Hospitality Integrated Voice Services Fundamentals
Avaya Communication Server 1000

7.5
NN43001-559, 05.03
October 2011

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Contents

Chapter 1: New in this release

This technical document provides information about hospitality integrated voice services supported for the Communication Server 1000 Release 7.5.

Features

There are no updates to the feature descriptions in this document.

Other

Revision history

October 2011 Standard 05.03. This document is up-issued to support the removal of content for outdated features, hardware, and system types.

November 2010 Standard 05.02. This document is up-issued to support Avaya Communication Server 1000 Release 7.5.

June 2010 Standard 04.01. This document is up-issued to support Avaya Communication Server 1000 Release 7.0.

May 2009 Standard 03.01. This document is up-issued to support Communication Server 1000 Release 6.0.

December 2007 Standard 02.01. This document is up-issued for Communication Server 1000 Release 5.5.

June 2007 Standard 01.02. This document is up-issued to remove the Confidential statement.

May 2007 Standard 01.01. This document is issued to support Communication Server 1000 Release 5.0. This document contains information previously contained in the following legacy document, now retired: *Hospitality Integrated Voice Services: Service Implementation Guide (553-3001-359)*. No new content has been added for Communication Server 1000 Release

5.0. All references to Communication Server 1000 Release 4.5 are applicable to Communication Server 1000 Release 5.0.

September 2005 Standard 3.00. This document is up-issued to support Communication Server 1000 Release 4.5.

September 2004 Standard 2.00. This document is up-issued for Communication Server 1000 Release 4.0. Prior to CS 1000 Release 4.0, the title of this document was *Meridian Integrated Voice Services: Description, Installation, Administration, and Maintenance* (555-3001-103).

October 2003 Standard 1.00. This document is new for Succession 3.0. It was created to support a restructuring of the Documentation Library. This document contains information previously contained in the following legacy document, now retired: *Meridian Integrated Voice Services: Description, Installation, Administration, and Maintenance* (555-3001-103).

Chapter 2: Introduction

This document is a global document. Contact your system supplier or your Avaya representative to verify that the hardware and software described are supported in your area.

Subject

This document explains how to install, configure, administer, and maintain the Avaya Hospitality Integrated Voice Services card.

The Hospitality Integrated Voice Services card is an Intelligent Peripheral Equipment (IPE) card that provides the hospitality services of Automatic Wake Up (AWU) and Do Not Disturb (DND). Hospitality Integrated Voice Services allows a guest to order their own wake up call and set a DND order through a user-friendly series of voice prompts.

Note on legacy products and releases

This document contains information about systems, components, and features that are compatible with Communication Server 1000 software. For more information on legacy products and releases, click the **Technical Documentation** link under **Support & Training** on the Avaya home page:

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Applicable systems

This document applies to the following systems:

- Avaya Communication Server 1000M Single Group (Avaya CS 1000M SG)
- Avaya CS 1000M Multi Group (CS 1000M MG)
- Avaya Communication Server 1000E (Avaya CS 1000E)

Intended audience

This document is intended for individuals responsible for installing, configuring, administering, and maintaining the Hospitality Integrated Voice Services card.

Conventions

Terminology

In this document, the following systems are referred to generically as "system":

- CS 1000M
- CS 1000E
- Meridian 1

The following systems are referred to generically as "Large System":

- CS 1000M SG
- CS 1000M MG
- Meridian 1 PBX 61C
- Meridian 1 PBX 81C

Related information

This section lists information sources that relate to this document.

Publications

The following publications are referenced in this document:

- *Avaya Electronic Switched Network Reference: Signaling and Transmission Guidelines (NN43001-280)*
- *Avaya Features and Services Fundamentals (NN43001-106)*

- *Avaya Hospitality Features Fundamentals (NN43001-553)*
- *Avaya Software Input/Output Reference: System Messages (NN43001-712)*
- *Avaya Communication Server 1000E Planning and Engineering (NN43041-220)*

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Chapter 3: Description

Contents

This section contains information on the following topics:

Introduction

Hospitality Integrated Voice Services lets a guest in a hotel, hospital, or other facility order Automatic Wake Up (AWU) and Do Not Disturb (DND) services from their room telephone. Hospitality Integrated Voice Services lets staff order AWU and DND services for guests. To order AWU and DND, guests and staff dial into a Telephone User Interface (TUI). The TUI offers a user-friendly, interactive menu system.

Guest and staff operation

To order AWU or DND service, a guest dials either the AWU or the DND access DN, whichever is appropriate. The Hospitality Integrated Voice Services TUI prompts the guest to enter the

appropriate information using the telephone keypad. If the request is successful, the Hospitality Integrated Voice Services TUI provides an audio confirmation message. The guest dials the same DN at any time to modify or cancel the request.

Note:

Guests cannot customize TUI greetings.

The staff can order AWU or DND service at the guest's request. The staff dials the staff-access DN and enters a password using the telephone keypad. The Hospitality Integrated Voice Services TUI gives the staff member the option of ordering either AWU or DND for a guest. Hospitality Integrated Voice Services also gives the staff the option of customizing the TUI greetings that guests hear. After the staff orders AWU or DND, Hospitality Integrated Voice Services prompts the staff to enter the guest's telephone number. The staff then orders the service in the same way a guest does. The staff can also dial into the TUI to modify or cancel the requested service.

Administration

The administrator determines the DNs for AWU, DND, and staff access by programming Automatic Call Distribution (ACD) queues. The administrator must also enter these access DNs, as well as other parameters, through a Browser User Interface (BUI). The administrator accesses the BUI from a web browser on any PC that has a connection to the customer's LAN. After initial configuration, Hospitality Integrated Voice Services requires little, if any, ongoing administration. Ongoing administration includes fine-tuning certain parameters, upgrading the Hospitality Integrated Voice Services software, and changing the number of ports (simultaneous callers) that Hospitality Integrated Voice Services supports.

System options

Hospitality Integrated Voice Services offers 2-, 4-, and 8-port options. The option selected depends on the number of rooms (or guests) that Hospitality Integrated Voice Services must serve. Each port serves one caller at a time; therefore, an 8-port Hospitality Integrated Voice Services option can serve eight simultaneous callers.

Note:

Avaya recommends the 2-port option for facilities with up to 200 rooms, the 4-port option for up to 500 rooms, and the 8-port option for up to 1,000 rooms.

Figure 1: Hospitality Integrated Voice Services in the system on page 15 shows the position of Hospitality Integrated Voice Services in the system.

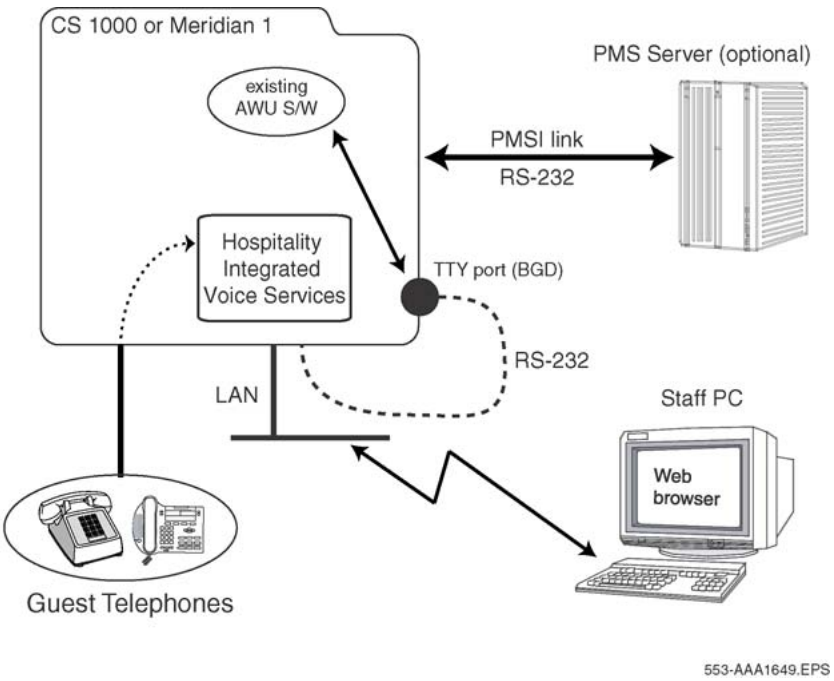

Figure 1: Hospitality Integrated Voice Services in the system

The Hospitality Integrated Voice Services card can be installed in the following:

- Intelligent Peripheral Equipment (IPE) shelf
- Avaya CS 1000 Media Gateway 1000E (Avaya MG 1000E)

The Hospitality Integrated Voice Services card connects to the background (BGD) terminal through an RS-232 interface. The card sends AWU and DND requests to the AWU and DND software through the BGD terminal. Hospitality Integrated Voice Services does not affect AWU and DND functionality, with one exception: AWU Flexible Feature Codes (FFCs) cannot be used with Hospitality Integrated Voice Services.

Hospitality Integrated Voice Services does not affect the setup of the Property Management System (PMS) server. The PMS server provides room status updates to the system, including the guest's language preference. Hospitality Integrated Voice Services retrieves this information from the system when a caller dials into the Hospitality Integrated Voice Services.

Additional features

Hospitality Integrated Voice Services includes the following additional features:

- occupies one IPE card slot
- software-transparent (the voice units emulate an M2616 digital telephone)
- TCP/IP connectivity over Ethernet 10BaseT

- multi-language voice prompts (Hospitality Integrated Voice Services retrieves the language preference from the system through the BGD terminal)
- keycode and dongle protection of the following resources:
  - Hospitality Integrated Voice Services firmware release
  - number of ports
  - languages configured
- A-Law and m-Law support
- time and date (in the firmware) synchronize with the system
- uses files on PC Card for:
  - firmware loads
  - voice files
  - system configuration data
- BUI on embedded web server for certain administration tasks
- customization of greetings through the TUI

Functional description

The Hospitality Integrated Voice Services card contains 2-, 4-, or 8-port options to handle two, four, or eight simultaneous callers. Each access DN is an agentless ACD queue that uses the Night Call Forward (NCFW) feature to transfer the caller to the main ACD card queue. The ports are the agents of the main ACD queue. Figure 2: Dial access to Hospitality Integrated Voice Services on page 17 illustrates a graphical representation of this process.

An additional agentless ACD queue can be configured to which Hospitality Integrated Voice Services directs guests following AWU and DND requests. The additional ACD queue is configured as a service menu.

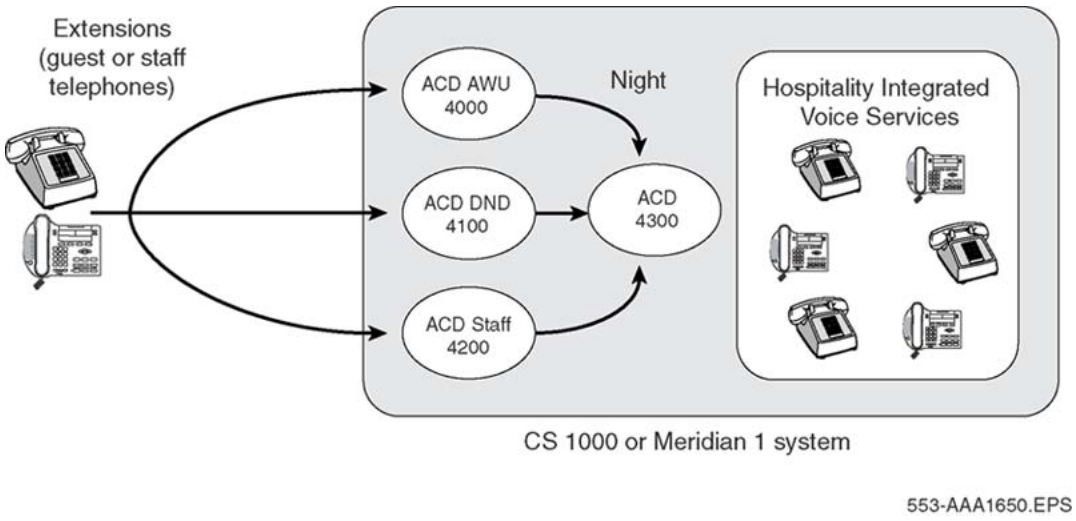

Figure 2: Dial access to Hospitality Integrated Voice Services

Note:

The DNs in Figure 2: Dial access to Hospitality Integrated Voice Services on page 17 represent examples only.

When a guest calls AWU or DND, the call is redirected to the Hospitality Integrated Voice Services ports. Hospitality Integrated Voice Services retains calling information as the call moves from queue to queue. When a call enters a Hospitality Integrated Voice Services port, information is available about the calling DN (which guest placed the order) and the called DN (which service). Hospitality Integrated Voice Services provides information to the guest regarding the current status of wake-up requests. The information is retrieved by Hospitality Integrated Voice Services through the BGD port, and the process can take up to a few seconds, during which the guest must wait. Therefore, the guest hears a few seconds of ringback tone until the information is retrieved and the guest receives the prompts for the requested service.

After dialing the appropriate DN and being directed to the ACD queue, the guest receives the requested service.

Each service is configured as an ACD DN. As well, the staff is assigned an ACD DN. Calls coming to one of the services are transferred to the ACD serving the Hospitality Integrated Voice Services cards, and the user is prompted for responses.

Background Terminal Facility

Hospitality Integrated Voice Services connects to the system through a BGD Serial Data Interface (SDI) port. Hospitality Integrated Voice Services does not actually make the AWU and DND reservations for the guests; it simply transfers the requests to the system through the Background Terminal Facility. The system makes the reservations through its existing AWU and DND software. The system then returns confirmations of the services to the guests through the BGD terminal and Hospitality Integrated Voice Services.

The system save all AWU, DND, and other relevant information for the guests. When a guest or staff dials into Hospitality Integrated Voice Services to request AWU or DND service, Hospitality Integrated Voice Services retrieves this information from the system through the BGD terminal.

For more information about the BGD terminal, refer to *Avaya Hospitality Features Fundamentals (NN43001-553)*.

Security

Hospitality Integrated Voice Services uses a keycode to control access to the features. Hospitality Integrated Voice Services uses industry-standard PC Cards as the software medium. The keycode restricts all upgrades of either port capacity or application software to a specific Hospitality Integrated Voice Services card. Avaya accurately tracks the keycodes to allow for satisfactory handling of field repairs and incremental upgrades. The Hospitality Integrated Voice Services card must be disabled for all upgrades, backups, or restores.

A keycode is necessary for the following upgrades:

- Port capacity upgrades
- Feature enhancements
- New applications

A keycode is not necessary for the following upgrades:

- Backup and restore operations
- Application patching/bug fixes

Avaya provides the customer with a keycode to enable installation of any upgrade. The keycode is entered through the Command Line Interface (CLI) under the **Functionality Upgrade** menu. The keycode is 24 characters in length and is entered in three sets of eight digits each, called keycode1, keycode 2, and keycode 3.

Keycodes can enable additional functionality within an existing application (such as adding ports and features) or can accompany a PC Card to provide new software or pre-recorded announcements.

Hospitality Integrated Voice Services capacity expansion

Each Hospitality Integrated Voice Services card can be configured to provide two, four or eight ports. To activate a different number of ports than are currently active, follow the steps in Changing the number of active ports on page 19.

Changing the number of active ports

1. Disable the Hospitality Integrated Voice Services card in LD 32.
2. Enter the CLI.
3. Select the **Functionality Upgrade** menu.
4. Select **Modify** to change the maximum number of ports available.
5. Select **Save** to save the changes.
6. Enable the Hospitality Integrated Voice Services card in LD 32.

After saving the changes, enter the correct keycode that enables the changes to take effect. The keycode is 24 characters long, Enter it in three sets of eight digits each (keycode1, keycode2, and keycode3). Refer to Functionality Upgrade on page 81 of this document for details.

External memory expansion, new voice announcements, and firmware upgrades occur by inserting a PC Card into the top PC Card slot on the Hospitality Integrated Voice Services card faceplate. Refer to Software upgrade on page 82 for details.

Physical description

The Hospitality Integrated Voice Services card emulates an Extended Digital Line Card (XDLC) and communicates with the system through a BGD port. The Hospitality Integrated Voice Services card can be installed into any IPE card slot. The Hospitality Integrated Voice Services card is shown in Figure 3: Hospitality Integrated Voice Services card on page 20.

