |
|  139                 0          0            0          0                |
|  140                 0          0            0          0                |
+--------------------------------------------------------------------------+
```

Server-to-Call Accounting Translations

You must assign the link between the server and the Intuity, administer the CDR parameters, and enable CDR for each incoming and outgoing trunk group.

Link Parameters (Intuity)

The data link between the server and the Intuity Lodging Call Accounting must be administered by the Homisco technician when he or she installs the software on the Intuity platform.

CDR Parameters (Server)

Use this screen to assign the CDR parameters on the server.

```
change system cdr-parameters
                       CDR SYSTEM PARAMETERS

 Node Number (Local PBX ID):                      CDR Date Format: month/day
      Primary Output Format: printer          Primary Output Ext: eia
   Secondary Output Format:
           Use ISDN Layouts? n              EIA Device Bit Rate: 9600
        Use Enhanced Formats? n

                   Record Outgoing Calls Only? n          Intra-switch CDR? n
  Suppress CDR for Ineffective Call Attempts? y          CDR Call Splitting? y
      Disconnect Information in Place of FRL? n      Attendant Call Recording? y
                                                    Interworking Feat-flag? n
  Force Entry of Acct Code for Calls Marked on Toll Analysis Form? n
                                    Calls to Hunt Group - Record: member-ext
   Record Called Direct Access Number Instead of Group or Member? n


  Record Non-Call-Assoc TSC? n
     Record Call-Assoc TSC? n    Digits to Record for Outgoing Calls: dialed
   Privacy - Digits to Hide: 0              CDR Account Code Length: 2
```

As shown on Page 54, enable CDR Reports for each trunk group.

Testing the Server-to-Call Accounting Link

To test the CDR link, use the following status command on the server.

```
server status cdr-link                                   Page   1 of   1
                         CDR LINK STATUS
             Primary                          Secondary

      Link State: Link-up                   extension not administered

  Maintenance Busy?
```

You should also work with the vendor to test the link from the call accounting end. If you are installing the Intuity Lodging Call Accounting, work with the Homisco technician to test the link.

Intuity Lodging Call Accounting-to-PMS Translations

The data link between the Intuity Lodging Call Accounting and the PMS must be administered by the Homisco technician when he or she installs the software on the Intuity platform.

Testing the Intuity Lodging Call Accounting-to-PMS Link

To test the call accounting link, make a test call from a test guest room to verify that the call is posted on the call accounting system and the PMS.

Server-to-PMS Link Translations

Administration of the server-to-PMS link includes the following:

- Network control (netcon)

- 7400A data module

- Hospitality parameters

- Housekeeping status feature access codes and definitions

- Controlled restrictions.

Netcon

Use the following screen to administer the netcon connection on the server.

```
add data-module 7891
                          DATA MODULE

  Data Extension: 7891            BCC: 2
            Type: netcon          COS: 15      Maintenance Extension: 7995
Physical Channel: 01              COR: 50
            Name: NETCON 01        TN: 1
             ITC: restricted

ABBREVIATED DIALING
  List1:

SPECIAL DIALING OPTION:


ASSIGNED MEMBER ( Station with a data extension button for this data module )

        Ext     Name
      1:
```

You must assign all four netcon channels. The following table is an example of how you can administer the netcon channels:

Data Extension	Physical Channel	Maintenance Extension
7891	01	7895
7892	02	7896
7893	03	7897
7894	04	7898

Data Modules

Use the following screen to administer the 7400A data module connected between the server and the PMS.

```
add data-module 7899
                              DATA MODULE

  Data Extension: 7899             BCC: 2
            Type: pdm             COS: 15    Remote Loop-Around Test? n
            Port: 01B0102         COR: 50      Secondary data module? n
            Name: PMS LINK         TN: 1                 Connected to: dte
             ITC: restricted

ABBREVIATED DIALING
  List1:

SPECIAL DIALING OPTION:


ASSIGNED MEMBER ( Station with a data extension button for this data module )

        Ext     Name
      1:
```

Hospitality Parameters

Use the following screens to administer the hospitality parameters. These assignments must be coordinated with the PMS vendor and the customer. On Page 1, administer the following:

- For the `Message Waiting Configuration` field, enter **act-nopms** if the Intuity is controlling the message waiting lamps, and enter **act-pms** if the PMS is controlling the message waiting lamps.

- The `Controlled Restrictions Configuration`, `Housekeeper Information Configuration`, and `Client Room Coverage Path Configuration` fields control features offered by some PMS vendors. If the PMS vendor supports the feature, enter **act-pms** in the corresponding field. If the PMS vendor does not support the feature, enter **act-nopms** in

the corresponding field. Note that if the `Client Room Coverage Path Configuration` field is administered incorrectly, administered coverage paths for rooms will be deleted.

■ If the `PMS Protocol Mode` is **transparent**, set the `PMS Link Idle Timeout` to **20** and the `PMS Link Acknowledgement Timeout` to **500**. If the `PMS Protocol Mode` is **normal**, set the `PMS Link Idle Time-out` to **20** and the `PMS Link Acknowledgement Timeout` to **300**. If the PMS supports ASCII data mode, enter a **y** in the `ASCII mode?` field.

```
change system hospitality-parameters                      Page   1 of   3
                        HOSPITALITY

                Message Waiting Configuration: act-nopms
             Controlled Restrictions Configuration: act-pms
             Housekeeper Information Configuration: act-pms
                  Number of Housekeeper ID Digits: 0
                     Extension of PMS Log Printer:
              Extension of Journal/Schedule Printer:
           Client Room Coverage Path Configuration: act-nopms
            Default Coverage Path for Client Rooms: 1
            Forward PMS Messages to Intuity Lodging? y

                         PMS LINK PARAMETERS
                             Extension of PMS: 7899
                           PMS Protocol Mode: transparent ASCII mode? y
              Seconds before PMS Link Idle Timeout: 20
Milliseconds before PMS Link Acknowledgement Timeout: 500
                     PMS Link Maximum Retransmissions: 5
           PMS Link Maximum Retransmission Requests: 5
                  Take Down Link for Lost Messages? y
```

➡ **NOTE:**
Do an **execute busyout pms-link** followed by an **execute release pms-link** whenever you change the link timer values.

On Page 2, the `Number of Digits From PMS` field should be left blank and the `Digit to Insert/Delete` field may need to be administered. If the room numbers use a combination of 3- and 4-digit or 4- and 5-digit extension numbers, you must enter the leading digit that must be inserted when sent from the PMS to the server and deleted when sent from the server to the PMS. This works as shown in the following example:

■ Digit Insertion — If the digits received by the server are 123 and the inser-tion digit is 7, extension 7123 is checked to see if it is a valid extension. If 7123 is valid, the message is processed for extension 7123; if extension 7123 is not valid, the server assumes that the message is for extension 123 and processes it accordingly. If both 7123 and 123 are valid, the mes-sage will only be processed for extension 7123. Numbering conflicts such as this should be avoided when possible.

- Digit Deletion — The server checks the extension before it is sent to the PMS. If the extension contains the maximum number of digits translated for a leading digit and the leading digit matches the administered Insert/Delete digit, the digit is deleted before sending the extension to the PMS. For example, if the Insert/Delete digit is 7 and extensions 712 and 7123 are valid on the server, 712 will be sent as 712; however, 7123 is sent as 123 (this assumes there are no 5-digit extensions starting with 7 exist on the server).

```
change system hospitality-parameters                       Page   2 of   3
                          HOSPITALITY


                 Time of Scheduled Wakeup Activity Report:
                  Time of Scheduled Wakeup Summary Report:
         Time of Scheduled Emergency Access Summary Report:

                                        Announcement Type: mult-integ
                          Default Announcement Extension: 380

        Length of Time to Remain Connected to Announcement: 30
           Extension to Receive Failed Wakeup LWC Messages: 399
        Routing Extension on Unavailable Voice Synthesis:
                 Display Room Information in Call Display? n

                         Number of Digits from PMS:
                                     PMS Sends Prefix? n
               Number of Digits in PMS Coverage Path: 3
                                  Digit to Insert/Delete:
```

Housekeeping Status

Use the following screen to assign the housekeeping status feature access codes. Only administer the feature access codes that the vendor supports and that match the status definitions.

