Meridian 1

Symposium Agent Greeting 2.0

NTVQ09AB Installation Guide

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About this guide

This document describes the steps required to install the Agent Greeting card hardware and software in Meridian 1 systems, and how to configure Agent access to the Agent Greeting features.

Installing the Agent Greeting card

Agent Greeting overview

Agent Greeting enables agents with Agent Greeting Allowed Class of Service to pre-record the greeting which they would normally use to introduce themselves at the start of a customer call. With Symposium Call Center Server, agents can have a skillset specific greeting (“Welcome to Sales, Joe speaking, how can I help you”) and with ACD or MAX based call centers the greeting is generic for calls the agent receives (“Welcome to Company X, Joe speaking, how can I help you”).

The NTVQ09AB Agent Greeting card provides, along with required extra conference capacity, the functionality required to implement the Agent Greeting feature. The Agent Greeting card appears to the Meridian 1 as an Extended Digital Line Card (XDLC) with up to 32 sets attached. These virtual sets must be configured as Meridian Modular M2616 sets. Only 24 of these ports are usable for the Agent Greeting Application, as each Meridian Digital set must have an associated Digital Signal Processor (DSP) port. The Agent Greeting card has an on-board DSP which provides eight ports for greeting, playback, and recording — extra DSP capacity can be added to provide up to 24 ports (using extra DSP Cards providing 8 ports each). The extra conference resources are required to conference the incoming call to the agent with the Agent Greeting port for the duration of the greeting.

Agent Greeting 2.0 introduces the capability to group multiple Agent Greeting cards together to expand the total number of ports, with one card acting as the browser user interface server while any other cards act as clients. A server card in this instance refers to the card through which the group of Agent Greeting cards is administered. Only the server card provides a browser user interface. The client cards are then updated with agent information changes, etc., from the server.

Installation overview table

Table 1 covers the range of systems which support the Agent Greeting feature and outlines the various additional equipment required when installing the Agent Greeting feature.

Table 1: Agent Greeting applicability and compatibility

Agent Greeting	Applicability and compatibility
Meridian 1 Options	11C, 51C, 61C, 81, and 81C
Card slot location	51C, 61C, 81, or 81C any IPE slot except CONT. ***Note:*** On older systems, slots other than 0, 4, 8, and 12 can require rearrangement of the backplane cabling. See “Engineering considerations for Agent Greeting cards” on page 21. Any IPE Slot in an Option 11C
MDF cabling	None (the sets are virtual).
LAN cabling	Complete cabling requires: • (1) NTAG81CA Maintenance Cable • (1) NT8D81AA Backplane to I/O Panel Cable (Older Option 51 to 81C only - See “Engineering considerations for Agent Greeting cards” on page 21) • (1) NTMF94BA RJ45 Octopus Cable • (1) Category 5, 10-Base-T Ethernet standard
Software Release	Release 25 software and later.
Dip Switches settings	None.
Time and Date stamp	Automatically sent out by the Meridian 1 CPU.
Upgrade capability	Yes, loadware upgrades through maintenance port and FTP.
Voice Greeting Storage	A Type II 48 MB PC Card flash card that stores approximately 2000 ten second greetings.
Expandability	2 NTFG95 DSP cards can be installed, each providing 8 additional DSP ports.

Agent Greeting	Applicability and compatibility
Conference capacity Requirements	An additional three-party conference capacity is required for each additional Agent Greeting port: • Large Systems (Option 51C-81C) - Extra XCT card (NT8D17) per 10 ports • Small Systems (Option 11C) - Dual Fibre and Conference card (NTDK84)
Package Information	Package #152, Flexible Services Port.
PEP Information	The following PEPs were integrated into Meridian Release 25.27D: MPLR13091 MPLR13092 These PEPs must be applied for releases earlier than 25.27D. The following PEPs has not yet been integrated and must be applied to all releases: MPLR15521 MPLR15678
Browser Minimum Release Supported	Netscape 6.1 Microsoft Internet Explorer 4.0

Installing the Agent Greeting card

1 Ensure the system has adequate conference capacity to support the number of Agent Greeting ports to be installed. If the capacity is inadequate, install extra XCT cards (large system) or Dual Fiber and Conference cards (small system) as required. These are provided with the product package as required.

2 Choose a Multiple Appearance DN for Telephony User Interface (TUI) access for the Agent Greeting card. This is the number that agents use to configure greetings. Multiple cards should have separate Multiple Appearance DNs assigned, these are then grouped together under a FXS DN as described in “Switch configuration for Agent Greeting ports” on page 29.

3 Determine the cabinet, shelf, and slot location where the Agent Greeting card is to be installed. Refer to “Engineering considerations for Agent Greeting cards” on page 21 for guidelines on slot selection.

4 Unpack and inspect the circuit card. See “Precautions for handling circuit cards” on page 57 for guidelines on handling.

5 Install the 48 MB Type II PC Card flash memory card into the Agent Greeting slot labeled “A:”. The PC Card may first have to be assembled from a Compact Flash module and a PC Card carrier module, which adapts the Compact Flash format to the larger PC Card format. A second PC Card can be added, for additional greeting storage, to the internal facing PC Card slot. If required, install additional DSP cards. See Installing PC Cards and DSP cards on page 18.

6 If not already provisioned, insert the serial number dongle into the socket provided on the Agent Greeting card. It is located in the top left corner of the card between the Dallas RTC device and the CPU (identifiable by its heatsink). The dongle is required for the Agent Greeting application to operate correctly.

7 Insert the Agent Greeting card into its assigned IPE slot. Do not lock latches until the card is cabled.

8 Connect the Agent Greeting cables. Refer to the Cabling the Agent Greeting card on page 21.

9 Fully insert the Agent Greeting card in its assigned slot and lock the latches. During power-up, the hex LED display provides a visual progress indication of self-tests and provides information on the first failure detected. Hex display codes are provided in the “NTVQ09AB Agent Greeting Test and Debug Capabilities” section of the *Maintenance and Troubleshooting Guide.*

10 The red LED on the faceplate of the Agent Greeting card remains lit until a unit has been configured and matched with a DSP port.

11 Configure an Internet Protocol (IP) address for the Agent Greeting card. See “Assigning the Internet Protocol address” on page 24.