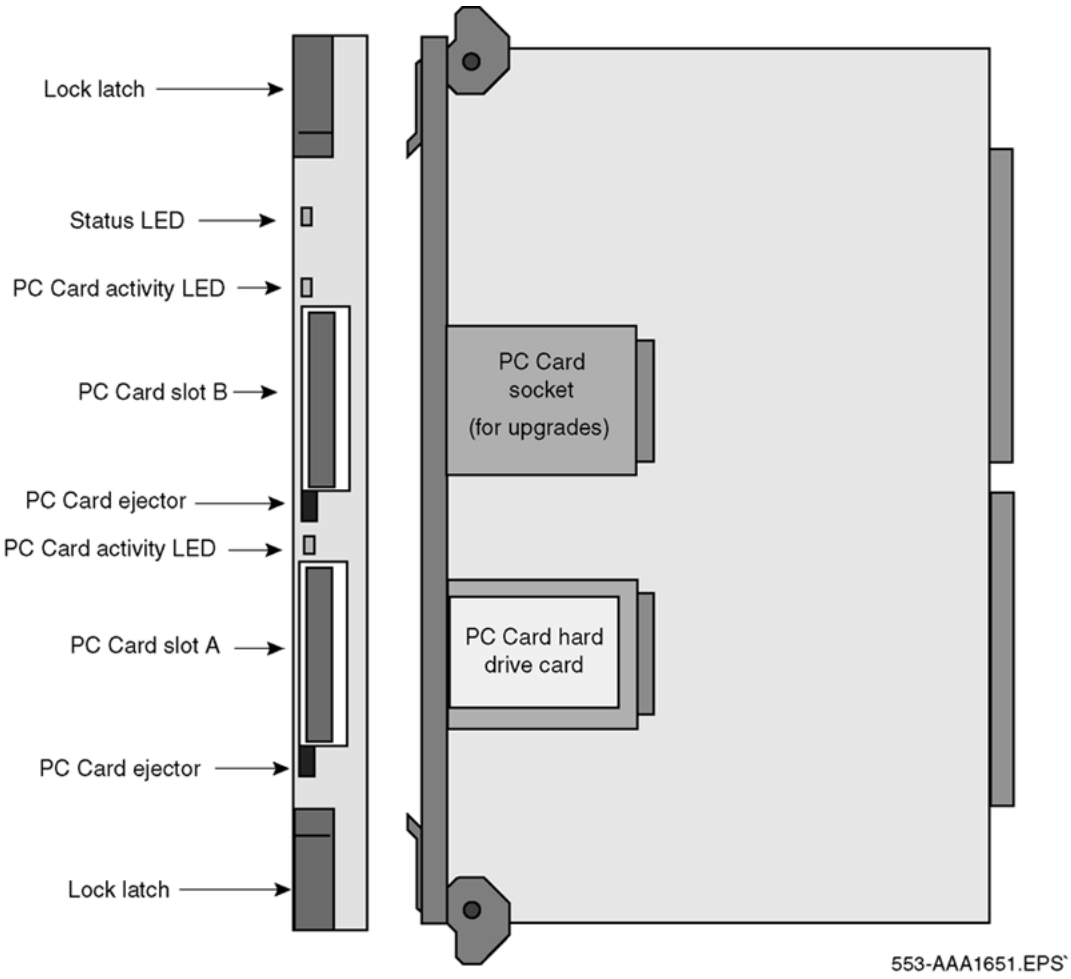

Figure 3: Hospitality Integrated Voice Services card

Faceplate description

This section describes the Hospitality Integrated Voice Services card faceplate characteristics.

Card LED

The Hospitality Integrated Voice Services card faceplate provides a red card LED to indicate the status of the card. The card LED also indicates the card's self-test results during power-up or insertion into an operating system. The LED indicates the following:

- The LED is ON when the Hospitality Integrated Voice Services card is disabled.
- The LED is OFF when the Hospitality Integrated Voice Services card is enabled and ready for use.
- The LED blinks three times and stays ON (until it is software-enabled) when the Hospitality Integrated Voice Services card has successfully completed the self-test.

Type II/III PC Card slots

The Hospitality Integrated Voice Services card faceplate provides two Type II/III PC Card slots that hold the PC Cards. The lower slot (drive A:) houses the hard drive PC Card that stores voice prompts and firmware code. Use the upper slot (drive B:) to upgrade the firmware and make backups, when necessary. The hard drive PC Card must remain in drive A: for continuous Hospitality Integrated Voice Services operation. Drive B: is normally empty.

PC Card activity indicator LEDs

The PC Card activity indicator LEDs are next to the PC Card slots and indicate the following:

- The LED is ON when the PC Card is disabled.
- The LED is OFF when the PC Card is enabled and ready for use.
- The LED blinks when the PC Card is in use.

Backplane connections through the Ethernet adapter

An Ethernet interface on the Hospitality Integrated Voice Services card is available at the I/O panel by installing the Ethernet adapter. See Figure 4: NT5D52BC Ethernet adapter on page 22 and Figure 5: NT5D52AC Ethernet adapter on page 23.

This adapter provides an Ethernet RJ-45 connector and a DB-9 connector. The RJ-45 connector provides multiple terminal access to the Hospitality Integrated Voice Services card (either from the CLI or the BUI) through the LAN. The DB-9 connector provides serial connections to a maintenance terminal and a BGD terminal. There are two versions of the Ethernet adapter:

1. NT5D52BC Universal MIxx Ethernet Adapter for Media Gateways
2. NT5D52AC Universal MIxx Ethernet Adapter (for IPE Modules)

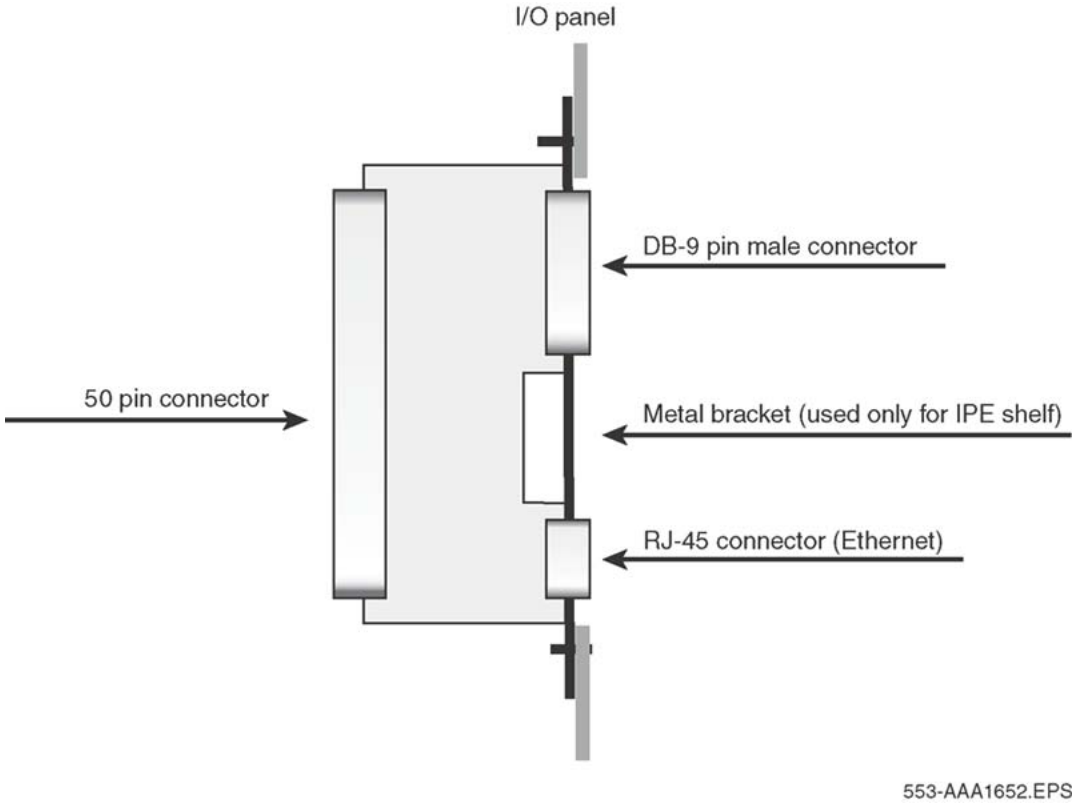

Figure 4: NT5D52BC Ethernet adapter

For more information, see Table 5: Hospitality Integrated Voice Services hardware list on page 30 and Access to the BUI on page 32.

Note:

If there is no LAN at the site, connect the PC to the Ethernet Adapter using a standard RJ-45 cross-over cable. Refer to Figure 6: The Ethernet adapter and the NTBK48AA cable on page 49 on Figure 6: The Ethernet adapter and the NTBK48AA cable on page 49 and Table 16: RJ-45 cross-over (Ethernet) cable pinouts on page 50 on Table 16: RJ-45 cross-over (Ethernet) cable pinouts on page 50.

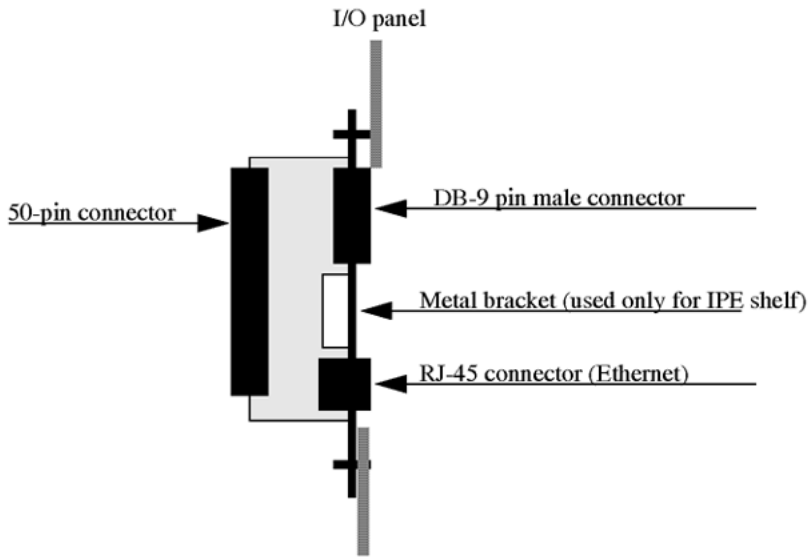

Figure 5: NT5D52AC Ethernet adapter

Chapter 4: Engineering guidelines

Contents

This section contains information on the following topics:

Introduction

The general system engineering guidelines are described in , *Communication Server 1000M and Meridian 1: Large System Planning and Engineering* NN43021-220, and *Avaya Communication Server 1000E Planning and Engineering* NN43041–220.

The following information deals specifically with engineering guidelines for the Hospitality Integrated Voice Services planning and implementation.

Hospitality Integrated Voice Services real-time impact

The Hospitality Integrated Voice Services real-time impact on the system compares to a Digital Line Card (DLC). For more information about real-time impact, refer to, *Communication Server 1000M and Meridian 1: Large System Planning and Engineering (NN43021-220)*, and *Avaya Communication Server 1000E Planning and Engineering (NN43041-220)*.

System software engineering

Each Hospitality Integrated Voice Services port (up to eight) emulates a digital telephone assigned to an ACD agent. All ports on a Hospitality Integrated Voice Services card belong to an ACD queue controlled by the ACD DN assigned to that specific Hospitality Integrated Voice Services card. Hospitality Integrated Voice Services routes guests and staff who dial the access DNs to the ACD queue.

Packaging requirements

The system requires the following software packages for correct Hospitality Integrated Voice Services operation:

- Automatic Call Distribution, Package A (ACDA) package 45
- Automatic Call Distribution, Package B (ACDB) package 41
- M2000 Digital Sets (DSET) package 88
- End-to-End signaling (EES) package 10
- Recorded Announcement (RAN) package 7
- Do Not Disturb Individual (DNDI) package 9
- Control Class of Service (CCOS) package 81
- Background Terminal (BGD) package 99
- Room Status (RMS) package 100
- Automatic Wake Up (AWU) package 102
- Property Management System Interface (PMSI) package 103 (required only if customer uses PMS)
- Multi-Language Wake Up (MLWU) package 206 (if multiple-language operation required)

System resource and network requirements

The use of system ACD resources must be considered. If applicable, review Licenses for the specific system option. Each Hospitality Integrated Voice Services card requires the following system resources:

- four or five ACD DNs and their associated queue and data block
- access DNs
  - three agentless ACD queues for AWU, DND, and staff access
  - an optional agentless ACD for a special services menu (for example, Avaya CallPilot)
  - one ACD queue with up to eight agents
- a digital set block, TN, and DN for each port, up to a maximum of eight. (The DN is used for out-dialing and does not need to be available for Direct Inward Dialing [DID].)
- PMSI (only if using a Property Management System [PMS])
- SDI/TTY port for the BGD terminal

Subtract these resources from the overall system resources. These resources cannot be used for any other application as long as they are for Hospitality Integrated Voice Services use.

Note:
If using agent IDs on the system, remember that Hospitality Integrated Voice Services must use successive agent IDs (for example, 3000–3007 for eight agent IDs). Ensure that a suitable block of agent IDs is available before assigning the IDs.

The Hospitality Integrated Voice Services card requires an IP address for administration and configuration purposes.

Licenses

License calculations must consider the following:

- Hospitality Integrated Voice Services adds four or five ACD queues per card.
- Hospitality Integrated Voice Services adds up to eight ACD agents per card, corresponding to the number of Hospitality Integrated Voice Services ports on each card.
- Hospitality Integrated Voice Services can use an Avaya CallPilot agent for the optional special services menu.

System hardware engineering

Hospitality Integrated Voice Services cards are available in port-size options of 2, 4, and 8 ports. Each card requires one slot in an IPE shelf, and Avaya CS 1000 Media Gateway 1000E

(Avaya MG 1000E). Table 1: Recommended port-size option for various facility sizes on page 28 lists recommended port-size options for various facility sizes that Hospitality Integrated Voice Services must serve.

Table 1: Recommended port-size option for various facility sizes

Size of facility	Recommended number of ports
1–200 rooms	2
201–500 rooms	4
501–1000 rooms	8

System compatibility

Hospitality Integrated Voice Services is supported on all systems.

For NT8D37 IPE modules, use slots 0, 4, 8, and 12.

Note:

The NT8D37 AA/BA/DC/EC IPE module is connected using 12 cables, so that the cabling of this shelf requires the use of only slots 0, 4, 8, and 12. When slot 0, 4, 8, or 12 is used, the port in the next slot cannot be used. Any card that is in the next slot, that is, slot 1, 5, 9, or 13, cannot use the first half of its slots.

The maximum number of Hospitality Integrated Voice Services cards per system is one.

Hospitality Integrated Voice Services cards require access to a customer LAN. The Hospitality Integrated Voice Services card connects to the LAN through the Ethernet adapter at the I/O panel. The administrator configures access DNs and other parameters through a web server.

Environmental requirements

The environmental requirements for the Hospitality Integrated Voice Services card must meet or exceed the overall system requirements. Table 2: Environmental requirements on page 28 lists the operating and storage environmental specifications. Ideally, the system should operate in a stable environment at 22¡ C (72¡ F). However, the system is designed to operate in the temperature and humidity ranges that Table 2: Environmental requirements on page 28 specifies.

Table 2: Environmental requirements

Condition	Environmental specifications
Operating temperature	0¡ to 40¡ C (32¡ to 104¡ F)

Condition	Environmental specifications
Operating relative humidity	5% to 90% non-condensing
Operating altitude	3,048 meters (10,000 feet) maximum
Storage temperature	-40¡ to 70¡ C (-40¡ to 158¡ F)
Storage relative humidity	20% to 55% non-condensing

Power requirements

The IPE module power supply (AC or DC) provides power to the Hospitality Integrated Voice Services card. See Table 3: Hospitality Integrated Voice Services card power requirements on page 29 for a display of the Hospitality Integrated Voice Services power requirements. Also refer to , *Communication Server 1000M and Meridian 1: Large System Planning and Engineering (NN43021-220)*, and *Avaya Communication Server 1000E Planning and Engineering (NN43041-220)*.

Table 3: Hospitality Integrated Voice Services card power requirements

Voltage	Source	Current
+5 V	Backplane	3.0 A
+15 V	Backplane	0.1 A
Total maximum power		16.5 W

Power budgeting

The maximum IPE module power budget is 30 watts per slot. To allow for thermal effects, it is best to budget no more than 20 watts per slot. The Hospitality Integrated Voice Services card does not exceed the power allocated for each card slot in the IPE module. Because of interaction with the PMS system, only one Hospitality Integrated Voice Services card can be installed per system.

Note:

For Avaya Communication Server 1000 (Avaya CS 1000) systems, refer to the Avaya CS 1000 Planning and Engineering documents to determine how many cards are supported, depending on DSP requirements.

Transmit/receive analog signal levels

Table 4: Voice signal level specifications on page 30 lists the transmit and receive analog signal levels as measured at the transmitter output and receiver input in the Hospitality Integrated Voice Services card.

Table 4: Voice signal level specifications

Signal Direction	Minimum Power	Maximum Power
Transmit signal	-55 dBm0	0 dBm0
Receive signal	-55 dBm0	0 dBm0

Note:
For other signal characteristics, refer to *Transmission Parameters (NN43001-282)*.

Hospitality Integrated Voice Services card hardware engineering

Table 5: Hospitality Integrated Voice Services hardware list on page 30 lists the hardware components necessary for Hospitality Integrated Voice Services card operation in the CS 1000 and Meridian 1 systems.