```
change feature access-codes                                Page   4 of   4
                      FEATURE ACCESS CODE (FAC)
                        Hospitality Features

            Automatic Wakeup Call Access Code: *98
  Housekeeping Status (Client Room) Access Code: *81
  Housekeeping Status (Client Room) Access Code: *82
  Housekeeping Status (Client Room) Access Code: *83
  Housekeeping Status (Client Room) Access Code: *84
  Housekeeping Status (Client Room) Access Code:
  Housekeeping Status (Client Room) Access Code:
     Housekeeping Status (Station) Access Code:
     Housekeeping Status (Station) Access Code:
     Housekeeping Status (Station) Access Code:
     Housekeeping Status (Station) Access Code:
        Verify Wakeup Announcement Access Code: *89
                Voice Do Not Disturb Access Code: *33
```

Use the following screen to administer the housekeeping status definitions. Coordinate these assignments with the PMS requirements.

```
change system hospitality-parameters                          Page   3 of   3
                        HOSPITALITY

        Definition for Rooms in State 1: OCCUPIED/DIRTY
        Definition for Rooms in State 2: OCCUPIED/MAID IN ROOM
        Definition for Rooms in State 3: OCCUPIED/CLEAN
        Definition for Rooms in State 4: VACANT/CLEAN
        Definition for Rooms in State 5: Rooms in state 5
        Definition for Rooms in State 6: Rooms in state 6
```

Controlled Restrictions

When Controlled Restrictions are applied to guest rooms, calls made to those rooms or from those rooms are routed to intercept treatment. The recommended intercept treatment is to route the calls to the attendant console. Use the following screen to set the controlled restriction intercept treatment.

```
change system feature-parameters                              Page   3 of   6
                    FEATURE-RELATED SYSTEM PARAMETERS

                    Reserved Slots for Attendant Priority Queue: 5
                                      Time before Off-hook Alert: 10
                        Emergency Access Redirection Extension:

            Number of Emergency Calls Allowed in Attendant Queue: 5

                                            Call Pickup Alerting? n
            Deluxe Paging and Call Park Timeout to Originator? y

  Control Outward/Toll Restriction Intercept Treatment: attendant
   Controlled Termination Restriction (Do Not Disturb): attendant
           Controlled Station to Station Restriction: attendant

 AUTHORIZATION CODE PARAMETERS       Authorization Codes Enabled? n
```

The PMS automatically applies controlled restrictions to guest rooms as they check in and check out. If the PMS link is down, you will have to apply and remove controlled restrictions manually. Administer the controlled restriction feature access codes using the screens found on Page 55.

Optionally, you can substitute Toll Restriction for the standard Outward or Station-to-Station restrictions. Enter **nothing**, **outward**, or **station-station** into the `Controlled Toll Restriction replaces` field. If you enter **nothing**, you have access to Outward, Total, Termination, and Station-to-Station restrictions. If you enter **outward**, you have access to Toll, Total, Termination, and Station-to-Station restrictions. If you enter **station-station**, you have access to Outward,

Total, Termination, and Toll restrictions. In this example, Toll Restriction is substituted for Outward Restriction.

```
change system guestworks-options                        Page  1 of  1
                           GUESTWORKS OPTIONS


        Day Mode TAAS Pickup & Backup Station Audible Alerting? y
                      Controlled Toll Restriction replaces: outward
```

Testing the Server-to-PMS Link

To test the server-to-PMS link, have the hotel designate a room for testing. Testing the server-to-PMS link includes the following:

- Testing with the RS232 Mini-Tester

- Netcon and 7400A data module

- PMS testing and status

- Database swap

- Check-in and check-out

- Message delivery (both manual messages and voice messages)

- Controlled restrictions

- Housekeeping status.

During the server-to-PMS testing, you will use the list maintenance pms-down command often to view events that may indicate problems with the link. These events are found in "Appendix D — List PMS Down Events" on Page 129.

Server-to-PMS Link Testing with the RS232 Mini-Tester

Using the RS232 Mini-Tester (see the Note on Page 7), check the status of the PMS link. The leads marked with an asterisk are controlled by the server, and the PMS controls the other leads. If any of the server leads are dark, there is no connection.

If the link to a PMS is active, the mini-tester should show the following. The Physical Link State should be up and the Protocol State should be up. If this is the status of the link, proceed to "Netcon and 7400A Testing" on Page 100. Otherwise, look at the other results in this section.

```
TD ○ red
               red ○ RD*
RTS ○ green
               green ○ CTS*
DSR*○ green
               green ○ DTR
 CD* ○ green
```

If the link is idle, the mini-tester may show the following. The Physical Link State will be down and the Protocol State will be down. Possible causes may be that the server or the PMS is not administered correctly, or the PMS software is not running.

```
TD ○ red
               red ○ RD*
RTS ○ red
               red ○ CTS*
DSR*○ red
               red ○ DTR
 CD* ○ red
```

If the link to a PMS is idle, the mini-tester may also show the following. The Physical Link State will be down and the Protocol State will be down. Possible causes may be that the PMS hardware is powered-up but the server is not administered correctly, or the PMS link is busied out at the server.

```
TD  ⬤ red
                    red ⬤ RD*
RTS ⬤ green
                    red ⬤ CTS*
DSR*⬤ red
                 green ⬤ DTR
CD* ⬤ red
```

Netcon and 7400A Testing

To test the netcon and the 7400A, do the following:

1. Run the command **server status data-module XXXX** (where **XXXX** is the extension of the netcon data module).

   If the status message shows that the netcon data module is in the in-service/active state and shows the connected port of the 7400A data module, this indicates that there was an available netcon data channel and that the 7400A extension has been added to the hospitality parameters form.

   If the status message shows that the netcon data module is in the in-service/idle state, the PMS link may have been busied out. Release the PMS link.

2. Run the command **server status data-module XXXX** (where **XXXX** is the extension of the PMS link data module).

   If the status message shows that the PMS link data module is in the in-service/active state and shows the connected port of the netcon, this indicates that the PMS link data module extension has been added to the hospitality parameters form.

   If the status message shows that the netcon data module is in the in-service/idle state, the PMS link may not be providing DTR. Contact the PMS vendor for assistance.

3. Dial the netcon extension and the PMS link data module extension. If these facilities are operational, you will hear a high-pitched data tone.

PMS Testing and Status

Use the **execute test pms** command to test the PMS link. If the link was not active, this command sometimes causes the link to be established. Test 215 should PASS before testing can proceed.

Use the **server status pms-link** command to display the current status of the PMS link. The following is an example of that screen:

```
server status pms-link
                    PMS LINK STATUS

     Physical Link State: Up
          Protocol State: Up
       Number of Retries: 1
         Maintenance Busy? yes
        Database Swapping? No
```

The fields are defined as follows:

- **Physical Link State** — If the link state is Up, the transmit/receive lamps will be flashing, and all other lamps will be lit (except for the ringing indicator lamp). This indicates that the link is active, and the call has been placed from the netcon to the data module.

- **Protocol State** — If the protocol state is Up, the 7400A carrier detect lamp is lit, and at least one status inquiry message has been received and understood from the PMS. The 7400A transmit/receive lamps will be flashing if the server is talking with the PMS. If the lamps stay on longer than the link idle timeout setting (usually 20 seconds), the server and the PMS are communicating. If the TD lamp flashes every 15 to 20 seconds, this indicates that the PMS is sending data to the server.

- **Number of Retries** — This count increments every 5 minutes for the first 12 retries, and then every 15 minutes until the link is established. This could indicate that the netcon data channel is not available because too many resources are assigned, or the data module could be busy. If there are no retries to report, this field is not displayed.

- **Maintenance Busy?** — This field shows if the link is currently maintenance busied-out. If the link is not maintenance busied-out, this field is not displayed.

- **Database Swapping?** — If the field displays yes, the room images are being transmitted between the server and the PMS. If the field displays pending, the database swap has been requested by the server. If the field displays no, the PMS link is up.

Database Swap Testing

To test database swapping, do the following:

1. Busy-out the PMS link using the command **execute busyout pms-link**.

2. Do a check-in or check-out on the test room from the attendant console or backup voice terminal. This sets the flag for the server to request a database swap from the PMS.

3. Release the PMS link using the command **execute release pms-link**.

4. Run the **server status pms-link** command to verify the database swap between the server and the PMS. A database swap can take from 20 minutes to 1 hour.