12 Configure Agent Greeting virtual sets on the Meridian 1 system. See “Switch configuration for Agent Greeting ports” on page 29.

13 Individual agent sets must be configured to use the Agent Greeting service once the card is operational. See “Adding Agent Greeting service to agent sets” on page 32.

14 If grouping multiple Agent Greeting cards, Browser configuration is only performed on the Server card. See “Configuring Agent Greeting multicard” on page 43 to add an additional card.

15 Log on to the Browser User Interface as the Administrator. See “Accessing the Administrator Browser user interface” on page 33.

16 Configure a keycode for the Agent Greeting card. See “Installing the keycode” on page 33.

17 Create Supervisors in the Browser. See “Creation of supervisors” on page 35.

18 Create Skillsets in the Browser. See “Creation of skillsets” on page 37.

19 Assign Supervisors to Skillsets. See “Assigning supervisors to skillsets” on page 38.

20 Supervisors log on to the Telephony User Interface (TUI) and record Skillset titles. See “Recording skillset titles” on page 41.

21 Log On to the Browser User Interface as a Supervisor. See “Accessing the Supervisor Browser User Interface” on page 40.

22 Supervisors create agents, assign them to skillsets and enable the agents TUI access. See “Creation of agents” on page 41.

23 Agents log on to the TUI and record default and skillset-specific greetings.

24 Agent Greeting card installation is complete.

Upgrade and maintenance information

See “NTVQ09AB Agent Greeting Test and Debug Capabilities” in the *Maintenance and Troubleshooting Guide* for information on Maintenance port access and upgrade and maintenance information.

Installing PC Cards and DSP cards

An Agent Greeting Card must have a PC Card ATA disk inserted in the slot marked A: on the faceplate for correct operation. The standard Agent Greeting Card has 8 ports of DSP capacity on the motherboard by default. Optionally, two Nortel Networks NTFG95 DSP PC cards may be added to increase the DSP port capacity in increments of 8 ports to a total of 24 ports. The number of DSP ports installed is indicated on the faceplate display of an operational Agent Greeting Card by D:XX, where XX is the current number of ports.

Note: Installing DSP cards or standard PC cards in the incorrect slots will not adversely affect the operation of the Agent Greeting card or in any way damage the installed cards.

The DSP cards are installed in faceplate slots D1 and D2 as shown in Figure 1.

PC Cards and Greeting storage

Greetings are stored as files on a DOS-compatible file system. The mechanism used is a Compact Flash card mounted in a PC Card Type II carrier, and is inserted in slot A:. This will appear in the Browser User Interface as the /A: hard disk. A 48 MB flash card will provide storage for approximately 2000 greetings of 10 seconds each.

If more storage is required, a second PC Card Type II flash card can be installed in the “internal” PC Card slot on the Agent Greeting card. The Agent Greeting card must first be disabled in Overlay 32 and then removed from its IPE slot. The second PC Card can then be installed in the internal PC Card slot. This extra card is automatically recognized and appears in the Browser User Interface as the /B: hard disk. The Agent Greeting application automatically uses this extra disk capacity on restart.

Note: When grouping Agent Greeting cards together, each card must have the same disk configuration. If a second flash card is needed, it must be installed in all Agent Greeting cards at the same time.

Table 2: Agent Greeting PC card slots and card type accepted

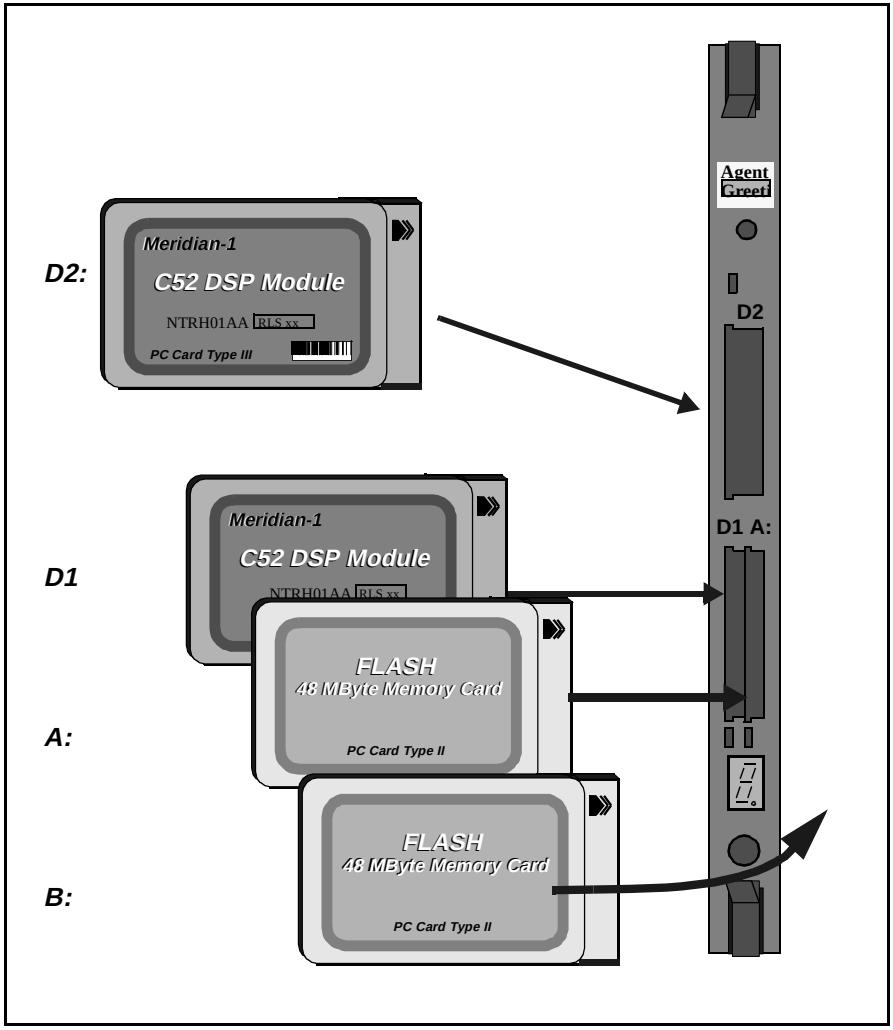
Agent Greeting PC Card slot	DSP (PC Card) card types accepted
A: (needed to store greetings)	Type II PC Card 48MB flash disk.
B: (optional extra greeting storage - internal card slot)	Type II PC Card 48MB flash disk.
D1	NTFG95 (Type II form factor).
D2	NTFG95 (Type II form factor).