Table 5: Hospitality Integrated Voice Services hardware list

Component	Description
NT5G15 Hospitality Integrated Voice Services card	An IPE card that provides AWU and DND reservation services for up to eight simultaneous callers. (The NT5G15 Hospitality Integrated Voice Services card, Security Device, Ethernet adapter, and hard drive PC Card make up the NT5G04 package in North America.)
Hard drive PC Card (NT5G33 in North America)	Contains the Hospitality Integrated Voice Services software and configuration. The PC Card must reside in the lower PC Card drive of the Hospitality Integrated Voice Services card for Hospitality Integrated Voice Services to operate.
Voice Services NT5D52AC Ethernet adapter (for IPE module installation)	Attaches to the IPE module to provide connections from the Hospitality Integrated Voice Services card to the LAN and terminals.
Hospitality Integrated Voice Services NT5D52BC Ethernet adapter (for Cabinet system installation)	Attaches to the cabinet's tip/ring connector to provide connections from the Hospitality Integrated Voice Services card to the LAN and terminals.
NTBK48AA cable	Attaches to the DB-9 connector of the Ethernet adapter to provide a connection to the maintenance and BGD terminals.

Component	Description
RS-232 cable (customer-provided)	Provides an extension from the NTBK48AA cable to the maintenance or BGD terminal.
RJ-45 cable (customer provided)	Attaches to the RJ-45 connector of the Ethernet adapter to provide a connection to the customer's LAN.
RJ-45 cross-over cable (customer-provided)	Attaches to the RJ-45 connector of the Ethernet adapter to provide a connection to the customer's PC if there is no LAN at the site.
NT5G96 20 MB PC Card Flash card	Used for software upgrades and backups.

BGD terminal

Hospitality Integrated Voice Services uses a BGD terminal to make AWU and DND requests to the system for the guest. The system handles these requests through its existing AWU and DND software. For more information about the BGD terminal, see *Avaya Hospitality Features Fundamentals (NN43001-553)*.

Access to the CLI

The CLI is used to configure initial Hospitality Integrated Voice Services card parameters and perform certain maintenance and upgrade procedures. The CLI is accessed through a maintenance (VT100 or a PC that emulates VT100) terminal. Configure the maintenance terminal with the following parameters:

- transmission rate: 9600 bps
- data bits: 8
- stop bits: 1
- parity: no
- flow control: none

Note:
Never use X-On/X-Off flow control, as flow control is hard-wired.

Note:
Configure the BDG terminal SDI port as DTE.

After the Hospitality Integrated Voice Services card LAN parameters are configured and the card connected to the LAN, the card can be accessed by Telnet from any PC on the network that emulates a VT100 terminal.

Access to the BUI

Guest and staff access parameters are configured through the BUI. The BUI is provided by the Hospitality Integrated Voice Services PC Card. Access to the BUI is made only through the intranet with a web browser on a PC.

LAN characteristics

Ethernet implementation over the Hospitality Integrated Voice Services card has the following LAN characteristics:

- The Hospitality Integrated Voice Services card Ethernet connection is separated from the external LAN traffic by a firewall.
- The Ethernet adapter options for the Hospitality Integrated Voice Services card are:
  - NT5D52AC for the IPE module
  - NT5D52BC for Media Gateway or Media Gateway Expander
- The network administrator assigns the IP address for the Hospitality Integrated Voice Services card using the CLI during initial configuration.

Web server characteristics

The web server houses the BUI and already resides on the Hospitality Integrated Voice Services card. Setting up the embedded web server is simple and does not require any external equipment. Assign an IP address to the Hospitality Integrated Voice Services card and access the web server by pointing a web browser to the IP address.

Web browser characteristics

The BUI requires one of the following web browsers on a PC:

- Netscape Navigator 4.5 (or later)
- Microsoft Internet Explorer 4.01 (or later) with Service Pack 1 (SP1)

To access the BUI, open a web browser and enter the address of the Hospitality Integrated Voice Services card web server in the URL field.

Access to the TUI

Guests and staff use the TUI to order AWU, DND, and staff services. To access the TUI, use any Dual-Tone Multi-Frequency (DTMF) telephone in the telephone system. The TUI provides a simple DTMF menu-driven system for ordering AWU, DND, and staff services.

For TUI access, the administrator must designate access DNs in both the BUI and the system software.

Chapter 5: Installation and configuration

Contents

This section contains information on the following topics:

Introduction

The following sections provide an overview of the procedures for configuring the system software and installing the hardware for the Hospitality Integrated Voice Services card.

System software configuration task summary list

To configure the system software for a Hospitality Integrated Voice Services card, perform the following tasks:

1. Define a BGD terminal port in LD 17. See LD 17: Define the BGD terminal port on page 40.
2. Define DND call treatment for the system in LD 15. See LD 15: Define DND call treatment for the system on page 41.
3. Define an ACD data block in LD 23. This defines the ACD DN that was assigned to the Hospitality Integrated Voice Services card in Step 5. SeeLD 23: Define the ACD data block on page 42.

   Note:
   If ACD agent IDs are used, remember to reserve a range of agent ID numbers for the Hospitality Integrated Voice Services ports.
4. Define the three access DNs (the AWU DN, DND DN, and Staff DN) in LD 23. These are three ACD queues with no agents. Set the Night Call Forward (NCFW) DN for each access DN to the ACD DN of the Hospitality Integrated Voice Services card. See LD 23: Define the access DNs on page 43.
5. Define each Hospitality Integrated Voice Services port as an M2616 digital telephone in LD 11. See LD 11: Define Hospitality Integrated Voice Services ports as digital telephones on page 43. Define the Hospitality Integrated Voice Services

ports as ACD agents in the ACD data block. Define the digital telephone keys as follows:

- Key 0: ACD with the ACD DN, CLI, and position ID
- Key 1: Single Call Non-Ringing (SCN) with a dedicated DN
- Key 2: Not Ready (NRD)
- Key 3: Make Set Busy (MSB)
- Key 4: Call Transfer (TRN)
- Key 5: Three-Party Conference (AO3)
- Key 10: Display

6. Define the service DN in LD 23. See LD 23: Define the service DN (optional) on page 44. This step is optional, but necessary if it is desired to automatically transfer the guests to either Avaya CallPilot services or an attendant after they order AWU or DND service. Configured the NCFW prompt to the Avaya CallPilot DN and ensure that the queue is in night service.
7. Configure Incoming Call Indicator (ICI) keys.

Hospitality Integrated Voice Services card installation and configuration summary

To install the hardware for Hospitality Integrated Voice Services, perform the following tasks:

1. Take inventory of the Hospitality Integrated Voice Services equipment by comparing the received equipment against the shipping documents. Ensure that the security device is in place in the Hospitality Integrated Voice Services card.
2. Identify the card slot in the IPE card slot where the Hospitality Integrated Voice Services card will be installed.
3. Install the NT5D52AC Ethernet adapter onto the IPE module I/O panel or the NT5D52BC into the Avaya Communication Server 1000M (Avaya CS 1000M) Cabinet tip/ring connector cutout. Installing an Ethernet adapter onCabinet tip/ring connector on page 47
4. Install the Hospitality Integrated Voice Services card in the designated card slot. For available card slot locations, see Table 1: Recommended port-size option for various facility sizes on page 28.
5. Connect a VT100 terminal (or a PC emulating a VT100 terminal) to the Hospitality Integrated Voice Services card through the Ethernet adapter and NTBK48AA cable. See Connect the Hospitality Integrated Voice Services card to the maintenance terminal on page 51 and select the appropriate connection option based on the system requirements. See also Configure the maintenance terminal on page 57.

6. At the VT100 terminal, enter the keycodes for the Hospitality Integrated Voice Services cards. See Functionality Upgrade on page 81 for keycode entry. See also Entering keycode information on page 58.

   Note:
   VT100 connection is only required for initial configuration. After the keycode and network address information is entered, the Hospitality Integrated Voice Services card can be accessed using Telnet or a similar application.

7. Still at the VT100 terminal, log into the CLI (login name = user) and configure the IP address, subnet mask, and gateway address for the Hospitality Integrated Voice Services card. After this, restart the Hospitality Integrated Voice Services card. Configuring LAN parameters for a direct connection to a PC on page 59
8. Connect the Hospitality Integrated Voice Services card to the LAN through the RJ-45 connector on the Ethernet adapter.
9. Connect Hospitality Integrated Voice Services RS-232 port to the system BGD.
10. Verify that the hard drive PC Card is installed and properly seated.
11. At the system terminal, access LD 32 to enable the Hospitality Integrated Voice Services card (ENLC l s c, where l is the loop, s is the shelf, and c is the card).

    Note:
    For Avaya CS 1000 systems, the enable command is ENLC s c, where s is the shelf and c is the card.

12. From the web browser on a PC, enter **`http://<card IP address>/MIVS_bui.htm`** to access the Hospitality Integrated Voice Services BUI, where <card IP address> is the IP address of the Hospitality Integrated Voice Services card that was configured in Step 7.
13. Log into the BUI (user name = **`admin`** and password = **`000000`**) and enter the appropriate information. See Configuring Hospitality Integrated Voice Services card administration parameters in the BUI on page 60.

LD 15: Program ICI keys for Hospitality Integrated Voice Services

In some cases, Hospitality Integrated Voice Services transfers the guest to operator assistance (attendant console). It is **optional** to define Incoming Call Indicators (ICI) to identify the call type (MIVS call). See Table 6: LD 15: Configure ICI on page 38 below and Table 7: LD 15: Define LDN for ICI on page 39.

Table 6: LD 15: Configure ICI

Prompt	Response	Description
REQ	CHG	Change data

Prompt	Response	Description
TYPE	ATT_DATA	Attendant Console options
CUST	xx	Customer number as defined in LD 15
OPT	IC1 IC2	Options One Incoming Call Indicator key/lamp strip Two Incoming Call Indicator key/lamp strips
ICI	0–19 LDx	Attendant Incoming Call Indicators for listed directory number, where x = 0 – 9 if OPT is ICI x= 0 – 19 if OPT is IC2
Note: The Hospitality Integrated Voice Services administrator can define ICI as LDN.		

Define LDN for ICI as described below.

Table 7: LD 15: Define LDN for ICI

Prompt	Response	Description
REQ	CHG	Change data
TYPE	LDN_DATA	Departmental Listed Directory Numbers
CUST	xx	Customer number as defined in LD 15
OPT	NLDN (XLDN)	Options Network-side LDN allowed Network-side LDN denied
DLDN	(NO) YES	Departmental Listed Directory Numbers
LDN0	xxxx	Listed Directory Number 0
LDA0	1–63 ALL	Attendant console associated with LDN 0
LDN1	xxxx	Listed Directory Number 1
LDA1	1–63 ALL	(Attendant console associated with LDN 1)
...		
LDN5	xxxx	Listed Directory Number 5
LDA5	1–63 ALL	Attendant console associated with LDN 5
ICI	xx LD0	Attendant Incoming Call Indicator for Listed Directory Number 0, where xx = 0-19
	xx LD1	Attendant Incoming Call Indicator for Listed Directory Number 1, where xx = 0-19
	...	

Prompt	Response	Description
	xx LD5	Attendant Incoming Call Indicator for Listed Directory Number 5, where xx = 0-19

System software configuration

Before installing any of the Hospitality Integrated Voice Services hardware, the system software for Hospitality Integrated Voice Services can be configured through the system TTY terminal.

Note:

For Hospitality Integrated Voice Services, the system must have the software packages listed in Packaging requirements on page 26.

LD 17: Define the BGD terminal port

The Hospitality Integrated Voice Services card does not store AWU information. When a guest requests AWU service, the Hospitality Integrated Voice Services card forwards the request to the existing AWU software on the system. To enable the transfer of AWU requests from the Hospitality Integrated Voice Services card to the system, a BGD terminal must be configured and a BGD terminal port defined in the system software.

Note:

A serial port must be available on the system.

To define the BGD terminal port, access LD 17 from the system terminal and enter the appropriate responses to the prompts.

Table 8: LD 17: Define a BGD terminal port (Large Systems)

Prompt	Response	Description
REQ	CHG	Change
TYPE	CFN	Configuration data block
ADAN	NEW CHG TTY xx	Action Device And Number, where xx = 0–15
CTYP	aaaa	Card Type, where aaaa = DCHI, MSPS, SDI, SDI2, or XSDI
GRP	x	Network group number for Large Systems
DNUM	xx	Device number, where xx = 0–15 (same as ADAN device number)

Prompt	Response	Description
DES	a...x	Designator for AML port
USER	BGD	For background terminal
CUST	xx	Customer number as defined in LD 15

Table 9: LD 17: Define a BGD terminal port (CS 1000 systems)

Prompt	Response	Description
REQ	CHG	Change
TYPE	ADAN	Action Device And Number
ADAN	NEW CHG TTY xx	Action Device And Number, where xx = 0–15
TTY_TYPE	SDI	TTY Logical Type Standard TTY Type
CAB	x	SDI cabinet number
CDNO	xx	Serial Data Interface (SDI) Card number
PORT	0-15	Device number (same as ADAN device number)
DES	a...x	Designator for AML port
FLOW	NO	No flow control
BPS	9600	Rate of data transfer, in bits per second
BITL	8	Bit Length of 8
STOP	1	1 stop bit
PARY	NONE	No Parity
USER	BGD	Output Message Type Background Terminal
CUST	xx	Customer number as defined in LD 15

Note:
See Configuring the BGD terminal on page 57.

LD 15: Define DND call treatment for the system

A treatment must be defined for calls to a DN that has Do Not Disturb (DND) active. The system can return a busy tone (BST) to the caller, or the caller can be transferred to either an Attendant (ATT) or a designated Recorded Announcement (RAN) route. To define DND call treatment for the system, access LD 15 from the system terminal, and enter the appropriate responses to the prompts.

Table 10: LD 15: Define DND call treatment for the system

Prompt	Response	Description
REQ	CHG	Change
TYPE	FTR	Features and options
CUST	xx	Customer number as defined in LD 15
DNDL	(NO) YES	Definition of the DND lamp for analog sets, for DND indication
...		
TYPE	INT	Intercept treatment options
DNDT	(BST) ATT RAN	Treatment for calls to DNs with Do Not Disturb active Busy tone Attendant Recorded announcement
- RRT	xxx	RAN route for DND treatment, from 0–511

LD 23: Define the ACD data block

To configure the ACD data block, access LD 23 from the system terminal and enter the appropriate responses to the prompts shown below. This procedure defines the main ACD DN of the Hospitality Integrated Voice Services card.

Table 11: LD 23: Define the ACD data block

Prompt	Response	Description
REQ	NEW	New control data block
TYPE	ACD	ACD data block
CUST	xx	Customer number as defined in LD 15
ACDN	x...x	Main ACD DN of Hospitality Integrated Voice Services card
MAXP	8	Maximum number of ACD agent positions

Note:
Leave the NCFW prompt blank when defining the ACD DN assigned to the Hospitality Integrated Voice Services card.

Note:
Reserve a range of agent ID numbers for the Hospitality Integrated Voice Services ports. Refer to the information contained in Remote multi-terminal connection through the LAN on page 53.

LD 23: Define the access DNs

Define three ACD queues with no agents:

- AWU access DN
- DND access DN
- staff access DN

Each ACD queue (access DN) must have NCFW to the main ACD DN of the Hospitality Integrated Voice Services card configured.

To define the access DNs, access LD 23 from the system terminal, and enter the appropriate responses to the prompts.

Table 12: LD 23: Define the access DNs

Prompt	Response	Description
REQ	NEW	New control data block
TYPE	ACD	ACD data block
CUST	xx	Customer number as defined in LD 15
ACDN	x...x	The access DN (either for AWU, DND, or staff)
MAXP	1	Maximum number of ACD agent positions
NCFW	x...x	Night Call Forward DN Main ACD DN of Hospitality Integrated Voice Services card defined in Table 11: LD 23: Define the ACD data block on page 42
Note: Repeat commands in this table for each of the three access DNs.		

LD 11: Define Hospitality Integrated Voice Services ports as digital telephones

Each Hospitality Integrated Voice Services port represents an ACD agent with the digital telephone M2616. Configure these features using the Multi-line Telephone Administration program, LD 11, as follows.

Table 13: LD 11: Configure Hospitality Integrated Voice Services ports as digital telephones

Prompt	Response	Description
REQ	NEW	Add a new data port
TYPE	2616	Digital telephone M2616
TN		Terminal number of the Hospitality Integrated Voice Services port
	l s c u	Format for Large System, Call Server 1000E, and MG 1000E, where l = loop, s = shelf, c = card, u = unit
DES	a...x	ODAS telephone designator
CUST	xx	Customer number as defined in LD 15
KEY	0 ACD <ACD DN> <CLI> <pos ID>	ACD DN plus CLI plus position ID (CLI = 0, usually)[1]
KEY	1 SCN <any DN>	Line key
KEY	2 NRD	Not Ready key
KEY	3 MSB	Make Set Busy key
KEY	4 TRN	Call Transfer key
KEY	5 AO3	Three-party conference
KEY	10 DSP	Display

Note:

The number of virtual ACD agents of the ACD queue is equal to the number of Hospitality Integrated Voice Services ports. For example, if four ports are enabled, define four ACD agents. If the TN for the Hospitality Integrated Voice Services card is 28 0 6, for example, then the TNs for the four agents are 28 0 6 0 through 28 0 6 3. Port sequencing always begins at Port 0.