```
server status pms-link
                    PMS LINK STATUS

        Physical Link State: Up
            Protocol State: Up


         Database Swapping? Yes
```

5. When the database swapping is complete, the Database Swapping field is No. Use the **server status station XXXX** command (where **XXXX** is a guest room number) on a few guest rooms to confirm that the check-in and check-out status agrees between the server and the PMS.

6. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

Check-In and Check-Out Testing

To test check-in and check-out, do the following:

1. Do a check-in for the test room from the PMS terminal.

2. Run the command **server status station XXXX** (where **XXXX** is the test room number). The status should appear as follows:

```
server status station 1005
                          GENERAL STATUS

            Type: 2500              Service State: in-srv/on-hook or disc
       Extension: 1005            Download Status: not-applicable
            Port: 01B0601             SAC Activated? no
     Call Parked? no             User Cntrl Restr: none
 Ring Cut Off Act? No           Group Cntrl Restr: none
CF Destination Ext:


   Message Waiting:
   Connected Ports:


                                  HOSPITALITY STATUS
                             AWU Call At:
                                User DND: not activated
                               Group DND: not activated
                             Room Status: occupied
```

Normally at check-in, the Room Status field should be occupied, and the User Cntrl Restr field is none. If an occupied room's restriction is set to outward, this indicates that the guest is a cash-paying customer and is restricted from placing calls external to the server.

3. Use the **list station** command to list the guest room stations. The test room guest name should display on that listing, as well as other guest names received on a database swap.

4. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

5. Do a check-out on the test room.

6. Run the command **server status station XXXX** again.

   The Room Status field should be vacant and the restrictions should be set to outward.

7. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

Message Waiting Testing

You must test manual message waiting and voice messaging (if installed).

To test manual message waiting, do the following:

1. Activate manual message waiting for the test room from the PMS terminal.

2. Run the command **server status station XXXX** (where **XXXX** is the test room number). The status should appear as follows:

```
server status station 1005
                              GENERAL STATUS

            Type: 2500                Service State: in-srv/on-hook or disc
       Extension: 1005               Download Status: not-applicable
            Port: 01B0601               SAC Activated? no
     Call Parked? no                 User Cntrl Restr: none
 Ring Cut Off Act? No                Group Cntrl Restr: none
CF Destination Ext:


  Message Waiting: pms
  Connected Ports:

                                      HOSPITALITY STATUS
                                  AWU Call At:
                                     User DND: not activated
                                    Group DND: not activated
                                  Room Status: occupied
```

3. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

4. Deliver the message from the PMS terminal.

5. Run the command **server status station XXXX** again.

   The `Message Waiting` field should be blank.

6. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

To test voice messaging by retrieving the message from the test room, do the following:

1. Call the test room and leave a message after the tone.

2. Run the command **server status station XXXX** (where **XXXX** is the test room number). The status should appear as follows:

```
server status station 1005
                            GENERAL STATUS

              Type: 2500                Service State: in-srv/on-hook or disc
         Extension: 1005              Download Status: not-applicable
              Port: 01B0601              SAC Activated? no
       Call Parked? no               User Cntrl Restr: none
 Ring Cut Off Act? No               Group Cntrl Restr: none
CF Destination Ext:


   Message Waiting: audix
   Connected Ports:

                                      HOSPITALITY STATUS
                                     AWU Call At:
                                        User DND: not activated
                                       Group DND: not activated
                                     Room Status: occupied
```

3. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

4. From the test room, call the voice messaging system. You will hear "Welcome to the guest voice mail system. You have one new message." Listen to the message, then delete the message.

5. Run the command **server status station XXXX** again.

   The Message Waiting field should be blank.

6. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

To test voice messaging by retrieving the message from the attendant console, do the following:

1. Call the test room and leave another message after the tone.

2. Run the command **server status station XXXX** (where **XXXX** is the test room number). The status should appear as follows:

```
server status station 1005
                           GENERAL STATUS

            Type: 2500                   Service State: in-srv/on-hook or disc
       Extension: 1005                  Download Status: not-applicable
            Port: 01B0601                SAC Activated? no
     Call Parked? no              User Cntrl Restr: none
 Ring Cut Off Act? No             Group Cntrl Restr: none
CF Destination Ext:


    Message Waiting: audix
   Connected Ports:

                                    HOSPITALITY STATUS
                             AWU Call At:
                                User DND: not activated
                               Group DND: not activated
                             Room Status: occupied
```

3. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

4. From the attendant console or backup voice terminal, call the voice messaging system. You will hear "Please enter your room extension." Enter the test room extension. You will hear "You have one new voice mail message." Listen to the message, then delete the message.

5. Run the command **server status station XXXX** again.

   The Message Waiting field should be blank.

6. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

Controlled Restrictions Testing

To test Controlled Restrictions, do the following:

1. Activate Outward Restriction on the test room from the PMS terminal.

2. Run the command **server status station XXXX** (where **XXXX** is the test room number). The status should appear as follows:

```
server status station 1005
                        GENERAL STATUS

            Type: 2500              Service State: in-srv/on-hook or disc
       Extension: 1005            Download Status: not-applicable
            Port: 01B0601           SAC Activated? no
     Call Parked? no             User Cntrl Restr: outward
  Ring Cut Off Act? No           Group Cntrl Restr: none
CF Destination Ext:


   Message Waiting:
   Connected Ports:


                              HOSPITALITY STATUS
                          AWU Call At:
                             User DND: not activated
                            Group DND: not activated
                          Room Status: occupied
```

3. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

4. Deactivate Outward Restriction on the test room from the PMS terminal.

5. Run the command **server status station XXXX** again.

   The User Cntrl Restr field should be blank.

6. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

Housekeeping Status Testing

To verify that the housekeeping status is updated, do the following:

1. At the test room, update the housekeeping status. If the PMS confirms the status change within 40 seconds, you will hear confirmation tone. If the status was not accepted, you will hear reorder tone. If you dialed an invalid code, you will hear intercept tone.

2. Verify that the status changed at the PMS terminal. You can also check the housekeeping status from the attendant console.

3. Use the command **list maintenance pms-down** to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix D — List PMS Down Events" on Page 129.

4. At a designated telephone, update the housekeeping status for the test room. If the PMS confirms the status change within 40 seconds, you will hear confirmation tone. If the status was not accepted, you will hear reorder tone. If you dialed an invalid code, you will hear intercept tone.

5. Verify that the status changed at the PMS terminal. You can also check the housekeeping status from the attendant console.

Provide a list of feature access codes and housekeeping status codes to the customer and the PMS vendor.

Journal/Log Printer Translations (Server)

To administer a printer, you must assign a 7400A data module and assign the data module extension to the hospitality parameters form. In the example below, the same printer is used for journal/schedule printing and log printing. If you have two different printers, you must administer two different 7400A data modules, and you will assign a different extension for each printer.

➡ **NOTE:**
A log printer must be administered if the "list PMS down" feature is to log errors. If an actual log printer is not being installed, you should at least administer an **X** in the equipment location field (administration without hardware) to represent the log printer assignment.