Table 3: TN to DSP mapping

DSP	TNs available
On-board (Always available)	0–7
Card # 1 (Faceplate Slot D1:)	8–15
Card # 2 (Faceplate Slot D2:)	16–23

Note: If there is no DSP card inserted in Slot D1, then TNs 8 through 15 cannot be used for Agent Greeting. Similarly, if there is no DSP card inserted in Slot D2, then TNs 16 through 23 cannot be used for Agent Greeting. The configurations supported for units 0-23 are provided in Table 3.

Figure 1: DSP and PC card slot locations



Engineering considerations for Agent Greeting cards

Agent Greeting cards are configured as XDLC cards in the Meridian Overlays. However, they handle a much higher call volume than a standard XDLC card. This is due to the short duration of the greetings, which are generally less than ten seconds in duration. This in turn places a higher than normal load on the Shelf Controller card (XPEC).

Agent Greeting requires three conference ports while each greeting is being played. The Agent Greeting feature will look for conference resources within its own group first. This is done to minimize inter-group traffic which can cause blocking.

Taking into account the above requirements, it is recommended to note the following guidelines when installing Agent Greeting:

- Never configure more than two Agent Greeting cards on one IPE shelf.
- Place any conference resources added to facilitate Agent Greeting in the same switch group as the Agent Greeting cards to minimize inter-group traffic.

Cabling the Agent Greeting card

The following cables are required for cabling the Agent Greeting card:

- NTAG81CA Maintenance cable for Agent Greeting card
- NT8D81AA Backplane to I/O panel cable (Option 51C to 81C only).
- NTMF94BA RJ45 Octopus cable (provides Ethernet port and Debug/Maintenance RS-232 port).
- (1) Category 5, 10-Base-T Ethernet standard cable.

The NTAG81CA Maintenance cable is used to connect directly to the Agent Greeting card's Debug/Maintenance port. An example of use would be for the static configuration of an IP address of the Agent Greeting card. See "Assigning the Internet Protocol address" on page 24.

On new Option 51C to 81C Meridian 1 systems (including and after IPE Shelf vintage NT8D37EC) any IPE slot can be used to house the Agent Greeting card. On older Option 51C to 81C Meridian 1 systems, by default, only slots 0, 4, 8, and 12 can be used for Agent Greeting cards, as these are fully wired on the IPE shelf backplane. If the card is placed in any other slot, an NT8D81AA Backplane to I/O Panel cable must be installed to connect all the required signals to the I/O panel.

The NTMF94BA cable breaks the backplane signals out into an Ethernet port (10-Base-T) and a serial RS-232 port. This is the same RS-232 port that is presented to the faceplate Mini-DIN connector.

Caution

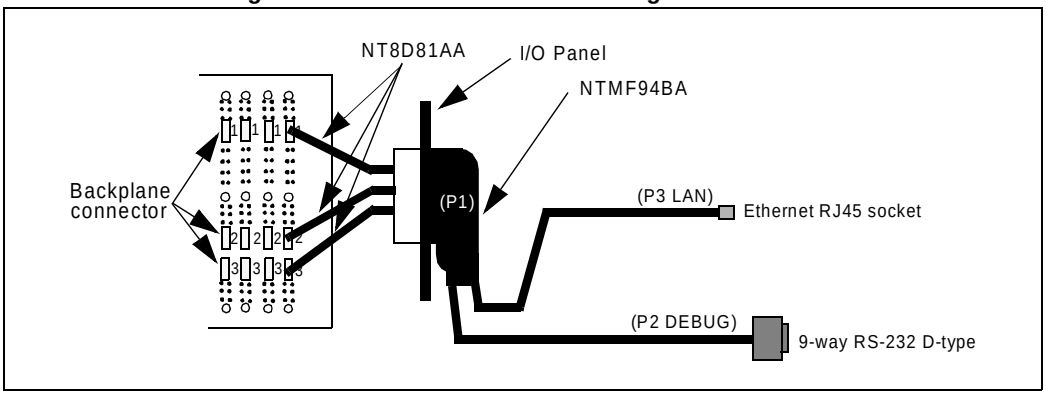
Do not connect terminal equipment to both the Backplane Serial Connector on NTMF94BA and the Faceplate Serial Connector on NTAG81CA. These are physical cabling options for the same serial port.

The Ethernet port on the NTMF94BA has a single female RJ45 connection, so that a standard 10-Base-T Ethernet cable can be used to connect it to the LAN/hub.

See Figures 2 and 3 for cabling the Agent Greeting card.

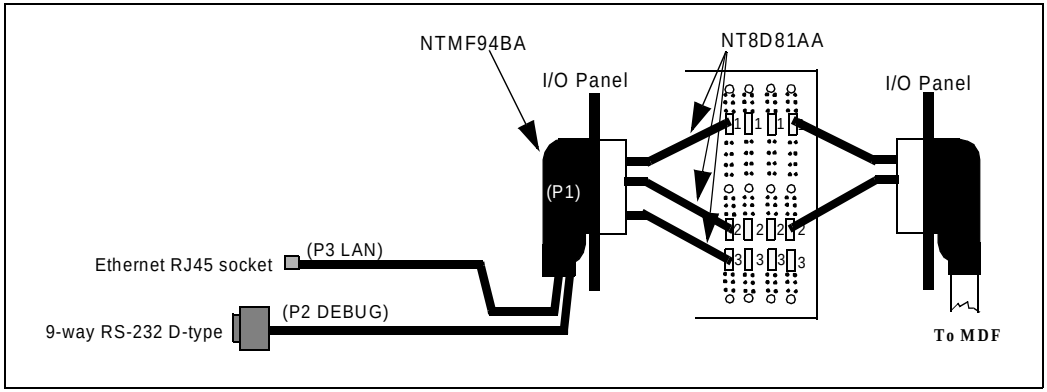
The NTMF94BA cable is secured to the I/O panel using a screw and a cable tie.

Figure 2: NT8D37EC shelf cabling



On the NT8D37EC shelf (see Figure 2:), the backplane connectors L1, L2, and L3 from each card slot, cable to an I/O connector. With the NT8D37EC shelf, an Agent Greeting card works in any card slot from 0 to 15.