LD 23: Define the service DN (optional)

Define a service DN that transfers guests automatically to either Avaya CallPilot services or to an attendant, after they order AWU or DND service. To define this service DN, access LD 23 from the system terminal and enter the appropriate responses to the prompts.

Table 14: LD 23: Define the service DN

Prompt	Response	Description
REQ	NEW	New control data block
TYPE	ACD	ACD data block
CUST	xx	Customer number as defined in LD 15
ACDN	x...x	The service DN for the Hospitality Integrated Voice Services card
MAXP	1	Maximum number of ACD agent positions
NCFW	x...x	Night Call Forward DN The DN for Avaya CallPilot or an attendant. The Avaya CallPilot **Service** menu must be defined first.

Sample dial plan for Hospitality Integrated Voice Services

Table 15: Sample dial plan for a Hospitality Integrated Voice Services card on page 45 shows a sample dial plan for a Hospitality Integrated Voice Services card.

Table 15: Sample dial plan for a Hospitality Integrated Voice Services card

Description of DNs	Sample DNs	See Note
ACD DN	7000	Table 11: LD 23: Define the ACD data block on page 42
AWU access DN	7001 (NCFW = 7000 in LD 23)	Table 12: LD 23: Define the access DNs on page 43
DND access DN	7002 (NCFW = 7000)	Table 12: LD 23: Define the access DNs on page 43
Staff access DN	7003 (NCFW = 7000)	Table 12: LD 23: Define the access DNs on page 43
Special service DN	7004 (NCFW = MM or attendant DN)	Table 14: LD 23: Define the service DN on page 45

Note:
For the third-column references, see Sample dial plan for Hospitality Integrated Voice Services.

Installation preparation

The preparation consists of unpacking and inspecting the components, taking inventory, and locating the card slot where the Hospitality Integrated Voice Services card will be installed.

Unpack and inspect the equipment for damage. Follow the general precautions that computer and telephone equipment manufacturers recommend and the steps in Unpacking and inspecting components on page 46.

Unpacking and inspecting components

1. From the installation site, remove items that generate static charge.
2. Use antistatic spray if the site has carpet.
3. Ensure the RJ-45 and RS-232 customer-supplied cables are available. Refer to Table 5: Hospitality Integrated Voice Services hardware list on page 30 on Table 5: Hospitality Integrated Voice Services hardware list on page 30.
4. Wear an anti-static wrist strap before handling any equipment.
5. Remove equipment carefully from its packaging.
6. Visually inspect the equipment for obvious faults or damage. Report any damaged component to the sales representative and the carrier who delivered the equipment.

Follow the steps in Taking inventory on page 46 to take inventory.

Taking inventory

1. After unpacking and visually inspecting the equipment, verify that all the equipment is at the site before the installation begins.
2. Check the equipment received against the shipping documents.
3. Note any shortages and report them to the sales representative.

Note:

PMS requirements limit the number of Hospitality Integrated Voice Services cards to one card per system.

Identify the card slot

Refer to System compatibility on page 28 for information on identifying the card slot.

Equipment installation

Start the installation of the Hospitality Integrated Voice Services card and the external equipment connections associated with the Hospitality Integrated Voice Services card after the following has been done:

- verify that the pre-installation preparation has been completed (this includes verifying that all the equipment has been received undamaged)
- plan the Hospitality Integrated Voice Services equipment, port configuration, and external equipment connection configuration (see Engineering guidelines on page 25).

Install the Ethernet adapter

Follow the steps in Installing an Ethernet adapter onCabinet tip/ring connector on page 47 to install the Ethernet adapter on a CS 1000M Cabinet or Chassis. Follow the steps in Installing an Ethernet adapter on IPE module I/O panel on page 47 to install the Ethernet adapter on an IPE module.

Installing an Ethernet adapter onCabinet tip/ring connector

1. Identify the 50-pin tip/ring connector at the bottom of the cabinet or back of the chassis that corresponds to the card-slot position where the Hospitality Integrated Voice Services card will be installed.
2. Plug the 50-pin connector on the NT5D52BC Ethernet adapter into the 50-pin tip/ring connector on the CS 1000M Cabinet or Meridian 1 PBX 11C Cabinet.
3. Secure the Ethernet adapter to the cabinet.

Installing an Ethernet adapter on IPE module I/O panel

1. Remove the cover plate from the I/O panel at the rear of the IPE module.
2. Lift the I/O panel from the module by removing all of the retaining screws.
3. Disconnect the backplane cable 50-pin connector from the I/O panel filter connector.
4. Remove the existing filter connector from the I/O panel and save the retaining screws.

   This filter connector corresponds to the card slot selected for Hospitality Integrated Voice Services card installation.
5. Install the NT5D52AC Ethernet adapter into the selected I/O panel connector cut-out using the saved retaining screws.

See Figure 7: I/O connector bracket connection on page 51.

6. Fasten the I/O panel to the module using the retaining screws that was removed earlier. Replace the module's cover plate.

Install the Hospitality Integrated Voice Services card

Follow the steps in Installing a Hospitality Integrated Voice Services card on page 48 to install the Hospitality Integrated Voice Services card.

Installing a Hospitality Integrated Voice Services card

1. Identify the IPE card slot selected for the Hospitality Integrated Voice Services card.
2. Make sure that the hard drive PC Card is in the lower PC Card slot on the faceplate, and that it is firmly seated.
3. Pull the top and bottom extractors away from the Hospitality Integrated Voice Services card faceplate.
4. Insert the Hospitality Integrated Voice Services card into the card guides and gently push the card until the card makes contact with the backplane connector.
5. Push the top and the bottom extractors firmly towards the faceplate to insert the Hospitality Integrated Voice Services card into the faceplate connector and to lock the card firmly in place.
6. Observe the red LED at the top of the faceplate (the card LED).

   The LED blinks three times after the self-test successfully finishes. The LED then stays ON until the Hospitality Integrated Voice Services card is software-enabled.

Cabling

The Hospitality Integrated Voice Services card is connected to the following through the Ethernet adapter:

- LAN (refer to Connecting the Ethernet adapter to the LAN on page 49)
- maintenance terminal (refer to Connecting Ethernet adapter to customer PC when no LAN exists on page 50)
- BGD terminal (refer to Connecting the BGD terminal on page 55)

Before these connections are made, attach the NTBK48AA cable to the DB-9 connector of the Ethernet adapter. See Figure 6: The Ethernet adapter and the NTBK48AA cable on page 49.

Note:

The TTY port labeled P1 must be permanently connected to an SDI port programmed as a background terminal (BGD). The P2 port is unused in this Hospitality Integrated Voice Services card version.

Connect the Hospitality Integrated Voice Services card to the LAN

Connect the Hospitality Integrated Voice Services card to the LAN, through the Ethernet adapter, to have access to the BUI. With a connection to the LAN, a Telnet connection can be made to the CLI from a terminal on the intranet.

To connect the Hospitality Integrated Voice Services card to the LAN, follow the steps in Connecting the Ethernet adapter to the LAN on page 49. Follow the steps in Connecting Ethernet adapter to customer PC when no LAN exists on page 50 to connect the Hospitality Integrated Voice Services card to a customer PC when no LAN exists.

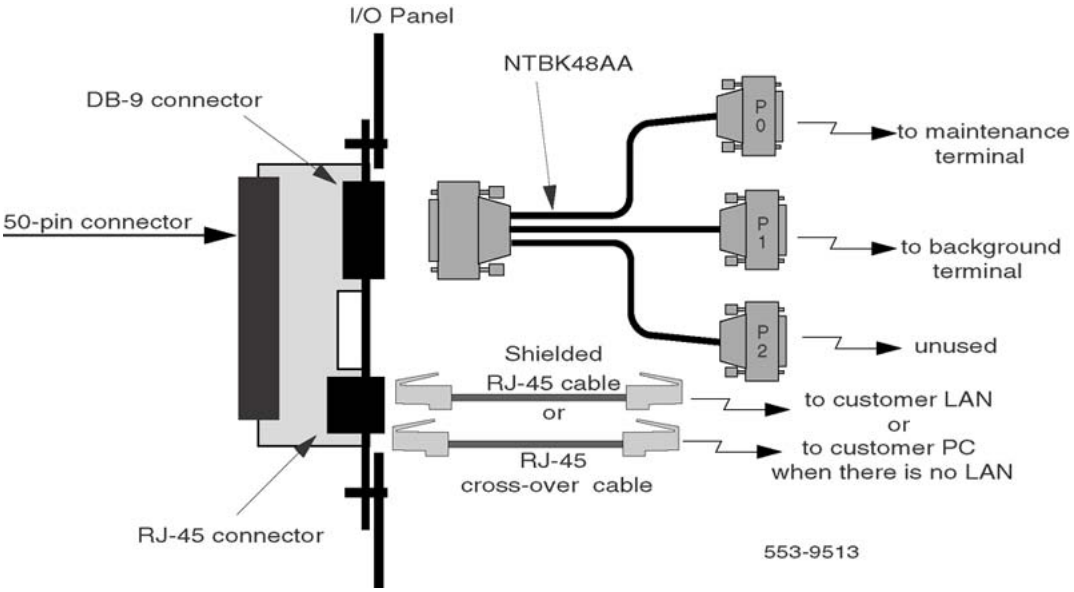

Figure 6: The Ethernet adapter and the NTBK48AA cable

Connecting the Ethernet adapter to the LAN

1. Check the installation of the Ethernet adapter on the I/O panel as described in Installing an Ethernet adapter onCabinet tip/ring connector on page 47.
2. Plug the modular cable RJ-45 plug into the RJ-45 jack on the Ethernet adapter.

   See Figure 7: I/O connector bracket connection on page 51.
3. Plug the RJ-45 plug at the other end of the modular cable into the LAN hub.
4. Make the other necessary Ethernet connections using standard Ethernet connection rules.

Connecting Ethernet adapter to customer PC when no LAN exists

1. Check the installation of the Ethernet adapter on the I/O panel as described in Installing an Ethernet adapter onCabinet tip/ring connector on page 47.
2. Plug the modular cross-connect cable RJ-45 plug into the RJ-45 jack on the Ethernet adapter.

   See Figure 7: I/O connector bracket connection on page 51.

   The LED on the Ethernet Adapter lights if a proper connection is made. If it the LED does not light, re-connect the cable.

   Refer to Table 16: RJ-45 cross-over (Ethernet) cable pinouts on page 50 for the RJ-45 cross-over cable pinouts.

   Table 16: RJ-45 cross-over (Ethernet) cable pinouts

Pin Number	Signal	Pin Number	Signal
1	TX+	3	RX+
2	TX -	6	RX -
3	RX+	1	TX+
4	---	4	---
5	---	5	---
6	RX -	2	TX+
7	---	7	---
8	---	8	---

3. Plug the RJ-45 plug at the other end of the modular cross-connect cable RJ-45 cable into the PC.

Figure 7: I/O connector bracket connection on page 51 illustrates the I/O connector bracket connection to the Hospitality Integrated Voice Services card, the maintenance terminal, the LAN, and PC connections

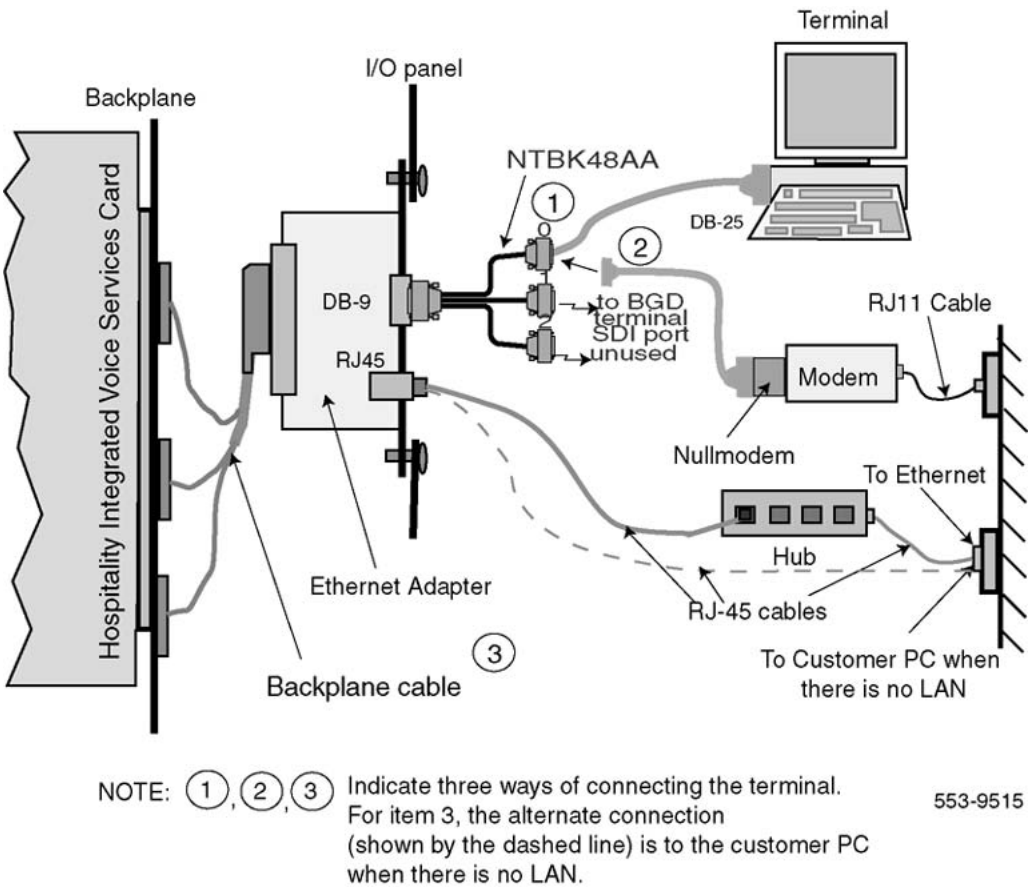

Figure 7: I/O connector bracket connection

Connect the Hospitality Integrated Voice Services card to the maintenance terminal

Connect the Hospitality Integrated Voice Services card maintenance terminal locally using a direct cable connection or remotely using a modem connection. The maintenance terminal provides access to the CLI on the Hospitality Integrated Voice Services card. Connect the terminal to the Hospitality Integrated Voice Services card by one of the following methods:

- A local connection through Port 0 of the NTBK48AA cable using a terminal cable (see Connecting the local terminal using a NTBK48AA cable on page 52)
- A remote connection through Port 0 of the NTBK48AA cable using a cable and a modem for remote access (see Setting up modem connection to Ethernet adapter on page 52 and Connecting the remote maintenance terminal using a modem on page 53)
- A remote, multi-terminal access through the Ethernet adapter's RJ-45 jack and a RJ-45 modular cable to a LAN hub (see Connecting the BGD terminal on page 55)

Local connection

To connect a local maintenance terminal through the NTBK48AA cable, connect Port 0 of the NTBK48AA cable to the terminal using a direct cable. See Figure 7: I/O connector bracket connection on page 51 for the connection illustration. Follow the steps in Connecting the local terminal using a NTBK48AA cable on page 52 to connect the local terminal through the NTBK48AA cable.

Connecting the local terminal using a NTBK48AA cable

1. Position the terminal on a desk near the system.
2. Check the installation of the Ethernet adapter on the I/O panel (see Installing an Ethernet adapter onCabinet tip/ring connector on page 47).
3. Check the installation of the NTBK48AA cable to the DB-9 male connector on the Ethernet adapter.
4. Plug the terminal cable 25-pin female connector into the 25-pin male connector (labeled Port 0) of the NTBK48AA cable.
5. Plug the DB-9 or DB-25 male connector at the other end of the terminal cable into the RS-232 connector on the terminal. (No null modem is necessary).

   If the connection requires a gender changer, obtain one at a local electronics store. See Configure the maintenance terminal on page 57 for further information.

Remote connection using cable and modem

To connect a modem (including a null modem) to the NT5D52AA Ethernet adapter, an RJ-11 cable and a 9-pin to DB25 cable are required. Refer to Figure 7: I/O connector bracket connection on page 51. Refer to Table 17: NT5D52AA Ethernet adapter pins on page 52 for a description of the NT5D52AA Ethernet adapter pins. Follow the steps in Setting up modem connection to Ethernet adapter on page 52 to connect the modem to the Ethernet adapter.

Setting up modem connection to Ethernet adapter

1. Connect the cable between Port 0 of the NTBK48AA cable from the Ethernet adapter, and the modem.

   Use a null modem if required.
2. Connect the modem to a phone plug.
3. Connect the RJ-11 cable from the modem to the Ethernet port.

Table 17: NT5D52AA Ethernet adapter pins

	Pin Number	Signal Description
9-pin serial connector	2	RS232 Tx (Transmit)
	3	RS232 Rx (Receive)

	Pin Number	Signal Description
	5	GND (Ground)
RJ45 Ethernet connector	1	LAN_Tx+
	2	LAN_Tx -
	3	LAN_Rx+
	6	LAN_Rx -

A remote maintenance terminal can be connected by connecting the NTBK48AA cable to a modem. See Figure 7: I/O connector bracket connection on page 51 for the connection illustration.