```
add data-module 7850
                              DATA MODULE

  Data Extension: 7850            BCC: 2
             Type: pdm           COS: 15   Remote Loop-Around Test? n
             Port: 01B0101       COR: 50      Secondary data module? n
             Name: JOURNAL PRT    TN: 1                  Connected to: dte
              ITC: restricted

ABBREVIATED DIALING
  List1:

SPECIAL DIALING OPTION:


ASSIGNED MEMBER ( Station with a data extension button for this data module )

        Ext     Name
       1:
```

Enter the extensions of the printers in the `Extension of PMS Log Printer` and `Extension of Journal/Schedule Printer` field.

```
change system hospitality-parameters                      Page   1 of   3
                         HOSPITALITY

                  Message Waiting Configuration: act-nopms
            Controlled Restrictions Configuration: act-pms
            Housekeeper Information Configuration: act-pms
                  Number of Housekeeper ID Digits: 0
                     Extension of PMS Log Printer:
           Extension of Journal/Schedule Printer:
           Client Room Coverage Path Configuration: act-nopms
            Default Coverage Path for Client Rooms: 1
            Forward PMS Messages to Intuity Lodging? y


                          PMS LINK PARAMETERS
                              Extension of PMS: 7899
                             PMS Protocol Mode: transparent ASCII mode? y
             Seconds before PMS Link Idle Timeout: 20
Milliseconds before PMS Link Acknowledgement Timeout: 500
                  PMS Link Maximum Retransmissions: 5
          PMS Link Maximum Retransmission Requests: 5
                 Take Down Link for Lost Messages? y
```

Testing the Journal/Log Printer

Using the RS232 Mini-Tester (see the Note on Page 7), check the status of the printer connection. The leads marked with an asterisk are controlled by the server, and the printer controls the other leads; if any of the server leads are dark, there is no connection.

If the link is active, the mini-tester should show the following.

```
TD ● red
                    red ● RD*

RTS ● green
                  green ● CTS*

DSR* ● green
                  green ● DTR

  CD* ● green
```

The following test results occur if the link is idle, but the reasons for the results are different.

The following will display if the link is not up; try the **execute test journal pms** command to start the link. The printer could also be busied out; try the **execute release journal pms** command to release the printer.

```
TD ● red
                    red ● RD*

RTS ● green
                    red ● CTS*

DSR* ● red
                  green ● DTR

  CD* ● red
```

The following will display if the printer is turned off; turn on the printer power.

```
TD ○ dark
                    red ● RD*

RTS ○ dark
                    red ● CTS*

DSR* ● red
                   dark ○ DTR

  CD* ● red
```

The following will display if the printer is off-line; press the on-line button on the printer.

```
   TD ○ red
                    red ○ RD*
  RTS ○ red
                  green ○ CTS*
 DSR* ○ green
                  green ○ DTR
   CD* ○ green
```

Another way to test the log printer connection is to create an Automatic Wakeup Call for the test room. If the printer is working, a wakeup call request message prints on the log printer.

Customer Logins and Passwords (Server)

Use the following screen to add customer logins and passwords to the server. The logins and passwords must be 3 to 6 characters long using any combination of 0-9, a-z, and A-Z. You should add only the logins that the customer requests. Instruct the customer that the logins and passwords must be kept secure to avoid security issues.

```
add maintenance login staff1                            Page   1 of   1
                        LOGIN ADMINISTRATION

            Password of Login Making Change:

LOGIN BEING ADMINISTERED
                        Login's Name: staff1
                          Login Type: customer
                        Service Level: non-super-user


LOGIN'S PASSWORD INFORMATION
                     Login's Password:
              Reenter Login's Password:
      Password Aging Cycle Length (Days): 30

LOGOFF NOTIFICATION
  Facility Test Call Notification? y    Acknowledgement Required? y
      Remote Access Notification? y    Acknowledgement Required? y
```

Customer Logins (Intuity)

Use the **Customer/Services Administration**, **System Management**, **UNIX Management**, **Password Administration** command to create a password for the customer. The customer will use the "sa" login. Remind the customer to change the password as soon as the system is turned over, and to change it frequently.

Security Notification (Server)

Use the following screen to add security notification to the server.

```
change system security-parameters                        Page   1 of   1
                    SECURITY-RELATED SYSTEM PARAMETERS

 SECURITY VIOLATION NOTIFICATION PARAMETERS

   SVN Login Violation Notification Enabled? y
              Originating Extension:              Referral Destination:
                    Login Threshold:                   Time Interval:
            Announcement Extension:




   SVN Authorization Code Violation Notification Enabled? y
              Originating Extension:              Referral Destination:
      Authorization Code Threshold:                   Time Interval:
            Announcement Extension:
```

Save Translations (Server)

After you have finished all translations, tested the translations, and verified them with the customer, save the translations using the command **server save transla-tion**. After saving translations, log off using the command **logoff**.

Create Backup Tape (Intuity)

Use the **Customer/Services Administration**, **Backup/Restore**, **Backup** command to create a backup tape for the Intuity.

Test the Server

1. Check the server status for each cabinet.

2. Check the circuit pack configuration.

3. Test the TDM bus in the Processor Port Network (PPN).

4. Test the Tone-Clock boards.

5. Check the circuit pack configuration again.

6. Save and back up translations.

7. Reinstall the front doors on the server cabinets.

Install and Wire Telephones and Other Equipment

1. Make and label the wiring cross-connections for this customer, using the provisioning plan described earlier in this handbook.

2. Install and label the equipment.

3. Install the 302B or 302C attendant console. Part of installing the attendant console is putting the button labels in place. There are special buttons used for hospitality products, and they must be installed in the correct positions. See the section on recommended button layouts.

4. Install the 8400-series voice terminals. This includes the button designation strips.

5. Install the 8100-series voice terminals (if needed).

6. Install the Teledex guest room telephones if time and material charges have been contracted for this installation.

7. Install the trunks.

8. Install the emergency transfer units and associated telephones.

9. Install the external ringing equipment.

10. Install the auxiliary equipment.

11. Install the 7400-series data modules not already installed for the hospitality adjuncts.

Test Telephones and Other Equipment

1. Make test calls.

2. Test the attendant console and selector console.

3. Test the external ringing.

4. Test the music-on-hold.

5. Test the emergency transfer.

6. Test the remote access interface (known as INADS).

Customer Turnover

After you have installed and tested the GuestWorks *server* and installed adjuncts, and have determined that the solution is operating correctly, you will turn control of the system over to the customer. This transfer includes the following:

- Do a final save of the translations.

- Give the customer the following:

    — Console Operations guide

    — Voice terminal quick reference guides

    — Feature Descriptions

    — Intuity voice messaging instructions

    — A copy of the dialing plan, a list of the feature access codes, and a list of the trunk access codes

    — Logins and passwords to the server and the Intuity

- Show the customer how to record announcements for wakeup calls or the Direct Access Calling feature.

- Explain any Direct Access Calling procedures that have been administered.

- Remind the customer that they need to provide information about any new telephone numbers and services to the guests, such as instructions that show guests how to do their own wakeup calls and Do Not Disturb requests. The information about those features are in the *GuestWorks server Feature Descriptions*, (555-231-204).

Maintenance

Maintenance procedures for the GuestWorks *server* are the same as other Lucent Technologies ECS products. See the *DEFINITY Communications System Generic 3i/s/vs Maintenance*, (555-204-105). The only new hardware on the GuestWorks *server* is the TN791 analog port board.

The TN791 analog port board is used for most guest room telephone connections. The TN791 contains the circuitry to support all types of standard analog telephones, including most telephones used today in existing hotel sites that have neon or LED message lamps. There are 16 ports on the TN791, so you can service many rooms with a small amount of hardware. The TN791 wires out the same as the TN746B.

When performing maintenance routines on this board, use the routines normally used on the TN746B analog port board. The tests are the same and the results will be accurate for the TN791. If a faulty TN791 must be replaced, you must replace it with another TN791, not a TN746B.

Appendix A — Command Path Conversions

The GuestWorks *server* command paths for administration are similar to the existing Lucent Technologies DEFINITY ECS. Table 8 through Table 13 show the command paths used previously and the new paths used for GuestWorks.

Table 8.   Command Path Conversions - add

DEFINITY Commands	GuestWorks *server* Commands
add abbreviated-dialing	add feature abbreviated-dialing
add access-endpoint	add network access-endpoint
add administered-connection	add network administered-connection
add attendant	add attendant
add coverage	add group coverage
add data-module	add data-module
add ds1	add maintenance ds1
add eda-external-dev-alrm	add maintenance eda-external-dev-alrm
add hunt-group	add group hunt
add intercom-group	add group intercom
add intra-switch-cdr	add feature intra-switch-cdr
add login	add maintenance login
add modem-pool	add group modem-pool
add personal-co-line	add group personal-co-line
add pickup-group	add group pickup
add prec	add maintenance prec
add pri-endpoint	add network pri-endpoint
add second-digit	add system dialplan second-digit
add signaling-group	add maintenance signaling-group
add station	add station
add term-ext-group	add group term-extensions
add test-schedule	add maintenance test-schedule
add trunk-group	add group trunk
add vdn	add feature direct-access number

Table 9. Command Path Conversions - **change**

DEFINITY Commands	GuestWorks *server* Commands
change abbreviated-dialing	change feature abbreviated-dialing
change access-endpoint	change network access-endpoint
change administered-connection	change network administered-connection
change alias	change feature alias
change alphanumeric-dial-table	change feature alphanumeric-dial-table
change alternate-frl	change restriction alternate-frl
change announcements	change feature announcements
change ars	change network ars
change attendant	change attendant
change authorization-codes	change network authorization-codes
change bulletin-board	change feature bulletin-board
change circuit-packs	change maintenance circuit-packs
change communication-interface	change maintenance communication-interface
change console-parameters	change system console-parameters
change cor	change restriction cor
change cos	change restriction cos
change coverage	change group coverage
change data-module	change data-module
change dialplan	change system dialplan first-digit
change digit-absorption	change network digit-absorption
change display-messages	change feature display-messages
change ds1	change maintenance ds1
change eda-external-dev-alrm	change maintenance eda-external-dev-alrm
change feature-access-codes	change feature access-codes
change hunt-group	change group hunt
change integ-annc-brd-loc	change feature integ-annc-brd-loc
change intercom-group	change group intercom
change intra-switch-cdr	change feature intra-switch-cdr
change isdn	change network isdn
change ixc-codes	change network ixc-codes
change listed-directory-numbers	change system listed-directory-numbers
change login	change maintenance login
change mct-group-extensions	change group mct-extensions
change meas-selection	change feature meas-selection

Table 9. Command Path Conversions - change

DEFINITY Commands	GuestWorks *server* Commands
change modem-pool	change group modem-pool
change mst	change maintenance mst
change paging	change feature paging
change password	change restriction password
change permissions	change restriction permissions
change personal-co-line	change group personal-co-line
change pickup-group	change group pickup
change pri-endpoint	change network pri-endpoint
change report-scheduler	change system report-scheduler
change rhnpa	change network rhnpa
change route-pattern	change network route-pattern
change second-digit	change system dialplan second-digit
change signaling-group	change maintenance signaling-group
change site-data	change maintenance site-data
change station	change station
change synchronization	change maintenance synchronization
change system-parameters cdr	change system cdr-parameters
change system-parameters country-options	change system country-parameters
change system-parameters customer-options	change system options
change system-parameters features	change system feature-parameters
change system-parameters hospitality	change system hospitality-parameters
change system-parameters maintenance	change system maintenance-parameters
change system-parameters multifrequency-signaling	change system mf-signaling-parameters
change system-parameters security	change system security-parameters
change system-parameters special-applications	change system guestworks-options
change term-ext-group	change group term-extensions
change terminal-parameters	change system terminal-parameters
change test-schedule	change maintenance test-schedule
change time-of-day	change network time-of-day
change toll	change network toll
change trunk-group	change group trunk
change vdn	change feature direct-access number
change vector	change feature direct-access procedure

Table 10. Command Path Conversions - **display**

DEFINITY Commands	GuestWorks *server* Commands
display abbreviated-dialing	display feature abbreviated-dialing
display access-endpoint	display network access-endpoint
display administered-connection	display network administered-connection
display alarms	display maintenance alarms
display alias	display feature alias
display alphanumeric-dial-table	display feature alphanumeric-dial-table
display alternate-frl	display restriction alternate-frl
display announcements	display feature announcements
display ars	display network ars
display attendant	display attendant
display authorization-codes	display network authorization-codes
display bulletin-board	display feature bulletin-board
display button-location-aca	display feature aca-button-location
display capacity	display system capacity
display circuit-packs	display maintenance circuit-packs
display communication-interface	display maintenance communication-interface
display console-parameters	display system console-parameters
display cor	display restriction cor