Figure 3: NT8D37DC shelf cabling



On the NT8D37DC shelf (see Figure 3), the backplane connectors L1, L2, and L3 from card slot 0, 4, 8, and 12 are cabled to I/O connectors A, E, K, and R. The remaining card slots have only backplane connectors L1 and L2 cabled to the I/O connectors. With the NT8D37DC shelf, an Agent Greeting card only works in card slots 0, 4, 8, and 12, unless you install cable NT8D81AA.

Assigning the Internet Protocol address

Agent Greeting allows two basic methods of assigning IP addresses to individual cards. These are static assignment through the Maintenance and Debug Serial Port and dynamic assignment using Dynamic Host Configuration Protocol (DHCP).

It is recommended that a Static IP address be assigned to the card unless a Reserved IP address entry can be made in the DHCP server, which will always give the reserved IP address to the Agent Greeting card.

Every Agent Greeting card in a node must be configured with an IP address and connected to the network.

DHCP IP Address Assignment

DHCP is used to determine the network configuration of each Agent Greeting card in a dynamic fashion. DHCP aims to reduce the work necessary to administer an IP network by using a server to allocate network addresses and is an extension of the earlier BOOTP protocol. DHCP also allows automatic reuse of addresses by specifying a lease time. Clients must renew the lease periodically. This is done automatically as part of the protocol.

The client (Agent Greeting card) first broadcasts a discovery message containing its Ethernet address as a client identifier. A DHCP server then replies with an offer message, containing configuration parameters. The client can receive offers from multiple DHCP servers. The client must then select a server by broadcasting a request message containing the server identifier. The server then acknowledges the reply and assigns the configuration to the client. The client can now use the assigned configuration.

The DHCP server should assign a reserved address to the Agent Greeting card to guarantee that the card always receives the same IP address. Otherwise, the Agent Greeting card must have an assigned DNS name to ensure that it can always be found using a Web Browser. If the local DHCP server provides long lease periods, this may not be necessary.

Static IP Address Assignment

Using static assignment, the operator assigns an IP address, Subnet Mask, and default Gateway IP address through the serial port interface using the functions lnIsa_progSubnetMask, lnIsa_progIP, and lnIsa_progGW. These functions set the Subnet Mask, IP, and default Gateway IP addresses respectively, and store them in the Non Volatile RAM (NVRAM). On a reboot, the Agent Greeting card will retrieve the IP information from NVRAM and applies it. To switch to this mode of IP assignment, the function lnIsaIPMethodSet must be invoked with the parameter 2 (that is, lnIsaIPMethodSet 2). Below is the command sequence to assign a static IP address to the card.

Caution

Assigning an IP address requires great care to ensure that you have a unique IP address, the correct subnet mask, and the correct gateway address. An incorrect IP address or Subnet Mask can bring down the entire LAN to which the card is connected. An incorrect Gateway Address means that the card is inaccessible beyond its local LAN.

The installer must access the Agent Greeting card through the serial port as shown below. The default username is “vpsdseuser” and the default password is “welcome2vp.”

The terminal connected to the serial port requires these settings: 9600bps, 8 data bits, 1 stop bit, no parity, and no flow control.

Sample session for serial port access:

VxWorks login: vpsdseuser

Password: <password not echoed for security>

> > lnIsa_progSubnetMask “255.255.255.0” <CR>

value = 0x0

> lnIsa_progIP “10.234.125.11” <CR>

value = 0x0

> lnIsa_progGW “10.234.125.1” <CR>

value = 0x0

> lnIsaIPMethodSet 2

Note: The IP address, Subnet Mask and Gateway address must be in quotes (“ “). All commands are acknowledged by “value = 0x0”. If a non-zero value is returned an error has occurred. The IP settings shown above are for example only, locally valid IP addresses must be assigned.

The card must now be reset by pressing Reset on the faceplate. The lnIsaIPMethodSet function has three possible options: 1 - use DHCP for IP address assignment, 2 - use static IP address information stored in NVRAM, 3 - Hybrid (not recommended for Agent Greeting).

Caution

The Subnet Mask assigned will determine the IP address space that the Agent Greeting card can access. It is imperative that the Subnet Mask assigned is correct for the local LAN, otherwise network operation will be compromised. Please liaise with the local IS department to ensure the correct Subnet Mask is assigned.

Always assign the Subnet Mask to the card first, then IP Address, then Gateway Address. The mask and IP address are used in the validation of the Gateway address, so Gateway address assignment may fail if these commands are executed in a different order.

The parameter to lnIsa_progSubnetMask is a string containing the dot notation representation of the Subnet Mask for the subnet to which the card is to be connected.

The parameter to lnIsa_progIP is a string containing the dot notation representation of the IP address to be assigned to the card.

The parameter to lnIsa_progGW is a string containing the dot notation representation of the IP address of the default router for the local LAN. Note that the Gateway address must be an IP address in the local subnet of the IP address previously assigned to the card using lnIsa_progIP. If a gateway address is not configured it will not be possible to access the Agent Greeting card from outside the local subnet.

To return to DHCP IP address assignment, execute the following command on the Serial Maintenance port:

> lnIsaIPMethodSet 1

Changing the Static IP address

The static IP address information can be changed at any time by repeating the above procedure. The change takes place immediately. Any existing IP based sessions will be lost (e.g. BUI, Telnet) and must be reconnected to the new IP address.

Changing the username and password for command line access

The Logon password and username can be changed by using the command shellPasswordSet. The username and password must both be between eight and ten characters long:

> shellPasswordSet
Enter current username: username1
Enter current password: password1
Enter new username: username2
Enter new password: password2
Enter new password again to confirm: password2:value = 0

>

If a non-zero “value” is returned, the password and username have not been changed.

Username and Password applicability

The same username and password are used for maintenance port command line access, telnet access and FTP access.

Switch configuration for Agent Greeting ports

Enable Package #152 – For Agent Greeting to be configured, the Flexible Services Port (FXSP) package, number 152, must be enabled.

Note: The Agent Greeting Ports appear to the Meridian switch as M2616 digital sets and must be configured as such. These sets are grouped together using MADN, and are further grouped together using the FXSP (Flexible Services Port) field as described below.