Follow the steps in Connecting the remote maintenance terminal using a modem on page 53 to connect a remote maintenance terminal using a modem.

Connecting the remote maintenance terminal using a modem

1. Check the installation of the Ethernet adapter on the I/O panel (see Installing an Ethernet adapter onCabinet tip/ring connector on page 47).
2. Check the installation of the NTBK48AA cable to the DB-9 male connector on the Ethernet adapter.
3. Plug the terminal cable 25-pin female connector into the 25-pin male connector (labeled Port 0) of the NTBK48AA cable.
4. Plug the DB-25 male connector at the other end of the terminal cable into the DB-25 female connector of the DB-25F/DB-25M null modem adapter.
5. Plug the DB-25 male connector of the null modem adapter into the DB-25 female connector on the modem.
6. Plug the modular modem cable RJ-11 plug into the RJ-11 jack on the modem.
7. Plug the other end of the modular modem cable RJ-11 plug into the RJ-11 jack on the wall, for PSTN access.

Remote multi-terminal connection through the LAN

The Hospitality Integrated Voice Services card can be accessed from multiple terminals through Telnet over the LAN. See Figure 7: I/O connector bracket connection on page 51 and refer to Connecting the Ethernet adapter to the LAN on page 49 for instructions.

Note:

The Hospitality Integrated Voice Services card cannot be accessed through Telnet over the LAN until the LAN parameters for the Hospitality Integrated Voice Services card are configured first. Configuring LAN parameters for a direct connection to a PC on page 59 Initial configuration of the Hospitality Integrated Voice Services card, including configuring the LAN parameters, requires a serial terminal connection to the card.

Figure 8: Hospitality Integrated Voice Services Telnet session login screen example on page 54 is an example of a Hospitality Integrated Voice Services card Telnet login screen session.

```
Dongle:

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

login: user

previous user login: June 12, 2000 16:44

SAdmin/, SMaint/, PAdmin/, PMaint/, AAdmin/, ADebug/, MIVS/, LOgout,?: MIVS

SAdmin/, SMaint/, PAdmin/, PMaint/, LOgout, ?: sa

SYstem, ?: sy

System Attributes:
card name: Alpha
agent id: not defined (see Note 1 below)
subnet mask: 255.255.240.0
gateway address: 47.82.32.1
I.P. address: 47.82.46.92
Modify, Save, Cancel:
```

Figure 8: Hospitality Integrated Voice Services Telnet session login screen example

Note:

The value "not defined" applies for the "agent id" field, if the "Agent ID Not Defined" prompt (AID) is set to NO (the default) in LD 23.

Note:

For the "agent id" field, an entry is required if the site has configured an ACD ID in LD 23. To get this value, print an ACD management report in LD 23.

Table 18: LD 23: Print ACD management report.

Prompt	Response	Description
REQ	PRT	Print ACD data.
TYPE	SCB	Schedule Control data block.
AID	YES	Agent ID mode.
- IDLB	(1)-9999	Agent ID Lower Boundary
- IDUB	IDLB-(9999)	Agent ID Upper Boundary

Note:

Ensure that the Agent IDs used for Hospitality Integrated Voice Services meet the following requirements:

- fall between the lower and upper boundaries, as printed in the IDLB and IDUB fields. See Table 18: LD 23: Print ACD management report. on page 54.
- are not used by other ACD agents
- are consecutive; for example, 0-7

Note:

The number entered for the Agent ID, if needed, must be the Agent ID assigned to port 0 of the Hospitality Integrated Voice Services card.

Connect the Hospitality Integrated Voice Services card to the BGD terminal

Hospitality Integrated Voice Services uses the BGD terminal to make requests to the system for AWU and DND services. To connect the BGD terminal to the Hospitality Integrated Voice Services card and the system, follow the steps in Connecting the BGD terminal on page 55:

Connecting the BGD terminal

1. Position the terminal on a desk near the system.
2. Check the installation of the Ethernet adapter on the I/O panel (see Installing an Ethernet adapter onCabinet tip/ring connector on page 47).
3. Check the installation of the NTBK48AA cable to the DB-9 male connector on the Ethernet adapter.
4. Plug the terminal cable 25-pin female connector into the 25-pin male connector (labeled Port 1) of the NTBK48AA cable (see Figure 6: The Ethernet adapter and the NTBK48AA cable on page 49 on Figure 6: The Ethernet adapter and the NTBK48AA cable on page 49). Port 1 connects to the SDI that is configured as the BGD terminal.

   Note:

   A null modem is needed to make the connection for a DTE connection (see Table 19: Connector pinout for the NT8K48AA on page 56 on Table 19: Connector pinout for the NT8K48AA on page 56 for the connector pinout).
5. Plug the DB-9 or DB-25 male connector at the other end of the terminal cable into the RS-232 connector on the terminal. (No null modem is necessary).

   If the connection requires a gender changer, obtain one at a local electronics store. (See Entering keycode information on page 58 for further information.)

Table 19: Connector pinout for the NT8K48AA

Adapter Pin No.	Pin Name	Pin Number	Port Number
3	RX RS-232 (CRT)	2	0
2	TX RS-232 (CRT)	3	0
5	GND RS-232 (CRT)	7	0
7	RX SCC3 (BGT)	2	1
6	TX SCC3 (BGT)	3	1
5	GND SCC3 (BGT)	7	1
9	RX SCC4 (optional)	2	2
8	TX SCC4 (optional	3	2
5	GND SCC4 (optional)		

Hospitality Integrated Voice Services configuration

Before beginning Hospitality Integrated Voice Services operation, perform the following configuration procedures:

- Configure the BGD terminal (see Configuring the BGD terminal on page 57)
- Configure the maintenance terminal for CLI access (see Configuring the maintenance terminal on page 58)
- Enter the keycode information (see Entering keycode information on page 58)
- Configure the LAN parameters in the CLI (see Entering LAN parameters for a Hospitality Integrated Voice Services card that connects to customer network on page 59)
- Configure the Hospitality Integrated Voice Services operating parameters in the BUI (see Configuring Hospitality Integrated Voice Services card administration parameters in the BUI on page 60)

Configure the BGD terminal

Follow the steps in Configuring the BGD terminal on page 57 to configure the BGD terminal.

Configuring the BGD terminal

1. Ensure that the BGD terminal was configured in the system software, as described in LD 17: Define the BGD terminal port on page 40.
2. Define the interface parameters of the BGD I/O card as follows:
   - Transmission speed: 9600 bps
   - Data bits:8
   - Stop bit:1
   - Parity:No
   - Flow control:No

   Note:
   The BDG terminal SDI port must be configured as DTE.
3. Configure the BGD terminal parameters. Refer to Table 20: BGD terminal parameters on page 57.

   Table 20: BGD terminal parameters

Parameter	Description
SET OPTION CONFIRM ON	The default is OFF. Change the setting to ON.
SET OPTION PORT xx SET ON	xx is the device number, from 0–15, defined at ADAN in LD 17.
SET OPTION PORT xx DISPLAY OFF	xx is the same device number as above, from 0–15.
SET OPTION LANGUAGE xx OFF	x is the language number, from 0–5. Do this for each language.

   Note:
   The SET OPTION CONFIRM is set to OFF by default. It is changed to ON because Hospitality Integrated Voice Services uses the information sent back from the BGD SDI port.
4. Put the terminal in LOGOUT mode.

Configure the maintenance terminal

Follow the steps in Configuring the maintenance terminal on page 58 to configure the maintenance terminal.

Configuring the maintenance terminal

1. To access the CLI, use a VT100-type terminal.

   Refer to Connect the Hospitality Integrated Voice Services card to the maintenance terminal on page 51 for instructions on connecting the VT100 terminal to the Hospitality Integrated Voice Services card.
2. Specify the VT100-type terminal interface characteristics to ensure compatibility with the Hospitality Integrated Voice Services card interface.
3. Configure the interface parameters as follows:
   - Transmission speed: 9600 bps
   - Data bits: 8
   - Stop bit: 1
   - Parity: No
   - Flow control: none

Note:
Do not use X-On/X-Off flow control.

Enter the keycode information

When first connecting a VT100 terminal to the Hospitality Integrated Voice Services card, the CLI appears and prompts to enter keycode information. To enter the keycode information, follow the steps in Entering keycode information on page 58:

Entering keycode information

1. At the **Modify, Save, Cancel**: prompt, enter **m** to **Modify**.
2. At the **max conf_ports (0)**: prompt, enter the number of ports that corresponds to the Hospitality Integrated Voice Services card keycode (for example., 8).
3. At the **Modify, Save, Cancel**: prompt, enter **s** to **Save** the modifications.
4. At the keycode prompts, enter **keycode1, keycode2**, and **keycode3** (eight characters each) for Hospitality Integrated Voice Services functionality.

   If the keycode entry is successful, a login prompt appears. The LAN parameters for the Hospitality Integrated Voice Services can now be configured.

Configure the LAN parameters in the CLI

If the Hospitality Integrated Voice Services card cannot be connected to the customer's LAN, a direct connection must be made between the PC and the Hospitality Integrated Voice Services card Ethernet adapter to load the Browser User Interface (BUI) screens. Use a

standard cross-over RJ-45 Ethernet cable and follow the steps in Configuring LAN parameters for a direct connection to a PC on page 59.

If the Hospitality Integrated Voice Services card will be connected to a customer's LAN, follow the steps in Entering LAN parameters for a Hospitality Integrated Voice Services card that connects to customer network on page 59.

Configuring LAN parameters for a direct connection to a PC

1. Obtain the PC's IP address. To find the PC Ethernet address:
    a. Go to the Control Panel.
    b. Double-click on the Network icon.
    c. Highlight the TCP/IP and Ethernet adapter and press `Enter`.
    d. Select Properties.

    The IP address tab displays the Ethernet address and submask.

    Note:
    Changing the PC Ethernet address requires a reboot.
2. Define the Hospitality Integrated Voice Services card IP address close (sequenced) to the PC's IP address.

    For example, if the PC IP address is 100.99.98.97, define the Hospitality Integrated Voice Services card IP address as 100.99.98.96, or 100.99.98.98.
3. Configure the Hospitality Integrated Voice Services card subnet mask to be the same as the PC subnet mask.
4. Do not define a gateway.

    Note:
    Check the connection using the PC/UNIX ping command (ping<IP-address>).

Entering LAN parameters for a Hospitality Integrated Voice Services card that connects to customer network

1. Once the system successfully registers the Hospitality Integrated Voice Services card keycode, log into the CLI as `root user` directory.
2. At the **root user directory** prompt, enter **`MIVS`** to access the Hospitality Integrated Voice Services directory.
3. At the **SAdmin, SMaint, PAdmin, PMaint, LOgout, ?**: prompt, enter **sa** to access **System Administration**.
4. At the **SYstem, REcorder, ?**: prompt, enter **sy** to access **System Attributes**.
5. Enter the system attributes of the Hospitality Integrated Voice Services card, including the IP address, gateway, and subnet mask.

    See CLI System Administration menu on page 76 for more information.

6. At the **Modify, Save, Cancel**: prompt, enter **s** to save the **system attributes**.
7. At the **Restart MIVS?** prompt, enter **Yes**.

Note:
This step may take a few minutes.

8. From a PC terminal, "ping" the Hospitality Integrated Voice Services card to ensure that it has a proper connection to the LAN. To ping a Hospitality Integrated Voice Services card, do the following:
    a. Click **Start** and select **Run**.
    b. In the **Open**: field, enter **ping <IP address>**, where <IP address> is the IP address of the Hospitality Integrated Voice Services card.
    c. Click **OK** and observe the DOS window that opens.

    If the **Reply from <IP address>**... message is displayed, the LAN connection has been configured properly. If the **Request timed out**. message is displayed, there is a problem with the LAN connection.
9. Define an agent ID here if agent IDs are used.

Note:
For the "agent id" field, an entry is required if the site has configured an ACD ID in LD 23. To get this value, print an ACD management report in LD 23.

Configure Hospitality Integrated Voice Services card parameters in the BUI

The final procedure that must be performed to enable Hospitality Integrated Voice Services operation is the configuration of the administration parameters in the BUI. To configure the Hospitality Integrated Voice Services card administration parameters, follow the steps in Configuring Hospitality Integrated Voice Services card administration parameters in the BUI on page 60.

Note:
Hospitality Integrated Voice Services permits only one person at a time to log into the BUI.

Configuring Hospitality Integrated Voice Services card administration parameters in the BUI

1. Open the web browser on the PC.

   For minimum browser versions, refer toWeb browser characteristics on page 32.
2. In the URL field of the web browser, enter **http://<Hospitality Integrated Voice Services card IP address>/MIVS_bui.htm**

3. Press `Enter`.

   The MIVS BUI login window opens..

4. In the MIVS BUI login window, enter the User Name (default = **`admin`**) and the Password (default = **`000000`** [six zeros]), and press `Enter`.

   The MIVS BUI Administration Parameters window opens. See Figure 9: MIVS BUI Administration Parameters window on page 61.

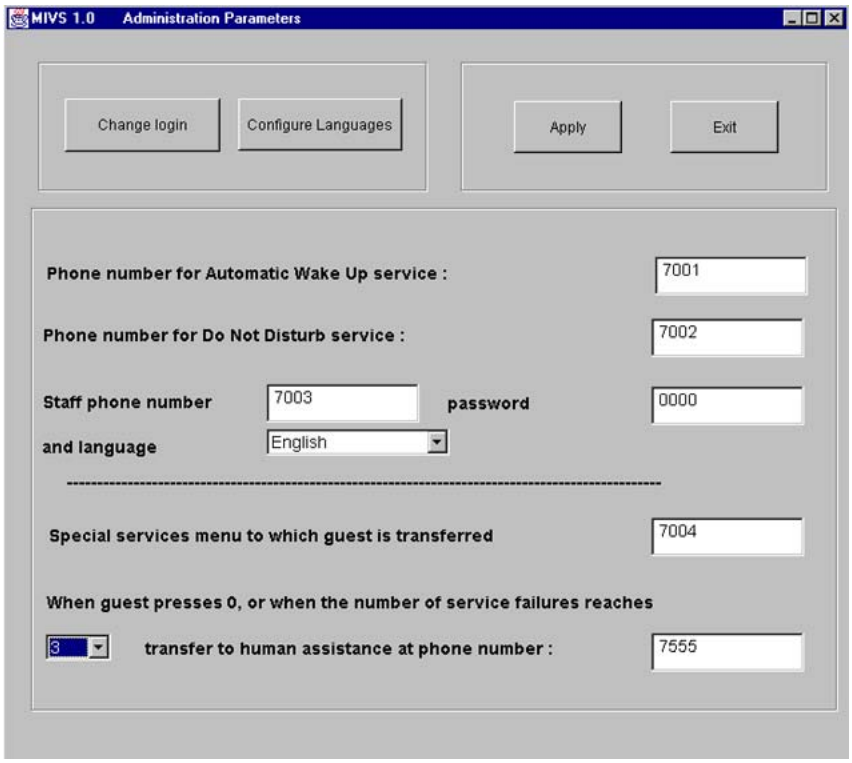

Figure 9: MIVS BUI Administration Parameters window

5. Enter the phone number for Automatic Wake Up service in the appropriate field (this is 7001 from Table 15: Sample dial plan for a Hospitality Integrated Voice Services card on page 45 on Table 15: Sample dial plan for a Hospitality Integrated Voice Services card on page 45).

6. Enter the phone number for Do Not Disturb service (this is 7002 from Table 15: Sample dial plan for a Hospitality Integrated Voice Services card on page 45 on Table 15: Sample dial plan for a Hospitality Integrated Voice Services card on page 45).

7. Enter the staff phone number (this is 7003 from Table 15: Sample dial plan for a Hospitality Integrated Voice Services card on page 45 on Table 15: Sample dial plan for a Hospitality Integrated Voice Services card on page 45).

8. Define the TUI password for staff access to Hospitality Integrated Voice Services (enter from one to nine digits).

9. Select the language for staff access (English is the default).

10. Optional: Enter the phone number for guest access to a special menu. (This is the phone number that Hospitality Integrated Voice Services transfers a guest to automatically after the guest orders AWU or DND service.) The default setting is NONE and should appear when no other DN has been defined.
11. From the drop-down list, select the number of service failures that can occur before Hospitality Integrated Voice Services transfers the guest to an attendant.
12. Enter the attendant phone number to which Hospitality Integrated Voice Services must transfer a guest when a guest presses `0` or experiences the predetermined number of service failures. Enter LDN if ICI keys are defined or direct access to attendant.
13. Click **Apply** to save the administration parameters.
14. Click **Exit** to exit the BUI.

Change user name and password to control access

The default user name (login) is **`admin`** and the default password is **`000000`** (six zeros). To control access to the Hospitality Integrated Voice Services card, change these parameters after entering the BUI. To change the user name and password for BUI access, follow the steps in Changing the user name (login) and password on page 62:

Changing the user name (login) and password

1. Click **Change name and password** at the top of the MIVS BUI Administration Parameters window.

   The MIVS BUI Change password window opens. See Figure 10: MIVS BUI change password window on page 63.

Figure 10: MIVS BUI change password window

2. Enter the **old user name (login)** and **old password** in the appropriate fields.
3. Enter the **new user name (login)** and **new password** in the appropriate fields.