display cos	display restriction cos
display coverage	display group coverage
display data-module	display data-module
display dialplan	display system dialplan first-digit
display digit-absorption	display network digit-absorption
display disabled-tests	display maintenance disabled-tests
display display-messages	display feature display-messages
display ds1	display maintenance ds1
display eda-external-dev-alrm	display maintenance eda-external-dev-alrm
display errors	display maintenance hardware-log
display events	display maintenance events
display feature-access-codes	display feature access-codes
display hunt-group	display group hunt
display initcauses	display maintenance initcauses
display integ-annc-brd-loc	display feature integ-annc-brd-loc
display intercom-group	display group intercom

Table 10. Command Path Conversions - display

DEFINITY Commands	GuestWorks *server* Commands
display internal-data	display maintenance internal-data
display intra-switch-cdr	display feature intra-switch-cdr
display isdn	display network isdn
display ixc-codes	display network ixc-codes
display listed-directory-numbers	display system listed-directory-numbers
display login	display maintenance login
display mct-group-extensions	display group mct-extensions
display meas-selection	display feature meas-selection
display modem-pool	display group modem-pool
display mst	display maintenance mst
display paging	display feature paging
display permissions	display restriction permissions
display personal-co-line	display group personal-co-line
display pickup-group	display group pickup
display port	display maintenance port
display pri-endpoint	display network pri-endpoint
display rhnpa	display network rhnpa
display route-pattern	display network route-pattern
display second-digit	display system dialplan second-digit
display signaling-group	display maintenance signaling-group
display site-data	display maintenance site-data
display software	display maintenance software-log
display station	display station
display svn-button-location	display feature svn-button-location
display synchronization	display maintenance synchronization
display system-parameters cdr	display system cdr-parameters
display system-parameters country-options	display system country-parameters
display system-parameters customer-options	display system options
display system-parameters features	display system feature-parameters
display system-parameters hospitality	display system hospitality-parameters
display system-parameters maintenance	display system maintenance-parameters
display system-parameters multifrequency-signaling	display system mf-signaling-parameters
display system-parameters security	display system security-parameters
display system-parameters special-applications	display system guestworks-options
display term-ext-group	display group term-extensions

Table 10. Command Path Conversions - display

DEFINITY Commands	GuestWorks *server* Commands
display terminal-parameters	display system terminal-parameters
display test-schedule	display maintenance test-schedule
display time	display system time
display time-of-day	display network time-of-day
display toll	display network toll
display trunk-group	display group trunk
display vdn	display feature direct-access number
display vector	display feature direct-access procedure

Table 11. Command Path Conversions - list

DEFINITY Commands	GuestWorks *server* Commands
list abbreviated-dialing	list feature abbreviated-dialing
list aca-parameters	list feature aca-parameters
list access-endpoint	list network access-endpoint
list administered-connection	list network administered-connection
list ars	list network ars
list authorization-codes	list network authorization-codes
list bridged-extensions	list group bridged-extensions
list call-forwarding	list feature call-forwarding
list configuration	list system configuration
list cor	list restriction cor
list coverage	list group coverage
list data-module	list data-module
list disabled-MOs	list maintenance disabled-MOs
list do-not-disturb	list feature do-not-disturb
list eda-external-dev-alrm	list maintenance eda-external-dev-alrm
list emergency	list feature emergency
list extension-type	list feature extension-type
list group-of-extensions	list group extensions-category
list history	list maintenance history
list hunt-group	list group hunt
list integ-annc-brd-loc	list feature integ-annc-brd-loc
list intercom-group	list group intercom

Table 11. Command Path Conversions - list

DEFINITY Commands	GuestWorks *server* Commands
list intra-switch-cdr	list feature intra-switch-cdr
list isdn-testcall	list maintenance isdn-testcall
list logins	list maintenance logins
list marked-ports	list maintenance marked-ports
list mct-history	list system mct-history
list measurements	list feature measurements
list members	list group members
list modem-pool	list group modem-pool
list mst	list maintenance mst
list partitioned-group	list group partitioned
list performance	list maintenance performance
list personal-co-line	list group personal-co-line
list pickup-group	list group pickup
list pms-down	list maintenance pms-down
list pri-endpoint	list network pri-endpoint
list report-scheduler	list system report-scheduler
list route-pattern	list network route-pattern
list set-data	list feature set-data
list signaling-group	list maintenance signaling-group
list station	list station
list term-ext-group	list group term-extensions
list test-schedule	list maintenance test-schedule
list testcalls	list maintenance testcalls
list toll	list network toll
list trunk-group	list group trunk
list usage	list feature usage
list vdn	list feature direct-access number
list vector	list feature direct-access procedure
list wakeup	list feature wakeup

Table 12. Command Path Conversions - remove

DEFINITY Commands	GuestWorks *server* Commands
remove abbreviated-dialing	remove feature abbreviated-dialing
remove access-endpoint	remove network access-endpoint
remove administered-connection	remove network administered-connection
remove attendant	remove attendant
remove coverage	remove group coverage
remove data-module	remove data-module
remove ds1	remove maintenance ds1
remove eda-external-dev-alrm	remove maintenance eda-external-dev-alrm
remove hunt-group	remove group hunt
remove intercom-group	remove group intercom
remove login	remove maintenance login
remove modem-pool	remove group modem-pool
remove personal-co-line	remove group personal-co-line
remove prec	remove maintenance prec
remove pri-endpoint	remove network pri-endpoint
remove report-scheduler	remove system report-scheduler
remove second-digit	remove system dialplan second-digit
remove signaling-group	remove maintenance signaling-group
remove station	remove station
remove term-ext-group	remove group term-extensions
remove test-schedule	remove maintenance test-schedule
remove trunk-group	remove group trunk
remove vdn	remove feature direct-access number

Table 13. Command Path Conversions - miscellaneous

DEFINITY Commands	GuestWorks *server* Commands
busyout	execute busyout
cancel	execute cancel
clear	execute clear
disable	execute disable
download	server download
duplicate	server duplicate
enable	execute enable
erase	server erase
get	execute get
go	execute go
mark	execute mark
monitor	server monitor
recycle	execute recycle
refresh	server refresh
release	execute release
reset	execute reset
restore	server restore
resume	execute resume
rp	execute rp
rva	execute rva
save	server save
set	execute set
status	server status
test	execute test
upgrade	server upgrade
upload	server upload
wp	execute wp
wva	execute wva

Appendix B — Parts List

Table 14 shows many of the parts used with the GuestWorks *server*. Use this list as a reference if you need to order additional or replacement parts.

Table 14. Parts List

Part	Number
MAP/5 Equinox card	407009406; J1P260AA1, List 12
Equinox DTE 10/10 adapter, P/N:210068	406983155
IVC6 (AYC10) analog interface	106406580
6-pin modular cords, 3 ft.	ED5P208-30, Group 16

885A connector kit
  885A connecting block
  RJ11C 2-wire modular cords, 25 ft.
	601419666; ED5P90770, Group 1
	  106079270
	  103732582

103A connecting blocks	105164818

PI-to-IDI cable
  10 ft.
  25 ft.
  50 ft.
  100 ft.
  200 ft.
	
	H600-210, Group 1
	H600-210, Group 2
	H600-210, Group 3
	H600-210, Group 4
	H600-210, Group 5

IDI-to-GPSync card cable, 4.5 ft.	ED1E434-11, Group 175
GPSync card	406801647

D6AP 6-pin modular cord
  7 ft.
  14 ft.
  25 ft.
	
	102937620
	102937604
	102937588

D8W 8-pin modular cord
  7 ft.
  14 ft.
  25 ft.
	
	103786786 or 103786778
	103786802
	103786828

M25A cable, plug-to-receptacle
  5 ft.
  9 ft.
  25 ft.
  50 ft.
	
	102269602 or 846823649
	102269610 or 846823656
	102269628 or 846823664
	102269636 or 846823680

M25B cable, plug-to-plug
  4 ft.
  10 ft.
  25 ft.
  50 ft.
	
	102269669 or 846823706
	102269677 or 846823714
	102986643 or 846823722
	846823730

B25A distribution cable
  10 ft.
  15 ft.
	
	846300994
	846301000

Table 14. Parts List

Part	Number
Null modem	407122043
7400A data module	105558050
Comsphere 3820 modem	107560534
9-pin to 25-pin transition cable, 1 ft.	847106945; ED3G1115
RS232 Mini-Tester	407515139

Processor*
  TN786B
  TN796B
	
	107753931
	107885709

Network control, TN777B	106577422
Processor Interface, TN765	103557187

* The TN786B was the original processor used for GuestWorks, but it can be replaced with a TN796B if needed. If you receive a replacement processor card that does not have the GuestWorks software preloaded, obtain Crash Kit 37, which has the GuestWorks software.

Appendix C — Connector Pinouts

Connections from the Equinox card on the MAP/5 to the hospitality adjuncts (PMS or call accounting) can often cause problems. The following list gives you the pinouts and EIA leads provided when using a D6AP modular cord from the Equinox card to the Equinox 10/10 adapter (P/N:210068, comcode 406983155). These pinouts are on the 25-pin end of the adapter.

- Pin 2 - TD (transmit data)
- Pin 3 - RD (receive data)
- Pin 7 - GND (ground)
- Pin 8 - DCD (data carrier detect)
- Pin 20 - DTR (data terminal ready)

This arrangement of EIA is standard in the industry, but these pinouts may become valuable if the adjunct vendor needs to provide a special adapter to interface to this arrangement.

Appendix D — List PMS Down Events

Whenever an error occurs between the server and the PMS, a log of the event is kept on the server. The following is an example of some PMS down events and reasons.