The sequence of configuration is:

1 Select MADNs for the TUI ports in the Agent Greeting configuration. A new MADN number is required for each Agent Greeting card in a multicard group. All unassigned DNs may be listed using LD 20, REQ PRT, TYPE LUDN.

2 Configure the Agent Greeting Ports as type M2616 in LD 11 as shown in Table 4 on page 29.

3 Assign each MADN to the FXSDN group in LD 15 as shown in Table 5 on page 30.

4 Enable the Agent Greeting cards in LD 32 as shown in Table 6 on page 31.

5 Enable the Agent Greeting Class of Service on the Agent sets in LD 11 (for digital sets) as shown in Table 7 on page 32.

LD 11 – The Agent Greeting units 0 to 23 (on each card if in a Multi-Card installation) are configured as Meridian Modular M2616 sets with configuration shown in Table 4.

Table 4: LD 11 Agent Greeting port configuration

Prompt	Response	Description
REQ:	NEW CHG	Add or change.
TYPE:	2616	Ports **must** be configured as M2616.
TN	l s c u	Terminal Number
DES	d..d	Designator
CUST	0-99	Customer Number
...		

CLS	 FXSP **FLXA**	Class of service entries are separated by a space. FXSP = Flexible Services Port **Required for ports 16–23 only.**
...		
KEY	0 MCR xxxx	Key 0 defined as the TUI multiple appearance FXS DN. **Note: This must be defined on Key 0.**
KEY	1 -15	UNCONFIGURED.

LD 15 – Under FTR_DATA, use the FXSP (Flexible Services Port) field. When FXS YES is entered, the prompt FXSDN appears which allows an FXSDN to be added or removed.

A maximum of 10 FXSDNs can be defined per customer allowing 10 Agent Greeting cards to be grouped together on a single switch. Any MADN assigned to an FXSDN is grouped together with the other FXSDN MADNs for Agent Greeting call handling. The Agent Greeting call volume is distributed across all the virtual Agent Greeting sets assigned to FXSDNs.

When FXS NO is entered, the Agent Greeting feature is disabled.

Only one of the Multiple Appearance DNs need to be given to agents as their TUI DN. The FXSDN service handles spreading the TUI calls across all the virtual Agent Greeting sets in the FXSDN MADN list.

Table 5: LD 15 Agent Greeting port configuration

Prompt	Response	Description
REQ:	NEW CHG	Add or change.
TYPE:	FTR_DATA	Feature Data
CUST:	0–99	Customer Number

...		
ASPCT		(existing prompt)
FXS	YES (NO)	Flexible Services
FXSDN	yyyy	add MADN for first card to list
FXSDN	zzzz	add MADN for second card to list
FXSDN	Xyyyy	delete an existing entry
FXSDN	<CR>	exit FXSDN

LD 32 – This overlay is used to enable and disable Agent Greeting cards. The status of specific cards and units can also be checked.

Caution

Never enable more ports on an Agent Greeting card than the Keycode or DSP infrastructure allow (whichever is the lower). Otherwise, agent calls get routed to unprovisioned ports and no greeting is played.

Note: The base card DSP capacity is 8 ports; each additional DSP module adds another 8 ports to a maximum of 24 ports. The number of ports enabled by the keycode appears on the faceplate by K:*XX*, where *XX* is the number of enabled ports.

Table 6: LD 32 Agent Greeting port enable

Command	Description
ENLU l s c u	Enable the pre configured unit.

Note: It is recommended that the operator disable all Meridian Modular or Meridian Digital units in LD 32 before moving (MOV) or removing (OUT) them in LD 11. This is because the Agent Greeting card does not receive any messages from the Meridian 1 on a move or an out. This can lead to Agent Greeting ports being left in an indeterminate state, as no indication that the port has been moved or outed is received by the Agent Greeting card.

Adding Agent Greeting service to agent sets

LD 11 - Overlay 11 is used to configure Agent Greeting functionality on an agent's set. This is done by adding the AGRA (Agent Greeting Allowed) Class of Service to the set. AGRD (Agent Greeting Denied) is the default configuration. Once AGRA is enabled on a set a conference with an Agent Greeting port will be setup for each ACD call presented to that set. Agent ID and Skillset information (if available) will be passed to the card to enable greeting match and playback. If no greeting is matched a brief tone is played, the conference is ended and the call continues as normal. This tone informs Agents that the AGRA is enabled and that they should record their personal greetings.

The MOAA (Mute On Agent Answer) Class of Service causes the agent's speech path to be muted while the greeting is being played. The agent can still hear the caller should they speak during the greeting. The greeting playback can be cancelled by the agent by entering the greeting cancel digit sequence (which defaults to "83"). The default setting is MOAD (Mute On Answer Denied).

Table 7: LD 11 Configuring agent sets with the Agent Greeting feature

Prompt	Response	Description
REQ:	NEW CHG	Add or change.
TYPE:	xxxx	Agent set type
CUST:	0–99	Customer Number
TN	l s c u	Terminal Number
...		
CLS	AGRA	Agent Greeting Allowed
	MOAA	Mute On Agent Answer

Accessing the Administrator Browser user interface

Once the above installation is complete, the Administrator can access the Browser using the IP address assigned to the Agent Greeting card (see “Assigning the Internet Protocol address” on page 24). If multiple cards are to be installed in a group, select one card’s IP address and access the browser on this card only - when the keycode is entered on this card it will become the server card. Other Agent Greeting cards will be clients.

This is done using the URL http://*aaa.bbb.ccc.ddd*/ where *aaa.bbb.ccc.ddd* is the IP address assigned to the Agent Greeting card. Alternatively, if a DNS name has been assigned to the card, the URL http://dns_name/ can be used.

On going to this URL, the user is presented with a Username/Password dialog box. The default Username is “admin.” and the default password is “pwd.” On entering this password, the user is presented with a Browser User Interface as seen in Table 4: on page 34.

Installing the keycode

The keycode is installed by navigating the browser tree on the left side of the Browser User Interface to the Pack > Administration > Modify/Remove page as seen on page 35.

The keycode string is entered in the Keycode fields provided. Once Modify is clicked, the card information is updated. The keycode encodes the number of Agents that can be configured on the system. The browser will report a successful keycode install or if the keycode has been rejected.