   The user name (login) can be up to six alphanumeric characters in length. The password can be from one to seven alphanumeric characters in length.
4. Enter the **new password (login)** again to confirm it.
5. Click **OK** to close the MIVS BUI Change password window and save the new user name and password. Click **Cancel** to close the Hospitality Integrated Voice Services BUI Change password window without changing the user name [login] and password.

Note:
There is no limit to how often the user name (login) and password can be changed.

Configure the language

Follow the steps in Configuring a Hospitality Integrated Voice Services card language on page 63 to configure the Hospitality Integrated Voice Services language settings.

Configuring a Hospitality Integrated Voice Services card language

1. Click **Configure Languages** in the MIVS BUI Administration Parameters window.

   The MIVS BUI Language Configuration window opens.See Figure 11: MIVS BUI language configuration window on page 64.

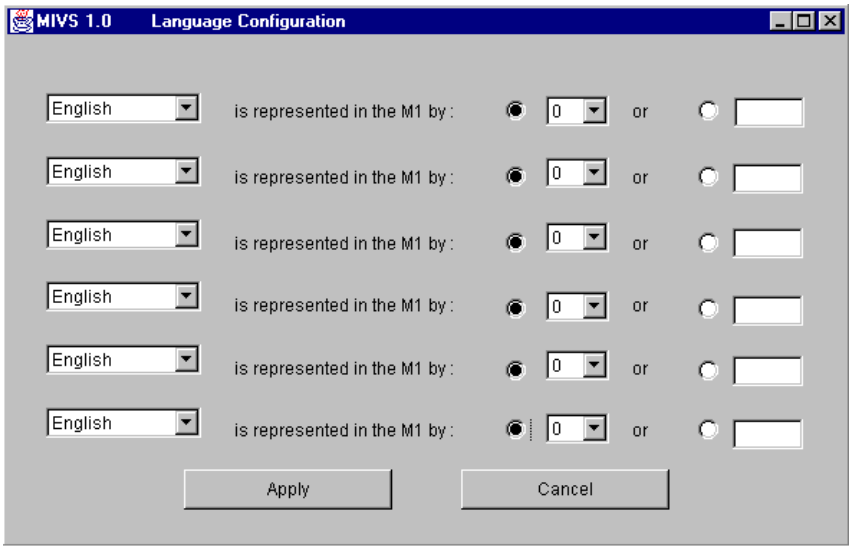

Figure 11: MIVS BUI language configuration window

2. Choose a language from the drop-down list.

   The menu lists six languages. **English** is the default.

3. Click the radio button next to the number or character field in the same row as the language to indicate which method the system uses to designate the language.
4. If using a number to indicate language designation (default), choose a number from 0–5 from the drop-down list.
5. If the administrator selects the character field, assign a character string for the system to designate a language.

Chapter 6: Operation

Contents

This section contains information on the following topics:

Introduction

This chapter describes the operation of Hospitality Integrated Voice Services. Hospitality Integrated Voice Services enables a guest to perform the following functions:

- Order, modify, or cancel AWU service
- Order or cancel DND service

Hospitality Integrated Voice Services enables the staff to perform the following functions:

- Order, modify, or cancel AWU service for a guest
- Order or cancel DND service for a guest
- Customize the greetings that guests hear when they dial into Hospitality Integrated Voice Services

The guests and staff perform each of these functions through a TUI. They access the TUI by dialing the appropriate DN that was defined in [System software configuration](#) on page 40 and [Hospitality Integrated Voice Services configuration](#) on page 56. Ensure the guests and staff are aware of the appropriate DNs to dial. The staff must also know the password for staff access.

The following sections describe the high-level procedures for performing each of these functions. The TUI menus are easy to follow and do not require special training. The procedures are provided here for reference. In the following sections, the TUI audio response appears in italics after each guest or staff action.

Note:
Guests can press 0 at any time to transfer to an operator/attendant.

Automatic Wake Up (AWU)

To order, modify, or cancel AWU service, a guest must dial the AWU service DN from his room.

Ordering AWU service

1. The guest dials the AWU access DN from his room.

   Hello, you have reached the Automatic Wake Up service. (The staff can modify this greeting. Customizing greetings on page 69)

   Please enter your wake up time. When done, press the number sign.
2. The guest enters the time on the telephone keypad. The time entry can be three or four digits. Hospitality Integrated Voice Services requests whether the time is a.m. or p.m., if necessary. Hospitality Integrated Voice Services recognizes time requests according to both 12-hour clocks and 24-hour clocks.

   For a.m., press 1. For p.m., press 2.

   This prompt is heard only if necessary.
3. The guest presses 1 for a.m. or 2 for p.m., if necessary.

   Your requested wake up time is today (tomorrow) at 'HH:MM'.

   To approve, press 1. To change the time, press 2. To hear the time again, press 3.
4. The guest presses 1 to approve the request.

   Your wake up request has been accepted.

   Hospitality Integrated Voice Services then disconnects the call or transfers the guest to the special services DN.

To modify AWU service, the guest follows the steps in Changing AWU service on page 66:

Changing AWU service

1. The guest dials the AWU access DN from his room.

   Hello, you have reached the Automatic Wake Up service.

   Your wake up request is for today (tomorrow) at 'HH:MM'.

To cancel your wake up request, press 1. To change the time, press 2. To exit, press 3.

2. The guest presses 2 to modify the wake up time.

   Please enter your wake up time. When done, press the number sign.

3. The guest enters the time on the telephone keypad.

   For a.m., press 1. For p.m., press 2.

   This prompt occurs only if necessary.

4. The guest presses 1 for a.m. or 2 for p.m., if necessary.

   Your requested wake up time is today (tomorrow) at 'HH:MM'.

   To approve, press 1. To change the time, press 2. To hear the time again, press 3.

5. The guest presses 1 to approve the request.

   Your wake up request has been accepted.

   Hospitality Integrated Voice Services then disconnects the call or transfers the guest to the special services DN.

To cancel AWU service, the guest follows the steps in Cancelling AWU service on page 67.

Cancelling AWU service

1. The guest dials the AWU access DN from his room.

   Hello, you have reached the Automatic Wake Up service.

   Your wake up request is for today (tomorrow) at 'HH:MM'.

   To cancel your wake up request, press 1. To change the time, press 2. To exit, press 3.

2. The guest presses 1 to cancel the wake up time.

   Your wake up request has been canceled. Thank you for using this service.

Do Not Disturb (DND)

To order or cancel DND service, a guest must dial the DND service DN from his room.

To order DND service, the guest follows the steps in Ordering DND service on page 67.

Ordering DND service

1. The guest dials the DND access DN from his room.

Hello, you have reached the Do Not Disturb service. (The staff can modify this greeting. Customizing greetings on page 69)

To activate Do Not Disturb now, press 1.

2. The guest presses 1 on the telephone keypad.

   Do Not Disturb has been activated.

   Thank you for using this service.

   Hospitality Integrated Voice Services then disconnects the call.

To cancel DND service, the guest follows the steps in Cancelling DND service on page 68.

Cancelling DND service

1. The guest dials the DND access DN from his room.

   Hello, you have reached the Do Not Disturb service. (The staff can modify this greeting. Customizing greetings on page 69

   Do Not Disturb is active for this room. To cancel now, press 1. To leave active, please hang up.

2. The guest presses 1 on the telephone keypad.

   Do Not Disturb has been cancelled.

   Thank you for using this service.

   Hospitality Integrated Voice Services then disconnects the call.

Staff operation

To customize the Hospitality Integrated Voice Services greetings or request AWU and DND services for a guest, the staff must dial the staff access DN from any Dual-Tone Multi-Frequency (DTMF) telephone within the system.

Warning:

When a greeting is customized, Hospitality Integrated Voice Services writes over the original default greeting. If the default greeting must be saved for possible future use, back up the Hospitality Integrated Voice Services software to a spare PC Card. Back up the Hospitality Integrated Voice Services software before recording the new greeting. Use the Archive Database command in the CLI (see Archive Database on page 78) to back up the Hospitality Integrated Voice Services software.

To customize either of the greetings that guests hear when they dial into Hospitality Integrated Voice Services, follow the steps in Customizing greetings on page 69. The audio prompts are in italics.

Customizing greetings

1. Dial the staff access DN.

   Please enter the password, followed by the number sign.

   There is a single customized greeting for all languages.

2. Enter the password on the telephone keypad.

   To order Do Not Disturb, press 1. To order Automatic Wake Up, press 2. To customize your greeting, press 3. To exit, press 4.

3. Press 3.

   To customize a Do Not Disturb greeting, press 1. To customize an Automatic Wake Up greeting, press 2. To exit without changing, press 3.

4. Press 1 to customize the DND greeting or 2 to customize the AWU greeting.

   The current customized greeting is...

   Hospitality Integrated Voice Services then plays either the DND or the AWU greeting, whichever is appropriate.

   After the tone, please record your customized greeting up to a maximum of 15 seconds, followed by the number sign.

   A tone beeps.

5. Speak the new greeting into the telephone handset and then press # to finish the recording.

   The recorded greeting is...

   MVVS plays the new greeting.

   To accept, press 1. To listen again, press 2. To re-record, press 3. To exit without changing the greeting, press 4.

6. Press 1 to approve the new greeting.

   To order Do Not Disturb, press 1. To order Automatic Wake Up, press 2. To customize your greeting, press 3. To exit, press 4.

7. Press 4 to exit.

   Hospitality Integrated Voice Services disconnects the call.

To handle AWU service for a guest, follow the steps in Handling AWU service for a guest on page 69:

Handling AWU service for a guest

1. The staff dials the staff access DN.

   Please enter the password, followed by the number sign.

2. Enter the password on the telephone keypad.

To order Do Not Disturb, press 1. To order Wake Up, press 2. To customize your greeting, press 3. To exit, press 4.

3. Press 2.

   Please enter the room's phone number, followed by the number sign.

4. Enter the guest's room phone number, followed by the number sign.

   Hospitality Integrated Voice Services checks the room's status for AWU.

5. Order, modify, or cancel AWU for the guest the same way a guest does. See Automatic Wake Up (AWU) on page 66.

To handle DND service for a guest, follow the steps in Handling DND service for a guest on page 70.:

Handling DND service for a guest

1. Dial the staff access DN.

   Please enter the password, followed by the number sign.

2. Enter the password on the telephone keypad.

   To order Do Not Disturb, press 1. To order Automatic Wake Up, press 2. To customize your greeting, press 3. To exit, press 4.

3. Press 1.

   Please enter the room's phone number, followed by the number sign.

4. Enter the guest's room phone number, followed by the number sign.

   Hospitality Integrated Voice Services checks the room's status for DND.

5. Order or cancel DND for the guest the same way a guest does. See Do Not Disturb (DND) on page 67.

Chapter 7: Administration using the CLI

Contents

This section contains information on the following topics:

Introduction

Use the Command Line Interface (CLI) and Browser User Interface (BUI) to perform administration tasks. This chapter describes the CLI. The section called Configuring Hospitality Integrated Voice Services card administration parameters in the BUI on page 60 describes administration using the BUI.

The Hospitality Integrated Voice Services CLI enables an administrator to perform various system administrative functions, including upgrades. Access the CLI through a VT100-type terminal or a PC running a terminal emulation program. The terminal can connect directly to the RS-232 port on the Hospitality Integrated Voice Services card. Alternatively, access the CLI over the Ethernet through a hub that connects to the RJ-45 port on the card. The following system administration functions are accessible through the CLI:

- Keycode entry
- LAN parameter definition for the Hospitality Integrated Voice Services card
- Hospitality Integrated Voice Services card restarts
- CLI password control
- BUI password reset and screen lock
- Hospitality Integrated Voice Services functional and software upgrades

Before accessing the CLI, configure the terminal interface parameters, as described in Configure the maintenance terminal on page 57.

Log into the CLI

To log into the CLI, enter the password at the Login: prompt. The default password is **user**, which can be changed after logging in. Use the CLI to perform the following functions:

- System administration, which includes defining the card name, setting the LAN parameters, and defining agent IDs
- System maintenance, which includes archiving and restoring the database, and restarting the card
- Protected administration, which includes editing and resetting passwords, upgrading and modifying software functionality, and locking the BUI screens
- Port maintenance, which displays the status of the ports

The default password can be changed. If the password is forgotten, reset the password as shown in the following example:

```
Login: rst
```

```
Enter keycode1 (8 characters):12345678
Enter keycode2 (8 characters): 81234567
Enter keycode3 (8 characters): 78123456
Passwords have been reset.
Login: user
```

A new password can then be assigned by accessing the **CLI Protected Administration** menu.

General administration procedures

General administration procedures are that must be followed when modifying default or existing parameters. General administration procedures apply in the following situations:

- General administration commands
- Object modify procedure
- Collection modify procedure

General administration commands

When modifying system administration parameters, use one or more of the following commands:

- Modify – Enter **M** to modify one or more parameters.
- Save – Enter **S** to save modified parameters.
- Cancel – Enter **C** to cancel the modification and allow the parameter to retain its previous value.

After the session is complete, the screen re-displays the Modify, Save, or Cancel: command line for additional modification of parameters, if desired.

To navigate between menus or to display Help, use the following terminal keys:

- The asterisk (*) key to return to the previous menu.
- The backslash (/) key to return to the top-level menu.
- The question mark (?) key to assist with commands in the current menu.

Object modify procedure

To modify a value or attribute of an object, the program responds with a sequence of prompts, one prompt for each attribute of the object. The prompt specifies the name and the current value of the attribute as follows:

```
attribute_a (current_value_a): new_value_a
attribute_b (current_value_b): .
```

For each prompt, there are to three ways to respond:

- Enter **<cr>** to accept the current value.
- Enter **value** to change the attribute.
- Enter a dot (.) to terminate the session.

In some cases, the system displays the current value and a list of available values to select (where the value of attribute_c has been changed to bbbb); for example:

```
attribute_c (current_c, (1-aaaa, 2-bbbb, 3-cccc)): 2
```

After the session is complete, the system lists the new set of values and prompts to Modify, Save, or Cancel the modification(s).

Collection modify procedure

This procedure modifies, deletes, or adds an entry to a collection of items of the same type, such as for example, port capacity.

Move through the list of items by entering **<cr>** to skip the item, enter a command to modify the item, or enter . (dot) to exit the list. The command can be:

- **m** – Used to modify the item in the list using object modify procedure
- **d** – Used to delete a selected item in the list
- **i** – Used to insert a list of items above the currently selected item
- **a** – Used to append a list of items below the currently selected item

For **insert** and **append** commands, the system prompts to add a new item. Terminate this sequence by entering . (dot). When the system executes the command(s), the program gives the option to Modify, Save, or Cancel the changes. Enter Save to keep the new changes.

At the end of the list, the system displays or prints the new list and prompts again to Modify or Exit the list.

CLI Main Menu

The CLI Main Menu is the first menu to appear after logging in. The CLI Main Menu lists administration and maintenance menus and appears in the CLI as follows:

SAdmin, SMaint, PAdmin, PMaint, AAdmin, ADebug, MIVS, LOgout, ?:

To access one of the menus, enter the first two letters of the menu, and press Enter. For example, to access the **System Administration** menu, enter **sa, SA**, or the long form of the command **SAdmin**. Enter **lo** or **LO** to log out.

Figure 12: CLI MIVS submenus on page 75 illustrates the submenus for the CLI Main Menu. After logging in, the various submenus can be accessed; however, the general administration procedures must be followed.

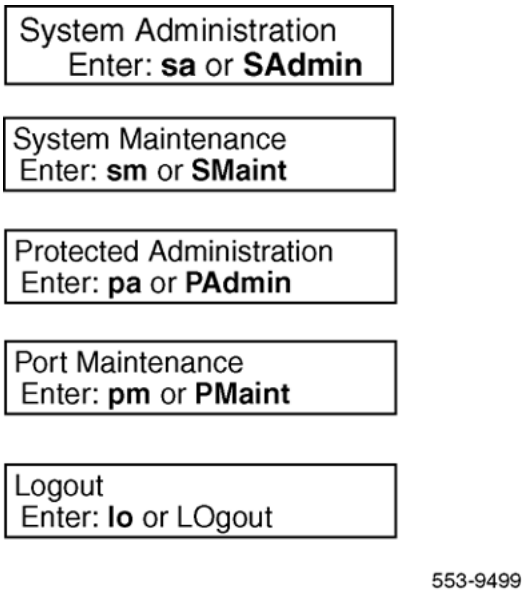

Figure 12: CLI MIVS submenus

Help display

When **?** is selected, the system lists the commands that relate to the **CLI Main Menu**. See Table 21: Help display - system commands on page 75

Table 21: Help display - system commands

Short Command	Full Command	Description
sa or SA	SAdmin	System Administration directory
sm or SM	SMaint	System Maintenance directory
pa or PA	PAdmin	Protected Administration directory
pm or PM	PMaint	Port Maintenance directory
lo or LO	LOgout	Log out

CLI System Administration menu

To access the **CLI System Administration** menu from the **CLI Main Menu**, enter **sa, SA**, or the full command **SAdmin**. Figure 13: CLI System Administration menu on page 76 illustrates the CLI System Administration menu and all the accessible submenus.