```
list maintenance pms-down                                      Page   1
              PROPERTY MANAGEMENT SYSTEM ACTIVITY

Extension       Event             Reason              Date/Time
   2900         from room, code 1 active - nopms      18/20:10 PM
   3100         from sta., code 2 active - nopms      18/21:00 PM
   3344         checkout, MWL off PMS Link Out        18/21:25 PM
   3302         room check in     PMS Link Out        18/21:34 PM
   3320         PBX chng stn rstr active - nopms      18/22:00 PM
```

You can use these events to troubleshoot link problems or verify link events. If there is a log printer installed and administered on the server, these events are logged to that printer as they occur. If there is not a log printer, the **list maintenance pms-down** command displays the events that occurred on the server for the last 24-hours. The **list maintenance pms-down long** command displays the last 100 events that have occurred on the server, regardless of time frame. Table 15 is a listing of the events and their meanings, and Table 16 is a listing of the reasons and their meanings.

Table 15. PMS Down Events

Event	Meaning
checkin, occupied	Check in confirmed; room already occupied
checkout, MWL off	Check out confirmed; MWL off
checkout, MWL on	Check out confirmed; MWL on
checkout, vacant	Check out confirmed; room already vacant
cnf data link rel	Confirm data link release
end data swap	End of database exchange
from room, code 1	Housekeeping from room; process code 1
from room, code 2	Housekeeping from room; process code 2
from room, code 3	Housekeeping from room; process code 3
from room, code 4	Housekeeping from room; process code 4
from room, code 5	Housekeeping from room; process code 5
from room, code 6	Housekeeping from room; process code 6
from room, PMS acc	PMS accepts housekeeping status change from room
from room, PMS rej	PMS rejects housekeeping status change from room
from stn, code 1	housekeeping from station; process code 1
from stn, code 2	Housekeeping from station; process code 2

Table 15. PMS Down Events

Event	Meaning
from stn, code 3	Housekeeping from station; process code 3
from stn, code 4	Housekeeping from station; process code 4
from stn, PMS acc	PMS accepts housekeeping status change from station
from stn, PMS rej	PMS rejects housekeeping status change from station
gst info: complt	Guest info completed
gst info: no chg	Guest info no change
gst info: request	Guest info request
gst info: vacant	Guest info vacant
invalid PMS msg	Server received a message with either a bad feature code or process code
MWL, another type	PMS attempted clearing MWL
PBX chng stn rstr	Server change the station's restriction value
PBX cleared MWL	Server cleared a station's MWL
PBX enabled MWL	Server enabled a stations MWL
PBX room image	Server's room data image for synchronization
PMS chng stn rstr	PMS changes station's restriction value
PMS cleared MWL	PMS wants station's MWL cleared
PMS enabled MWL	PMS wants station's MWL enabled
PMS room change	Room change message from PMS
PMS room image	PMS's room data image for synchronization
PMS room swap	Room swap message from PMS
req data link rel	Request data link release
room checkin	Room check-in
room checkout	Server is to check-out room
room data request	Room data request
room data resp	Room data response
room ch/sw error	Room change/swap data error
start data swap	Start of database exchange
status inquiry	Status inquiry from PMS
status : OK	Status response: OK
status : PBX init	Status response: server-initiated
status : UC	Status response: uncommunicated changes

Table 16. PMS Down Reasons

Reason	Meaning
active-nopms	Feature is active, no PMS
PBX bfr ovfl	Server buffer overflow
PBX rej msg	Server rejected message
PMS link out	PMS link is out of service
PMS prot vio	PMS protocol violation
PMS rej msg	PMS rejected the message
rcv viol msg	Received violation message
viol:bad CP	Coverage path not between 0 and 600 or equal to a special code representing the "Default Coverage Path for Client Rooms"
viol:bad ext	Extension does not exist or does not have a client room COS
viol:bad fea	Invalid feature code
viol:bad fmt	Message format not correct (for example, 0xff characters or 0xf bytes not present where required)
viol:bad nm	At least one name character is invalid
viol:bad pro	Invalid process code for the associated feature code
viol:bad res	Invalid restriction level
xmt viol msg	Transmitted violation message

Appendix E — Server Capacities

The maximum capacities for the GuestWorks *server* hardware and software are shown in Table 17. The capacities that are highlighted in **bold** represent a value that is different from the Lucent Technologies G3s switch product. Some of these capacities can be viewed using the **display system capacity** command.

In addition, the following features are not available on the GuestWorks *server*: CallVisor ASAI, Automatic Call Distribution, Automatic Alternate Routing, Subnet Trunking, Uniform Dialing Plan, Centralized Attendant Service, Call Management System, Call Vectoring, Expert Agent Selection, and Partitions.

Table 17. Capacity Limits

Feature	Capacity
Abbreviated Dialing (AD)	
AD Lists Per Server	**400**
AD List Entry Size	24
AD Entries Per Server	2,000
Auto Dialing Button	
Entries per Server[a]	
Enhanced List (System List)	1
Maximum entries	2,000
Group Lists	100
Maximum entries	100
Group lists / extension	3
System List	1
Maximum entries	100
Personal Lists	**400**
Maximum entries	100
Personal lists / extension	3
Applications Adjuncts	
Asynchronous Links (RS232)	5
SMDR Output Devices	2
Journal:System Printer	2:1
Property Management Systems	1
BX.25 Physical Links	4
Application Processors (i.e., 3B2-MCS)	1
AUDIX Adjuncts	1
ICM Adjuncts (ISDN Gateway)	1
BX.25 Processor Channels	64
Hop Channels	64

Table 17. Capacity Limits

Feature	Capacity
ARS	
ARS Patterns	40
ARS Table Entries (NPA,NXX,RXX,HNPA,FNPA)	2,000
Choices per RHNPA Table	12
Digit Conversion Entries	400
ARS Digit Conversion	
Digits Deleted for ARS[b]	28
Digits Inserted for ARS	18
Entries in HNPA & RHNPA Tables	1,000
FRLs	8
Inserted Digit Strings[c]	450
Patterns for Measurement	20
RHNPA Tables	32
Routing Plans	8
Toll Tables	32
Entries per Toll Table	800
Trunk Groups in an ARS Pattern	6
TOD Charts	8
Attendant Service	
Attendant Consoles (day:night)	6:1
Attendant Console 100s Groups/Attendant	20
Attendant Control Restriction Groups	96
Other Access Queues	
Maximum Number of Queues	12
Maximum Number of Queue Slots	30
Size range of Reserved Queue	2-25
Reserved Queue Default Size	5
Queue Length	**100**
Switched Loops/Console	6
Authorization	
Authorization Codes	**300**
Classes of Restriction	96
Classes of Service	16
Length of Authorization Code	4-7
Length of Barrier Code	4-7
Length of Forced Entry Account Codes	1-15
Restricted Call List	1
Remote Access Barrier Codes	10
SMDR Forced Entry Account Code List	1
Toll Call List	1
Unrestricted/Allowed Call Lists	10
Total Call List Entries	1,000
Automatic Callback Calls	20

Table 17. Capacity Limits

Feature	Capacity
Automatic Wakeup	
Simultaneous Display Requests	10
Wakeup Requests per Server	**800**
Wakeup Request per Extension	1
Wakeup Requests per 15 minute Interval	150
Cabinets	
Inter-Port Network Connectivity	
Port Networks	1
Maximum Number of Port Networks/Cabinet	1
PPN	
SCC	4
CSCC	1
Call Appearances	
Bridged Images/Appearance	7
Call Appearances/Station[d]	54
Maximum Appearances per Extension	10
Minimum Appearances per Extension	0
Total Bridged Appearances	**800**
Maximum Simultaneous Off-Hook per Call[e]	5
Call Coverage	
Coverage Answer Groups (CAG)	10
Coverage Paths	**400**
Coverage Paths Included in Call Coverage Report	**15**
Coverage Path per Station	4
Coverage Points in a Path	3
Max Users/Coverage Path[f]	500
Members per CAG	8
Number of Coverage Paths for which each Station can be a member	300
Call Detail Recording	
CDRU Trackable Extensions	**800**
Intra-switch Call Trackable Extensions	100
Number of CDRUs/Server[g]	1
Maximum Number of CDR Records that can be Buffered in the Server	**500**
Number of Records Buffered for the Primary Output Device That Will Cause Secondary Device to be Busied Out for 2 Minutes	200
Call Forwarding (Follow-me)	
Call Forwarded Digits (off-net)	16
Call Forwarded Numbers	**800**
Call Park	