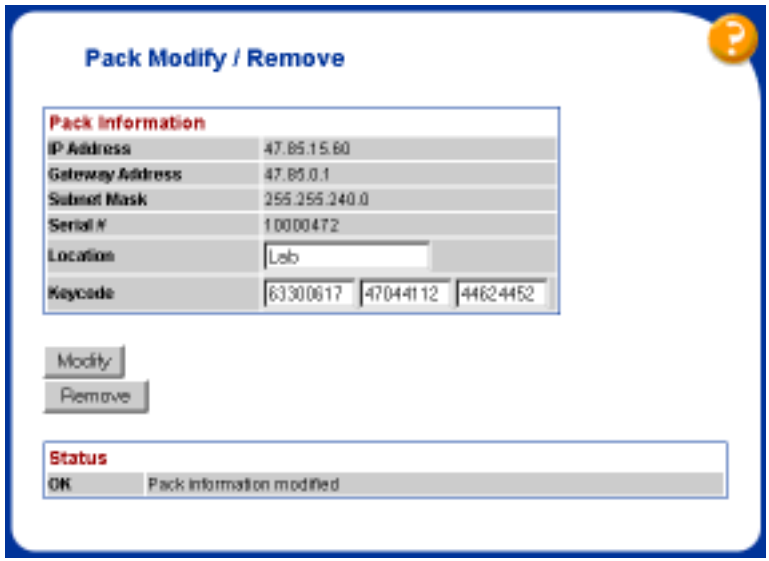
Installing a keycode turns the Agent Greeting card into a server. Multiple cards can share the same configuration by being grouped together. Client cards do not have a Browser interface, and are not assigned a keycode. The server card distributes the keycode information to the additional Agent Greeting cards.

Figure 4: Browser User Interface Administrator logon frame

Keycodes limit the number of agents that can be configured on the Agent Greeting BUI. Any DSP ports added to the Agent Greeting group are used once the card has been added to the group.

The keycode installation is now complete.

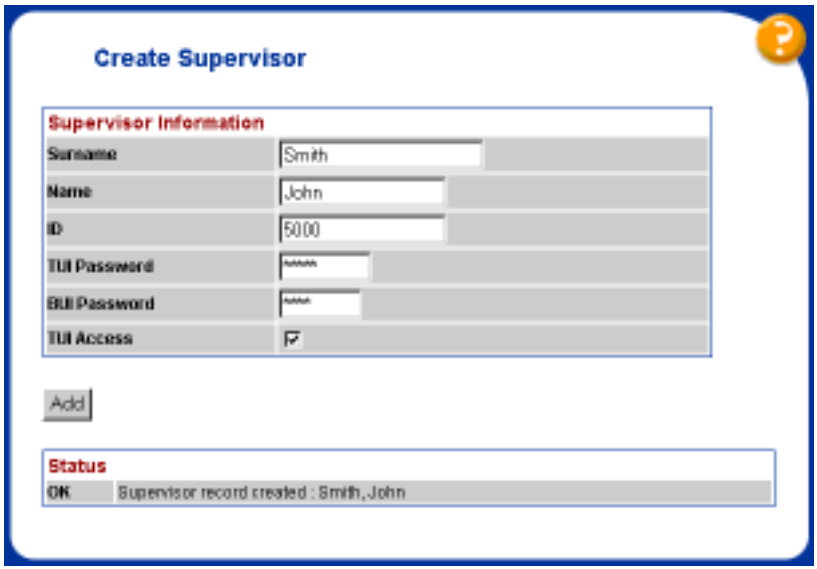
Figure 5: Pack Modify / Remove Browser frame



Creation of supervisors

The Administrator can now create Supervisors. Choose Supervisor > Create from the Navigation Tree. Enter the supervisor's information, and then click Add to add each supervisor to the database.

Figure 6: Create Supervisor Browser frame



Creation of skillsets

For Symposium-based call centers, skillsets can be created by choosing Skillset > Create from the Navigation Tree. For MAX or ACD installations Skillset specific greetings are not supported - only default greetings per agent are supported.

Skillset matching & Symposium

The skillset name entered must exactly match the first word that will be presented in the agent's display. This first word must be unique. If the skillset name contains more than one word, then either the first word must be unique or the multiple words must be bridged together using underscores (in both Symposium and the Agent Greeting skillset entries).

Ensure that the Phoneset Display Presentation parameters in Symposium are configured to be at least as wide as the skillset name, otherwise skillset matching will fail.

Figure 7: Create Skillset Browser frame

Assigning supervisors to skillsets

Skillsets must be assigned to supervisors to allow supervisors to assign agents to the skillset. Only then can agents record skillset-specific greetings. This can be done by choosing Supervisor > Assign Skillset from the Navigation Tree.