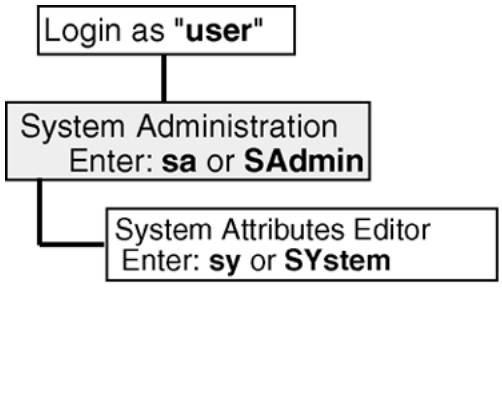

Figure 13: CLI System Administration menu

System Attributes Editor

Use this menu to modify system attributes as follows:

- Card name – a character string with maximum length of 10 characters. The name appears at the top of the MIVS BUI Login window, if a name is specified.
- Agent ID – default is not defined. If necessary, enter the same information defined in the system software.
- Subnet mask – has XXX.XXX.XXX.XXX format, where every XXX is in the range 0–255. The subnet mask in binary presentation of 32 bits has at least the first eight digits as 1 and the last digit as 0.
- Gateway address – has XXX.XXX.XXX.XXX format, where every token is in the range 0–255.
- IP address – the Ethernet IP address; has the same format as the gateway address.

Example:

```
login: user
Previous user login: Feb 11, 1997 10:00
SAdmin, SMaint, PAdmin, PMaint, LOgout, ?: sa
SYstem, ?: sy
```

```
System Attributes:
card name:
agent id: not defined
subnet mask: 255.255.248.0
gateway address: 141.226.199.254
IP address: 141.226.199.50
Modify, Save, Cancel: m
card name (): first_card
agent id: not defined
subnet mask (255.255.248.0):
gateway address (141.226.199.254):
IP address (141.226.199.50):
New System Attributes:
card name (): first_card
agent id: not defined
subnet mask: 255.255.248.0
gateway address: 141.226.199.254
IP address:141.226.199.50
Modify, Save, Cancel: s
System Attributes have been updated.
SYstem, ?: /   SAdmin, SMaint, PAdmin, PMaint, LOgout, ?: lo
```

By entering **lo, LO**, or **LOgout**, this concludes the **System Attributes Editor** session, returns to the **CLI Main Menu**, and logs out.

Help display

When the **Help (?)** command is selected, the system displays the **System Attributes Editor** command. See Table 22: Help display - System Attributes Editor command on page 77.

Table 22: Help display - System Attributes Editor command

Short Command	Full Command	Description
sy or **SY**	SYstem	System Attributes Editor. Edit: card name, subnet mask, gateway address, and IP address.

CLI System Maintenance menu

To access the **CLI System Maintenance** menu from the **CLI Main Menu**, enter **sm, SM**, or the full command **SMaint**. Figure 14: CLI System Maintenance menu on page 78 shows the CLI System Maintenance menu structure.

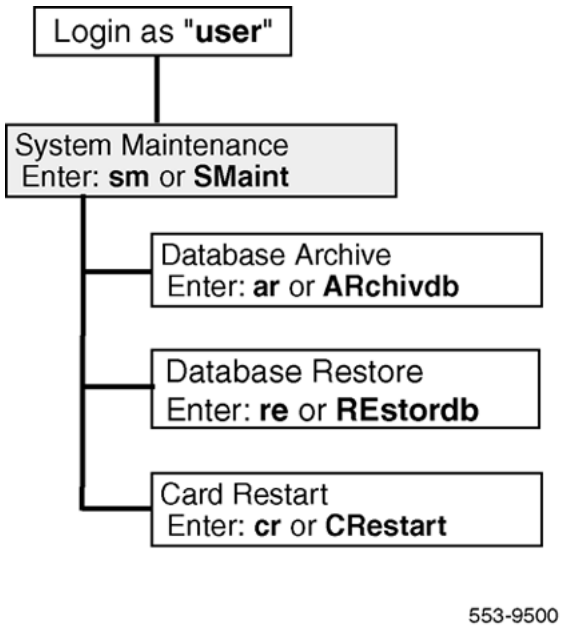

Figure 14: CLI System Maintenance menu

Archive Database

Disable Hospitality Integrated Voice Services in LD 32 before archiving the database. The **`Archive Database (ARchivdb)`** command enables a backup of the Hospitality Integrated Voice Services voice and data files, not firmware, BUI, or screens. The Archive process overwrites files on disk. The system copies a set of database files from the active PC Card in the lower slot (drive A:) to the backup Pc Card in the upper slot (drive B:). The DB Description file specifies the names of the files that Archive Database backs up. These files include configuration databases, as well as voice files.

Note:

Avaya recommends archiving the database to a backup disk, particularly if the AWU and DND service greetings will be customized. Customization of the greetings removes the original default greetings from the database.

For backup, use the same type of PC Card that sits in the lower slot (drive A:). If the PC Card memory is too small to accept all the database information, an error message appears.

Example:

```
ARchivdb, REstordb, CRestart, ?: ar
Backup Database? (Yes, (No)) y
Please wait, performing backup... completed.
ARchivdb, REstordb, CRestart, ?:
```

Restore Database

Disable the Hospitality Integrated Voice Services card using LD 32 before restoring the database. The **Restore Database (REstordb)** command enables the customer database to be restored to the system PC Card in the lower slot (drive A:). The system copies a set of files from the backup PC Card in the upper slot (drive B:) to the active PC Card in the lower slot (drive A:). The DB Description file lists the names of the files that Restore Database restores.

Example:

```
ARchivdb, REstordb, CRestart, ?: re
Restore Database? (Yes, (No)) y
Please wait, performing restore... completed.
ARchivdb, REstordb, CRestart, ?:
```

Card Restart

The **Card Restart (CRestart)** command restarts the Hospitality Integrated Voice Services card, which initiates a software reload.

Example:

```
ARchivdb, REstordb, CRestart, ?: cr
Restart MIVS card? (Yes, (No)) yes
```

This action returns the Hospitality Integrated Voice Services card to the initial screen where it is necessary to log in again.

Help display

When the **Help (?)** command is selected, the system displays the System Maintenance commands. See Table 23: Help display - System Maintenance commands on page 79.

Table 23: Help display - System Maintenance commands

Short Command	Full Command	Description
ar or AR	ARchivdb	Backs up customer database
re or RE	REstordb	Restores customer database

Short Command	Full Command	Description
cr or CR	CRestart	Resets Hospitality Integrated Voice Services card

CLI Protected Administration menu

To access the **CLI Protected Administration** menu from the **CLI Main Menu**, enter **pa, PA**, or the full command **PAdmin**. Figure 15: CLI Protected Administration menu on page 80 shows the **CLI Protected Administration** menu, which provides password administration, and port and software upgrade administration.

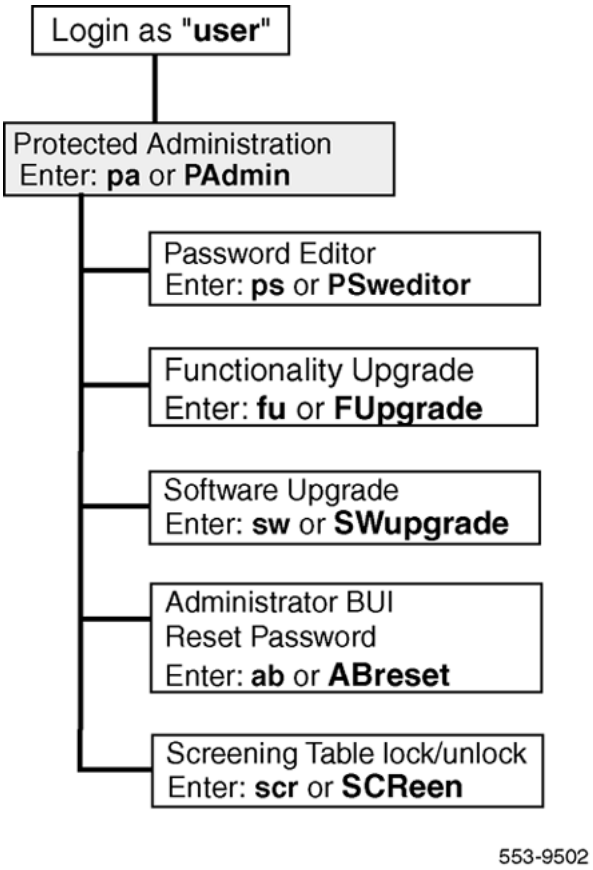

Figure 15: CLI Protected Administration menu

Password Editor

To change the CLI password, log into the CLI and access the **Password Editor** menu from the **CLI Protected Administration** menu. The default or any other password can be changed to a new password. The maximum password length is 10 characters.

Example:

This example shows how to modify the administrator password:

```
PSweditor, FUpgrade, SWupgrade, ABreset, ?: ps
Current Passwords:
admin: user
Modify,Save, Cancel: m
admin (user): administrator
New passwords:
admin: administrator
Modify,Save, Cancel: Save
Passwords have been updated.
Sweditor, FUpgrade, SWupgrade, ABreset, ?:
```

Functionality Upgrade

The **`Functionality Upgrade (FUpgrade)`** command is used to change the number of available ports/channels on the Hospitality Integrated Voice Services card. To activate a change to the number of ports/channels, a new keycode must be entered. The system compares the new keycode to the keycode in the Hospitality Integrated Voice Services memory. After keycode authentication, the CLI displays the current number of Hospitality Integrated Voice Services ports/channels.

The CLI allows three attempts to enter the correct keycode. If the correct keycode is not entered after three attempts, the changes made do not take effect. If Hospitality Integrated Voice Services authenticates the keycode, Hospitality Integrated Voice Services stores the changes in the memory. The changes take effect, activating the new number of Hospitality Integrated Voice Services ports.

Enter the keycode using three prompts: keycode1, keycode2, and keycode3. Each prompt requires the entry of eight digits.

Example:

This example expands the number of available Hospitality Integrated Voice Services ports from 4 to 8:

```
PSweditor, FUpgrade, SWupgrade, ABreset, ?: fu
max conf_ports: 4
```

```
Modify, Save, Cancel: m
max conf_ports (4): 8
Modify, Save, Cancel: Save
Enter keycode1: 12121234
Enter keycode2: 23232345
Enter keycode3: 32222385
Incorrect key-code
Modify, Save, Cancel: Save
Enter keycode1: 12112234
Enter keycode2: 12128934
Enter keycode3: 32222385
weditor, FUpgrade, SWupgrade, ABreset, ?:
```

Software upgrade

Disable the Hospitality Integrated Voice Services card using LD 32 before restoring the database. The **Software Upgrade (SWupgrade)** command enables an upgrade of the Main Processor Unit (MPU) and the Digital Signal Processor (DSP) software on an active Hospitality Integrated Voice Services card. The new software resides on a PC Card flash card, which must be installed in drive B: on the Hospitality Integrated Voice Services card before the **Software Upgrade** command is executed. If the PC Card is not in place when trying to save the upgrade, the system issues an error message as follows:

```
There is no PCMCIA in Socket 1
MPU upgrade failed.
There is no PCMCIA in Socket 1
DSP upgrade failed.
```

To upgrade the software, follow the steps in Upgrading the MPU and DSP software on page 82.

Upgrading the MPU and DSP software

1. Place the PC Card flash card into the top PC Card slot (drive B:) on the Hospitality Integrated Voice Services card. Ensure that the hard drive card PC Card is still in the lower PC Card slot (drive A:).
2. Log into the CLI and proceed shown in the following example.

   Example:

   ```
   PSweditor, FUpgrade, SWupgrade, ABreset, ?: sw
   software release: 03, issue: 07
   Modify, Save, Cancel: m
   Modify software? (Yes, (No)) yes
   Modify, Save, Cancel: Save
   Installation of MIVS s/w in progress...
   New s/w will be used following MIVS restart.
   Restart MIVS? (Yes, (No)) Yes
   ```

3. After the upgrade is complete, it is safe to remove the PC Card flash card from the upper PC Card slot (drive B:).

Administrator BUI Reset Password command

The **Administrator BUI Reset Password (ABreset)** command enables the password for access to the BUI to be reset. The default password for the BUI is **000000** (six zeros).

To reset the BUI password to the default value, follow this example:

```
PSweditor, FUpgrade, SWupgrade, ABReset, ?: abr
Reset BUI Administrator Password? (Yes, (No)): Yes
Password has been reset.
PSweditor, FUpgrade, SWupgrade, ABreset, ?:
```

Help display

When the **Help (?)** command is selected, the system displays the **Protected Administration commands**. See Table 24: Help display - Protected Administration commands on page 83.

Table 24: Help display - Protected Administration commands

Short Command	Full Command	Description
ps or PS	PSweditor	Password Editor
fu or FU	FUpgrade	Functionality Upgrade; allows or restricts capabilities secured by the keycode
sw or SW	SWupgrade	Software Upgrade; upgrades MPU and/or DSP software
abr or ABR	ABreset	Administrator BUI Reset Password

CLI Port Maintenance Menu

To access the **CLI Port Maintenance** menu from the **CLI Main Menu**, enter **pm, PM**, or the full command **PMaint**. Figure 16: CLI Port Maintenance menu on page 84 illustrates the **CLI Port Maintenance** menu and its command. The command displays the status of the Hospitality Integrated Voice Services ports.

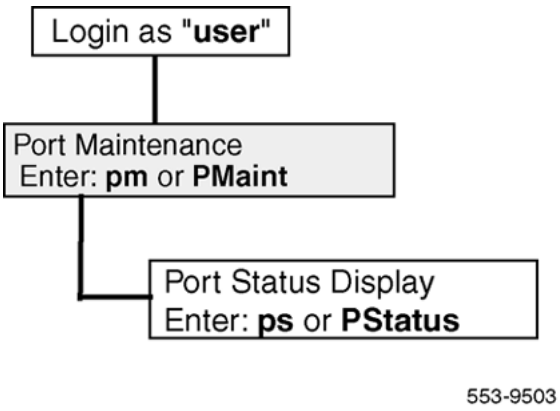

Figure 16: CLI Port Maintenance menu

Port Status display

The **`Port Status (PStatus)`** command displays the status of all Hospitality Integrated Voice Services ports, regardless of their allocation. The possible status for any port is: Idle, Dialing_out, Ringing, Talking, or Disable.

Example:

```
PStatus, ?: ps
```

Table 25: Port Status information

Port_ID	Port_Status	Port_ID	Port_Status
0	DISABLE	4	IDLE
1	IDEL	5	TALKING
2	TALKING	6	RINGING (see Note)
3	RINGING (see Note)	7	TALKING

Note:
Ringing is a very short event.

```
PStatus, ?:
```

Help display

The following help information appears when the **Help (?)** command at the Port Maintenance level is selected.

Table 26: Help display - Port Maintenance command

Short Command	Full Command	Description
ps or **PS**	PStatus	Displays status of all ports

Chapter 8: Maintenance

Contents

This section contains information on the following topics:

Introduction

Approach problem identification systematically. A problem can have more than one cause. To isolate the cause, a knowledge of Hospitality Integrated Voice Services operation is required. Once the cause is identified, correct the problem by replacing the defective card, connecting accidentally-disconnected cables, or correcting the software security problem.

The system and the Hospitality Integrated Voice Services card provide built-in self-diagnostic indicators and software and hardware tools. These diagnostic abilities simplify system troubleshooting and reduce the Mean Time To Repair (MTTR).

This chapter focuses on the maintenance of the Voice Services equipment. It requires that the system operate correctly before beginning to diagnose Voice Services problems. *Communication Server 1000M and Meridian 1: Large System Maintenance (NN43021-700)*, and *&lt* describe how to maintain an entire system. This chapter describes how to maintain the Hospitality Integrated Voice Services card as an integral part of the system.

Diagnostic tools for troubleshooting

Use diagnostic tools to troubleshoot problems in the system, including problems with the Hospitality Integrated Voice Services card. When diagnosing Hospitality Integrated Voice Services problems, it may be necessary to use more than one of the following diagnostic tools:

- LED indicators
- display codes
- card self-tests
- sanity monitoring
- LD commands
- history files

Hospitality Integrated Voice Services card status LED indicator

The Hospitality Integrated Voice Services card has a card LED indicator at the top of the faceplate. The card LED is a red LED that indicates the status of the card. If the LED is ON, the card can be faulty or disabled. When the card is powered on, the card blinks three times during self-test and then it stays ON if functioning correctly. If the card is not functioning correctly, the LED turns ON without blinking and stays ON. The LED turns OFF when the card is software-enabled.

Self-test

Each Hospitality Integrated Voice Services card automatically performs a self-test when it is inserted into an operating system module or when the system is powered up or reset.

The self-test checks general Hospitality Integrated Voice Services card functions and determines whether they are operating correctly. The self-test is useful when the cards are first installed, as the card automatically starts the self-test upon insertion and provides an immediate indication of its operating status.