Attendant Group Common Shared Extension Numbers	10
Number of Parked Calls	180

Table 17. Capacity Limits

Feature	Capacity
Call Pickup Groups	
Call Pickup Members/Group	50
Call Pickup Members/Server	200
Number of Groups	**15**
Conference Parties	6
Simultaneous 3-way Conference Calls	161
Simultaneous 6-way Conference Calls	80
Data Parameters	
Alphanumeric Dialing	
Maximum entries	50
Characters/Entry	22
PRI Endpoints (PE)	25
Access Endpoints (Number of Trunks)	100
Digital Data Endpoints	75
Dial Plan	
DID LDNs	8
Extensions	**1000**
Feature Dial Access Codes	
Number of Access Codes	70
Number of Digits	1-4
Integrated Directory Entries[h]	**807**
Maximum Extension Size	5
Minimum Extension Size	1
Miscellaneous Extensions[i]	150
Names	
Number of names[j]	**1064**
Number of characters in a name	15
Non-DID LDNs	50
Prefix Extensions	Yes
Trunk Dial Access Codes	
Number of Access Codes	65
Number of digits	1-4
Direct Access Calling (New Feature)	
Number	4
Procedure	4
Steps per Procedure	32
Do Not Disturb (DND)	
DND Requests per Server	**800**
Simultaneous Display Requests	10
Facility Busy Indicators	
Buttons per Tracked Resource	100
Number of Indicators (Station and Trunk Groups)	**800**

Table 17. Capacity Limits

Feature	Capacity
Hunt Groups	
Announcements per Group	2
Announcements per Server	128
Groups	**12**
Group Members per Group	150
Group Members per Server	150
Queue Slots per Group	200
Queue Slots per Server	**120**
Intercom Translation Table (ICOM)	
Automatic/Manual and Dial	
ICOM groups per Server	10
Auto/Manual	10
Dial	10
Members per ICOM group	
Auto	32
Dial	32
Members per Server	320
Last Number Dialed	
Entries/Server[k]	**882**
Number of Digits	24
Leave Word Calling (Switch Based)	
Messages Stored	**800**
Messages per User	10
Simultaneous Message Retrievers	60
Server-wide Message Retrievers	10
Malicious Call Trace	
Maximum Simultaneous Traces	16
MLDN	
Via DID	8
Via CO	50
Modem Pool Groups	
Mode 2/Analog	
Group members per server	64
Number of groups	2
Members per group	32
Paging	
Code Calling IDs	125
Loudspeaker Zones	9
Personal CO Lines (PCOL)	
PCOL Appearances	4
PCOL Lines (Trunk Groups)	15
PCOL Trunks Per Trunk Group	1

Table 17. Capacity Limits

Feature	Capacity
Port Circuit Pack Slots[l]	
Per PPN	
SCC Standard Reliability	70
CSCC Standard Reliability	7
Recorded Announcements	
Analog and Auxiliary Trunk Announcements	
Queue Slots per Announcement	50
Queue Slots per Server	50
Calls Connected per Announcement	
Auxiliary Trunk	50
Analog Port	50
Integrated Announcements	
Integrated Announcement Circuit Packs	**5**
Channels per Integrated Announcement Circuit Pack	16
Calls Connected per Integrated Announcement	25
Recording Time (Minutes:Seconds)	
16KB recording	8:32
32KB recording	4:16
64KB recording	2:8
Integrated Queue Slots per Server	25
Total Recorded Announcements	128
Server Administration	
Number Of Logins	15
Admin History File Entries	50
Simultaneous Administration Command	1
Simultaneous Maintenance Command	1
Simultaneous SM Sessions	3
Printer Queue Size	50
Speech Synthesizer Circuit Packs	6
Channels per Speech Circuit Pack	4
Terminating Extension Groups (TEG)	
TEGs	32
Users That May Share a TEG	4
Time Slots	
Simultaneous Circuit-Switched Calls	180
Total Slots	512
Time Slots for Voice and Data	483
Time Slots per Port Network	512
Tone Classifiers	
Tone Receivers (General)[m]	200
TTR Queue Size	4
Prompting TTR Queue Size	80

Table 17. Capacity Limits

Feature	Capacity
Trunks	
DS1 Circuit Packs	**5**
Queue Slots for Trunks	64
PRI Interfaces via PI[n]	4
PRI Interfaces via PACCON	8
PRI Temporary Signaling Connections	
TSCs in Server	164
Call Associated TSCs	100
Non Call Associated TSCs	64
Administered TSCs	32
Ringback Queue Slots	64
Total PRI Interfaces[o]	8
Trunk Group Hourly Measurements	25
Trunk Groups in the Server	**16**
Trunk Members in a Trunk Group	99
Trunks in Server (including Remote Access)	**120**
Measured Trunks In Server	**120**
Voice Terminals[p]	
Associated Data Modules (e.g.,7400A)	75
BRI Stations[q]	50
Digital Stations[r]	200
Display Stations	200
Stations[r]	**800**
Station Button Capacity	**103,600**

a. There is no limit on the maximum number of auto dial buttons (other than the system limit on button capacity).

b. Plus up to seven inter-exchange carrier (IXC) digits.

c. This is the number of available 12 character inserted-digit-strings available for ARS preferences.

d. The number of call appearances is the sum of primary and bridged appearances; at most 10 can be primary. A maximum of 54 administrable buttons are supported for the 7434D terminal — 34 buttons in the basic terminal and an additional 20 buttons in the coverage module.

e. Does not apply to conferencing.

f. The maximum number of users per coverage path is equal to the number of extensions.

g. The CDRU adjunct capacity is 40,000 calls per hour.

h. The Integrated Directory Entries = Stations + Attendant Consoles.

i. Used for PCOL groups, common shared extensions, access endpoints, administered TSCs, code calling IDs, LDNs, hunt groups, announcements, and TEGs.

j. The Number of Names = number of stations + attendant consoles + trunk groups + digital data endpoints + miscellaneous extensions.

k. The Last Number Dialed Entries = Stations + Digital Data Endpoints + Attendant Consoles.

l. Only port slots are included in this count. There may be other service circuits required which would further reduce the number of port slots available.

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See notice on first page

m. The GuestWorks *server* will use the TN744 Call Classifier for basic TTR usage as well as call prompting/call classification/MFC. In addition, the TN2182 Tone/Clock/Detector will also be used for multiple tone detection functions. The number of TN748, TN420, or TN744 boards is limited only by the number of available slots, and the number of TN2182 boards is limited to one. There is a single limit on the total number of tone receiver (classifier) ports for the server: the TN748/TN420 have four ports for TTR use, the TN748/TN420 have two ports for GPTD use, the TN744 has eight ports for call prompting/call classification/MFC/TTR use, and the TN2182 has eight ports for call prompting/Call Classification/MFC/TTR use.

n. Only one Processor Interface (PI) board is supported, and therefore a total of four physical links (used for BX.25 or PRI) are available. PRI interface via the PI is not available in Germany. PRI via the PCCON must be used.

o. Since the SCC or CSCC can only support one PI board, a total of four physical links (used for BX.25 or PRI) is available. When using the PACCON, the limit bounded by the DS1 CP limit.

p. The following items detract from the total number of available "Stations" on a given server: analog music-on-hold, attendants, modem pool conversion resources, TAAS port, stations (digital, display, BRI, and so on), analog announcements, and analog external alarm port.

q. All BRI stations can be display stations.

r. Including extensions administered without associated hardware.

Appendix F — TN791 Characteristics

The TN791 analog port board is used for guest room analog telephone connections. The TN791 contains the circuitry to support many types of analog telephones, including most telephones used today in existing hotel sites that have neon or LED message lamps. The TN791 has the following characteristics:

- 16 ports

- Supports neon and LED Message Waiting indicators

- Feed voltage of -48V

- Supports hard bridging

- Supports station adjuncts

- Secondary lightning protection

- Same premises, out-of-building support

- Supports the 500-type, 2500-type, 7100-series, 8102-type, and 8110-type telephones

  The distance limit for the 500-type, 2500-type, and 7102A telephones is 20,000 feet. The distance limit for the 7101A and 7103A telephones is 15,200 feet. The distance limit for the 8100-series telephones is 12,000 feet. All distances are with 24-gauge wire.

- Ringer load of 3

- Supports simultaneous ringing on 8 ports

  The TN791 allows ringing on four ports of each half of the circuit pack for a maximum of eight simultaneous ports ringing. A user attempting to ring one half of the circuit pack when all four ports are busy receives a busy tone.

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