Figure 8: Assign Supervisor to Skillset Browser frame

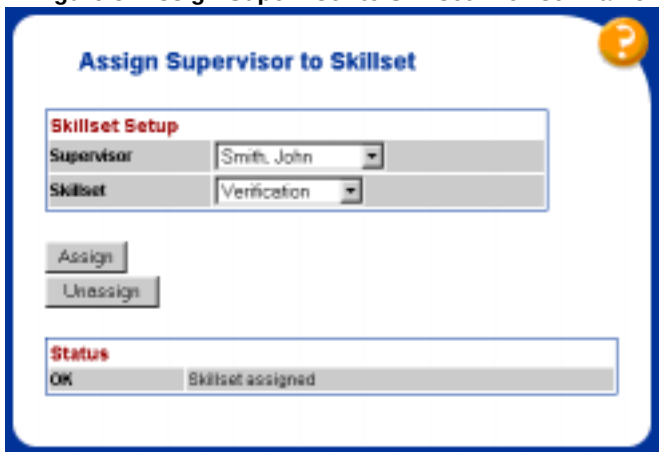
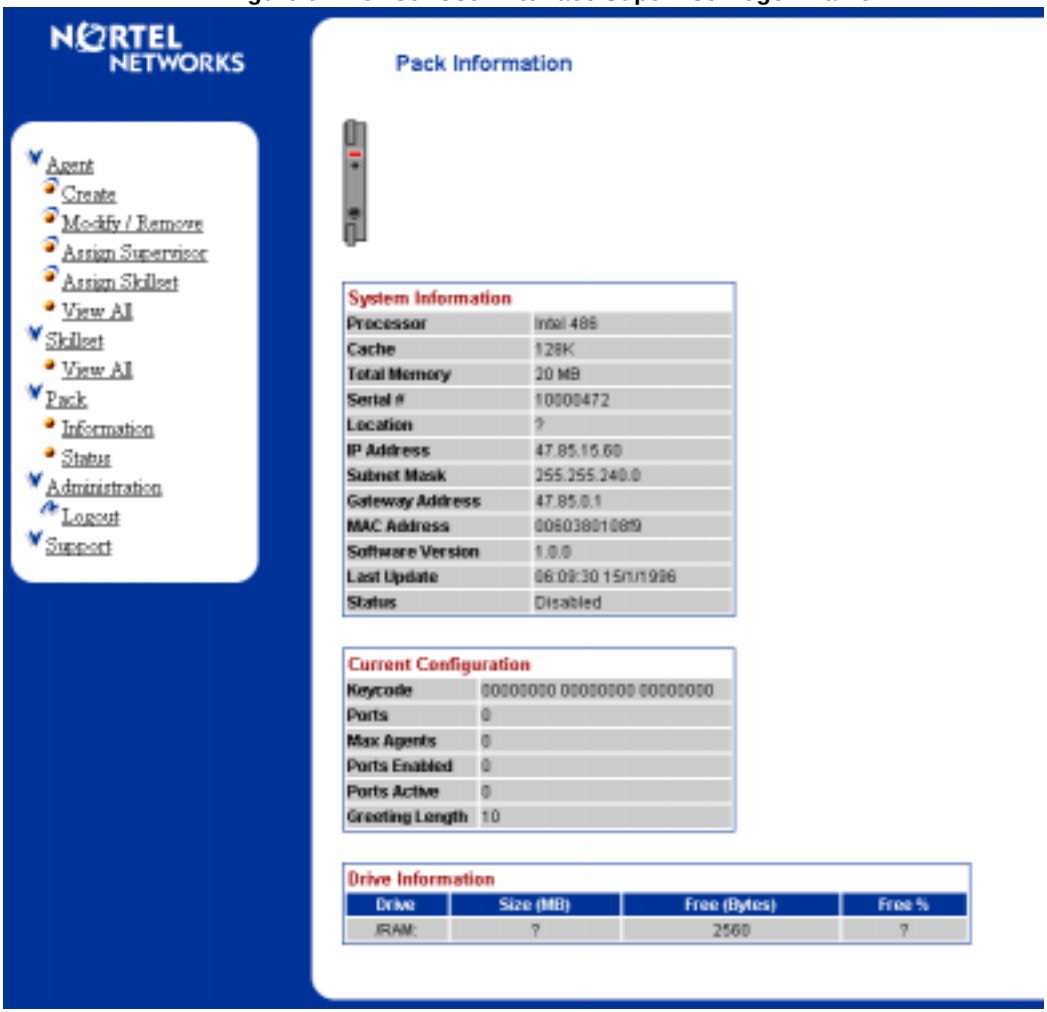


Figure 9: Browser User Interface Supervisor logon frame



Accessing the Supervisor Browser User Interface

The supervisors are now ready to be used. Supervisors can now log on to the pack (using the same URL as described in “Accessing the Administrator Browser user interface” on page 33) and create agents. When supervisors log on to the BUI, their user name is their agent ID and their password is that which was assigned by the administrator when the supervisor was created.

Note: Agents created by a supervisor inherit the skillsets assigned to that supervisor.

The logon Browser page for supervisors is shown in Table 9: on page 40

Recording skillset titles

Once a skillset is created, the supervisor to whom it is assigned must record a skillset title for that skillset. This is done by the supervisor logging on to the Telephony User Interface (TUI) and accessing the Skillset Title Menu for each skillset, where he or she can record the skillset title. The skillset title is used in the TUI to identify a particular skillset when an agent is navigating through the TUI. If no skillset title is recorded, then the skillset number as assigned in the Browser User Interface is used to identify the skillset. However, this is cryptic for agents, and skillset titles are strongly recommended.

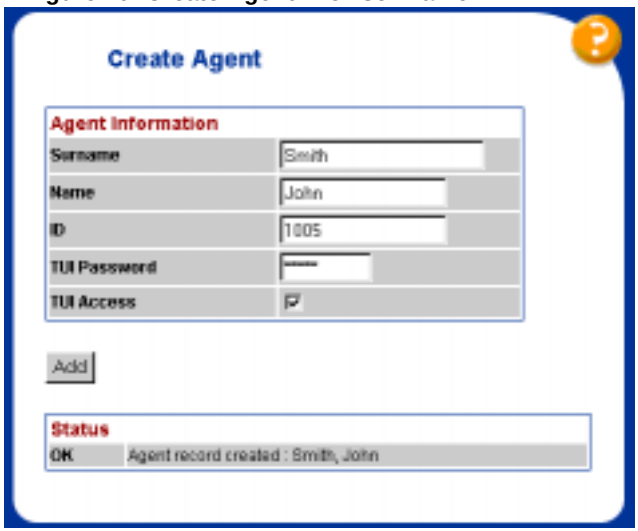
Note: For clarity in the TUI flow, it is recommended that Supervisors skillset tag recording be in the form:

“Skillset <skillset name>”

Creation of agents

To enable agent access to the Telephony User Interface (TUI), supervisors create agents and assign them to skillsets. Once an agent has been assigned to a skillset they can record their default and skillset specific greetings using the TUI.

Figure 10: Create Agent Browser frame



Configuring Agent Greeting multicard

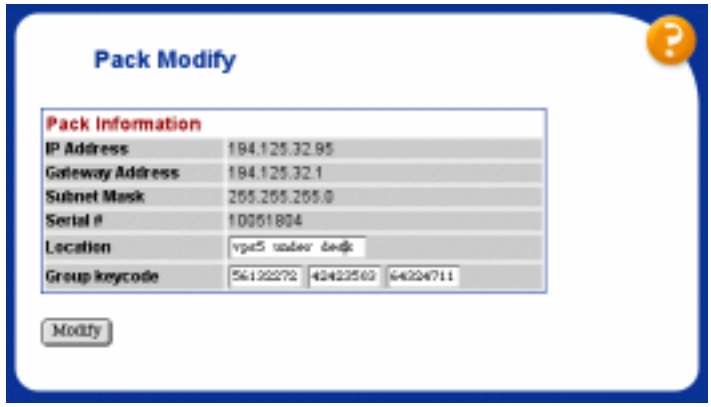
Agent Greeting Multicard configuration frames can only be accessed by an Administrator.