The self-test is a detailed test and analysis of the installed hardware, both to determine the integrity of the hardware and to establish the configuration of the Hospitality Integrated Voice Services card by checking the processor, the RAM capacity, the Flash memory, the DSP, and so on. The elements that are self-tested are listed in Table 27: Hospitality Integrated Voice Services card self-test elements on page 89.

Table 27: Hospitality Integrated Voice Services card self-test elements

Item tested	Description of action
Processor/coprocessor	Read and store processor ID. Run processor self-test.
DRAM	Check the amount of DRAM installed. Perform R/W test.
PCI chipset	Perform R/W test on selected registers.
System I/O controller	Perform R/W test on selected registers.
PC Card controller	Perform R/W test on selected registers.
DS-30X interface	Test shared memory and perform loopback test over SD-30 Logic Cell Array (LCA).
CE-MUX interface	Test shared memory and perform loopback test over CE-MUX LCA.
PC Card DSP card(s)	Check the presence of DSP cards and initiate diagnostic tests on DSP cards, if present.
PC Card hard drive	Checks the presence of the hard drive and checks the configuration information.
PC Card flash card	Check the presence of flash memory and the Hospitality Integrated Voice Services check configuration information.

Table 28: Hospitality Integrated Voice Services card self-test sequence on page 89 lists the Hospitality Integrated Voice Services card self-test sequence.

Table 28: Hospitality Integrated Voice Services card self-test sequence

Step	Action
1	The card performs a self-test upon insertion.
2	The card LAN polls the card.
3	If the self-test passes, the card sends back a power-up occurred message.
4	The card LAN requests the configuration data.
5	The card returns the configuration data (card type, signaling type, and TN mapping Type 2).
6	The card LAN enables the DS-30X signaling channel.
7	The Hospitality Integrated Voice Services card waits until it receives the configuration data (trunk type, signaling type, balance impedance, and so on) through the DS-30X, but it then discards this data.
8	The card enters its main program loop.

Table 29: Hospitality Integrated Voice Services card Reset command sequence on page 90 lists the Hospitality Integrated Voice Services card Reset command sequence.

Table 29: Hospitality Integrated Voice Services card Reset command sequence

Step	Action
1	The software sends a reset message to the card if no channels are busy.
2	The card sets all appropriate resources to the disabled state and turns on the faceplate LED.
3	The Hospitality Integrated Voice Services card resets and performs a self-test. Self-test results are stored in case the system performs a later query.
4	The card LAN polls the card.
5	If the self-test passes, the card sends back a power-up occurred message.
6	The card LAN requests the configuration data.
7	The card returns the configuration data (card type, signaling type, and TN mapping Type 2) and enables the DS-30X link.
8	The card LAN enables the DS-30X signaling channel.
9	The card waits until it receives the configuration data (trunk type, signaling type, balance impedance, and so on) through the DS-30X, but it then discards this data.
10	The card goes to its main program loop.

Sanity monitoring

Sanity monitoring is a background routine that checks the operation of system resources such as CPU activity and memory allocation. This background routine attempts to restore normal system operation if the system performance has degraded to an unacceptable level. If all else fails, this routine restarts the system to attempt to restore it to normal operation. If the soft reset is not effective, the system initiates a full, board-level reset. If the full reset is not successful, the maintenance LED stays ON.

LD commands

Each card performs diagnostic tests as part of the daily routines or diagnostic tests can be activated from a maintenance TTY or the Switch Management Processor (SMP) (when equipped). Refer to *Communication Server 1000M and Meridian 1: Large System Maintenance (NN43021-700)* for more information.

The Hospitality Integrated Voice Services card appears as an Extended Digital Line Card (XLDC) to the system in which it is installed. Therefore, all relevant system maintenance

commands for an XLDC can be used with the Hospitality Integrated Voice Services card. Enabling and disabling of the ACD digital telephone M2616 is done in LD 32.

Table 30: Commands to enable/disable Hospitality Integrated Voice Services channels on page 91 lists some of the commands used to control the Hospitality Integrated Voice Services card status and functions.

Table 30: Commands to enable/disable Hospitality Integrated Voice Services channels

Overlay	Command	Operation performed
LD 30	UNTT	Performs self-test on the Hospitality Integrated Voice Services card
LD 32	DISC/ENLC	Disables/Enables specified card
LD 32	DISU/ENLU	Disables/Enables specified channel
LD 32	LOOP	Performs a network memory test, continuity test, and signaling test on the specified loop
LD 32	STAT	Obtain status of specified card/channel

The Hospitality Integrated Voice Services card handles the commands listed in Table 30: Commands to enable/disable Hospitality Integrated Voice Services channels on page 91 in the same manner as the XLDC, transparently to the system.

History file

Information on any fault conditions is saved on the Hospitality Integrated Voice Services card to provide a history file for the technician. The file is in the form of a cyclical buffer containing up to 15 KB of error/log reports.

Users can access those files by using the **FTP** command (default user name is **user** and default password is **user**). The buffer is overwritten from the top when it runs out of space. It is configured to use memory resources efficiently.

Hospitality Integrated Voice Services keeps history files in the a:\oam\ directory for up to 32 days. There are two kinds of history files:

1. Logger – history of actions such as password change and other actions. Hospitality Integrated Voice Services stores Logger files in the a:\oam\log directory
2. Error Report for Debug – Hospitality Integrated Voice Services stores error reports in the a:\oam\err directory

Errors and logs are generated daily and kept in a separate file named Eyyymmdd.err/ Lyyymmdd.lgr, where:

- yyy – year (e.g., 099 for 1999, 100 for 2000, etc.)
- mm – month
- dd – day

Fault isolation and correction

Fault clearing procedures for the Voice Services cards are the same as for other IPE cards. Refer to *Communication Server 1000M and Meridian 1: Large System Maintenance (NN43021-700)*, and *&lt* for more information.

Table 31: Hospitality Integrated Voice Services equipment problems on page 92 deals specifically with Hospitality Integrated Voice Services service problems. To diagnose these problems, the table refers to the test procedures in this document that can most likely resolve these problems, based on the symptoms.

Table 31: Hospitality Integrated Voice Services equipment problems

Symptoms	Diagnosis	Solution
Red card LED on the Hospitality Integrated Voice Services card is permanently lit.	Card is disabled or faulty.	Refer to Self-test on page 88 for information on card status and self-test.
Display on the controller card shows fault codes.	Card faulty, failed self-test, or problem communicating with peripheral equipment.	Refer to Self-test on page 88 for information on self-test and self-test on reset. Also, refer to *Avaya Software Input/Output Reference: System Messages (NN43001-712)* for a list of fault codes.
Error messages printed on the TTY or VDT terminal.	Hardware or software problems with Hospitality Integrated Voice Services.	Note the various error messages. Refer to *Avaya Software Input/ Output Reference: System Messages (NN43001-712)* for a list of these messages and their description. Based on the code's description, take the appropriate action to resolve the problem.

If the problem cannot be resolved after using all available diagnostic tools and test procedures, make a list of all the symptoms observed and contact the field service representative.

Acquire failed message

In some instances, Hospitality Integrated Voice Services may have more ports equipped than are being used. For example, eight ports were purchased and there are only enough available Agents in the License to support five additional agents. Another possibility is that expansion may have been planned into the purchase of Hospitality Integrated Voice Services, and more ports are equipped than are currently needed.

Each equipped port on the Hospitality Integrated Voice Services card attempts to log in when the card is powered up. The "acquire failed" messages indicate the application on the Hospitality Integrated Voice Services card is attempting to log in and communicate with the system ports. When ports are not assigned on the system, the "acquire failed" message is received.

To prevent excess generation of "acquire failed" messages on the Hospitality Integrated Voice Services card, follow the steps in Responding to an acquire failed message on page 93.

Note:

If the Hospitality Integrated Voice Services card is reset, perform after Responding to an acquire failed message on page 93 the reset.

Responding to an acquire failed message

1. At the CLI Main Menu: **SAdmin/, SMaint/, PAdmin/, AAdmin/, ADebug/, MIVS/, LOgout**, **?**, enter **AA**.
2. At the prompt **LOading/, MAnaging/, BAckup/?**, enter **MA**.
3. At the prompt **List, SHdow, TErmin, RUN,?**, enter `TE 7; TE 6;TE 5;TE 4`.

Note:

Terminate only the number of applications equal to the unused ports. For example, If only using 6 of eight ports, only terminate two instances of the application: TE 7 and TE 6.

Card replacement

The Hospitality Integrated Voice Services card is based on PC Card technology. This allows the Hospitality Integrated Voice Services card to be removed from the IPE shelf indefinitely or a Hospitality Integrated Voice Services card to be replaced without losing the configuration data.

Follow the steps in Replacing a Hospitality Integrated Voice Services card on page 94 to replace the Hospitality Integrated Voice Services card.

Replacing a Hospitality Integrated Voice Services card

1. Disable the Hospitality Integrated Voice Services card by accessing LD 32 and executing the **DISC l s c** command, where l is the loop, s is the shelf or module, and c is the card in the module. For Avaya Communication Server 1000 (Avaya CS 1000) systems, execute the DISC s c command.
2. Remove the Hospitality Integrated Voice Services card from its card slot.
3. Remove the PC Card from the faulty Hospitality Integrated Voice Services card.
4. Transfer the PC Card to the new Hospitality Integrated Voice Services card.

   Transferring the PC Card to the replacement Hospitality Integrated Voice Services card moves all software, configuration, and records to the replacement Hospitality Integrated Voice Services card.
5. Transfer the Security Device from the faulty Hospitality Integrated Voice Services card to the replacement Hospitality Integrated Voice Services card.

   Note:

   The replacement Hospitality Integrated Voice Services card re-uses the keycode. The keycode is still on the PC Card that was removed from the faulty Hospitality Integrated Voice Services card.
6. Enable the new card by executing the **ENLC l s c** command. For Avaya CS 1000 systems, execute the **ENLC l s c** command.
7. Configure the newly-installed Hospitality Integrated Voice Services card.
8. Package the faulty Hospitality Integrated Voice Services card and ship it to the repair center.

   Note:

   When replacing the PC Card, it is important to back up the data on the PC Card so that there is no need to re-enter the data. For instructions on backing up the data, refer to Archive Database on page 78.

Appendix A: Hospitality Integrated Voice Services product integrity

Contents

This section contains information on the following topics:

Reliability

Reliability is measured by the Mean Time Between Failure (MTBF).

The Hospitality Integrated Voice Services card's MTBF is greater than 88 years.

Environment specifications

Measurements of performance in regards to temperature and shock were made under test conditions as described in Table 32: Hospitality Integrated Voice Services card environmental specifications on page 95.

Refer to Table 32: Hospitality Integrated Voice Services card environmental specifications on page 95 for a list of acceptable temperature and humidity ranges for the Hospitality Integrated Voice Services card.

Table 32: Hospitality Integrated Voice Services card environmental specifications

Specification	Minimum	Maximum
Normal Operation		
Recommended	15¡ C	30¡ C

Specification	Minimum	Maximum
Relative humidity	20%	30% (non-condensing)
Absolute	10¡ C	45¡ C
Relative humidity	20% to	80% (non-condensing)
Rate of change	Less than 1¡ C per three minutes	
Storage		
Long term	–20¡ C	60¡ C
Relative Humidity	5%	95% (non-condensing)
	–40¡ to 70¡ C, non-condensing	
Short term (less than 72 hrs.)	–40¡ C	70¡ C
Temperature Shock		
In three minutes	–40¡ C	25¡ C
In three minutes	70¡ C	25¡ C
	–40¡ to 70¡ C, non-condensing	

Electrical regulatory standards

The following three tables list the safety and ElectroMagnetic Compatibility (EMC) regulatory standards for the Hospitality Integrated Voice Services card, listed by geographic region. Specifications for the Hospitality Integrated Voice Services card meet or exceed the standards listed in these regulations.

Safety

Table 33: Safety regulations on page 96 provides a list of safety regulations met by the Hospitality Integrated Voice Services card, along with the type of regulation and the country/region covered by eachregulation.

Table 33: Safety regulations

Regulation Identifier	Type/country
UL 1459	Safety, United States, CALA
CSA 22.2 225	Safety, Canada
EN 41003	Safety, International Telecom
EN 70950/IEC 950	Safety, International

Regulation Identifier	Type/country
BAKOM SR 784.103.12/4.1/1	EMC/Safety (Switzerland)
AS3260, TS001–TS004, TS006	Safety/Network (Australia)
JATE	Safety/Network (Japan)

ElectroMagnetic Compatibility (EMC)

Table 34: Electro-magnetic emissions on page 97 lists electro-magnetic emissions regulations met by the Hospitality Integrated Voice Services card, along with the country's standard that lists each regulation.

Table 34: Electro-magnetic emissions

Regulation Identifier	Country standard
FCC part 15 Class A	United States Radiated Emissions
CSA C108.8	Canada Radiated Emissions
EN50081-1	European Community Generic Emission standard
EN55022/CISPR 22 CLASS B	Radiated Emissions (basic standard)
BAKOM SR 784.103.12/4.1/1	EMC/Safety (Switzerland)
SS-447-20-22	Sweden EMC standard
AS/NZS 3548	EMC (Australia/New Zealand)
NFC 98020	France EMC standard

Table 35: Electro-Magnetic Immunity on page 97 lists ElectroMagnetic Immunity regulations met by the Hospitality Integrated Voice Services card, along with the country's standard that lists each regulation.

Table 35: Electro-Magnetic Immunity

Regulation identifier	Regulatory standard
CISPR 22 Sec. 20 Class B	I/O conducted noise
IEC 801-2 (Level 4)	ESD (basic standard)
IEC 801-3 (Level 2)	Radiated Immunity (basic standard)
IEC 801-4 (Level 3)	Fast transient/Burst Immunity (basic standard)
IEC 801-5 (Level 4, preliminary)	Surge Immunity (basic standard)
IEC 801-6 (preliminary)	Conducted Disturbances (basic standard)

Regulation identifier	Regulatory standard
BAKOM SR 784.103.12/4.1/1	EMC/Safety (Switzerland)
SS-447-20-22	Sweden EMC standard
AS/NZS 3548l	EMC (Australia/New Zealand)
NFC 98020	France EMC standard

Glossary

A03	Three-Party Conference
ACD	Automatic Call Distribution
AML	Application Module Link
ATT	Attendant
AWU	Automatic Wake Up
BGD	Avaya Communication Server 1000 (Avaya CS 1000) Meridian 1 "Background Terminal" facility
BPS	bits per second
BST	busy tone
BUI	Browser User Interface; an interface that enables the performance of various administrative functions over an intranet through a Web browser
CCOS	Control Class of Service
CE	Common Equipment
CE-MUX	Common Equipment bus MUltipleXed
CISPR	Comit International Spcial des Perterbations Radiolectriques
CLI	Command Line Interface; an interface that an administrator can access either through a serial terminal connection or through Telnet to perform various administrative tasks
CLID	Calling Line Identification
CSA	Canadian Standards Association
DID	Direct Inward Dialing
DLC	Digital Line Card
DN	Directory Number
DND	Do Not Disturb
DRAM	Dynamic Random-Access Memory

DSP	Digital Signal Processor
DTMF	Dual-Tone Multi-Frequency
EEPROM	Electrically Erasable Programmable Read-Only Memory
EMC	ElectroMagnetic Compatibility
ESD	Electro-Static Discharge
FCC	Federal Communications Commission
FFC	Flexible Feature Code
FTP	File Transfer Protocol
ICI	Incoming Call Indicator; an indicator on an attendant console that signals the type of incoming call
IDLB	Agent ID Lower Boundary
IDUB	Agent ID Upper Boundary
IEC	International Electro-Technical Commission; based in Geneva, Switzerland
I/O	Input/output
IP	Internet Protocol
IPE	Intelligent Peripheral Equipment
ISM	Incremental Software Management
LAN	Local Area Network
LCA	Logic Cell Array
LDN	Listed Directory Number
LED	Light Emitting Diode
Mbps	Megabits per second
MB	Megabyte (1,048,576 bytes)
MDF	Main Distribution Frame
MHz	Megahertz
MLWU	Multi-Language Wake-Up

MPU	Main Processor Unit
MSB	Make Set Busy
MSPS	Miscellaneous/SDI/Peripheral Signaling
MTBF	Mean Time Between Failures
MTTR	Mean Time To Repair
NCFW	Night Call Forward
NFC	New Flexible Code
NRD	Not Ready
OA&M	Operation, Administration, and Maintenance
PBX	Private Branch Exchange
PC	Personal Computer
PCI	Peripheral Component Interface
PC Card	PC Memory Card
PMS	Property Management System
PMSI	Property Management System Interface
RAM	Random Access Memory
RAN	Recorded Announcement
RMS	Room Status
SCN	Single Cell Non-Ringing
SDI	Serial Data Interface
SMP	Switch Management Processor
TCP/IP	Transmission Control Protocol/Internet Protocol
TRN	Call Transfer
TTY	TeleTYpe
TUI	Telephone User Interface; a menu-driven interactive interface that enables the performance of certain functions from a DTMF telephone
XDLC	eXtended Digital Line Card

XSDI eXtended Serial Data Interface

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