A single Agent Greeting card can be configured with a maximum of 24 ports. Multiple Agent Greeting cards can be grouped together to increase the number of ports available to an FXS DN.

1 Configure all Agent Greeting cards to be grouped together with a MADN which is then configured as one of the ten possible FXS DNs. The procedure for each card is covered in “Installing the Agent Greeting card” on page 15.

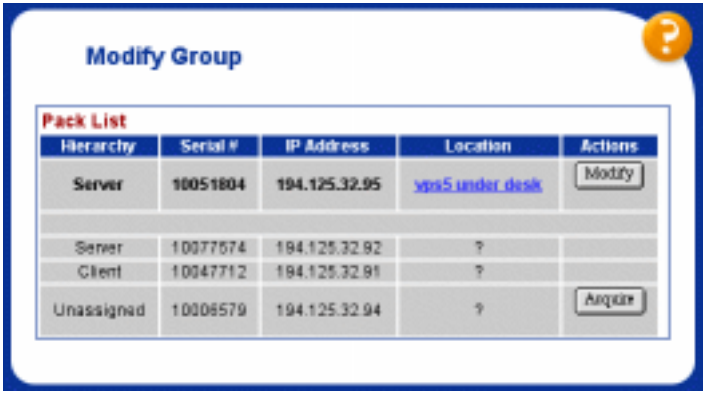
2 The first card to be configured using the Browser becomes a server card once you enter a keycode in the Pack Modify frame.

Figure 11: Pack Modify Browser frame



3 Do not configure the client cards individually. Instead, add client cards to the Multicard group using the Modify Group Browser frame on the server card.

Figure 12: Modify Group Browser frame.

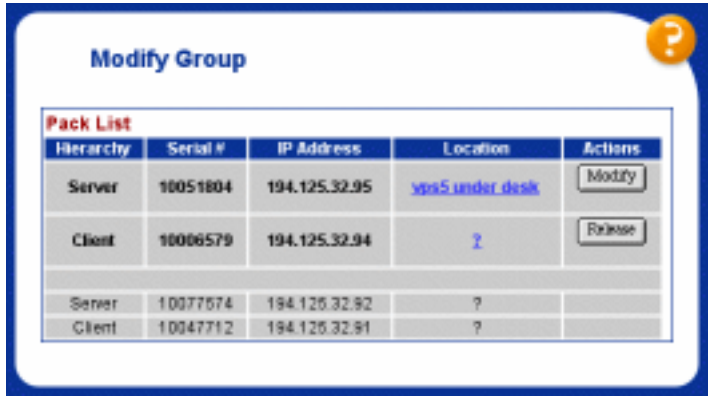


4 Use the Modify Group frame to add unassigned cards to the group by clicking Acquire. The server then connects to the Unassigned card, converts it to a client card, and reboots it. The client card takes a few minutes to reboot.

5 The server then reconnects and transfers all agent and Skillset configuration to the client. Any recorded Agent Greeting prompts are also transferred. If the system has been installed for a long time and has a large number of agents configured it can take up to two hours to synchronize all the data and greetings. If this is the case, the card should be placed in the disabled state (DISC in LD 32) for this period of time. It can then be enabled again (ENLC in LD 32). Failure to do this may result in Agents, on some occasions (when the new card is selected to play a greeting), not getting a greeting prompt played, a brief tone will be played instead.

6 Once the client has rebooted, it becomes part of the group. All cards in the group share the same Agent Greeting FXS DN and can service any call on any port. Updated agent prompts are automatically shared by all cards.

7 You can remove client cards from the group by clicking Release.



8 Agent Greeting cards are uniquely identified by their dongle ID. This allows multiple cards to be configured together, and then identified when grouping them in the Pack Modify frame.

9 You can monitor all Agent Greeting cards on the network using the View All Cards frame. This list can contain other Server, Client, or Unassigned cards. All currently active cards are listed. If a card is not available on the network it will not be shown in this frame. Previously assigned cards which are currently not available on the network can be seen “ghosted” in the Pack Status frame.

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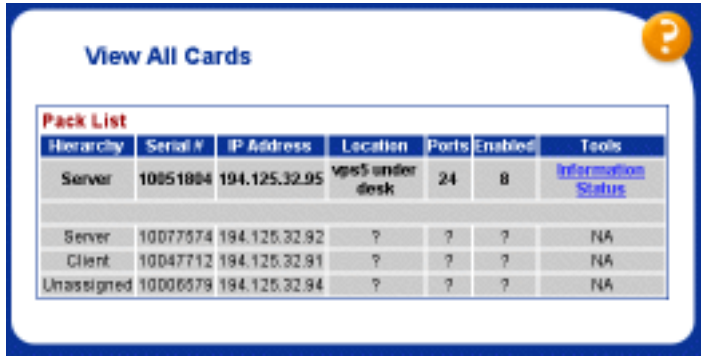


Changing a client card into a server

There are certain circumstances when you may wish to change a card which had been a client into the server card, for example, should the server card become faulty. This is simply done by removing the dongle from the server card and replacing the client's dongle with the dongle removed from the server card. On reboot the client card will become the server card.

There is no need to do a Restore to the server card, as the client already has all the greetings and agent information that the old server had. In fact, it is likely to be even more up-to-date than the backup database, as all changes are propagated to the client cards in real-time.

Using the Telephony User Interface

Accessing the Telephony User Interface

All agents and supervisors can access the Telephony User Interface (TUI) by dialing the DN configured as the FXSDN as described in “Switch configuration for Agent Greeting ports” on page 29. The TUI menu flows are shown on the following pages.

Using the Telephony User Interface

There are three main operations to be carried out by users of the Telephony User Interface.

- Record Skillset tags (names) - recorded by supervisor.
- Record Time of Day introductory phrases (these are prepended to greetings dependant on the time of day - morning, afternoon, evening - when TOD is enabled in the Browser User Interface) - recorded by agent.
- Record Greetings - recorded by agent.

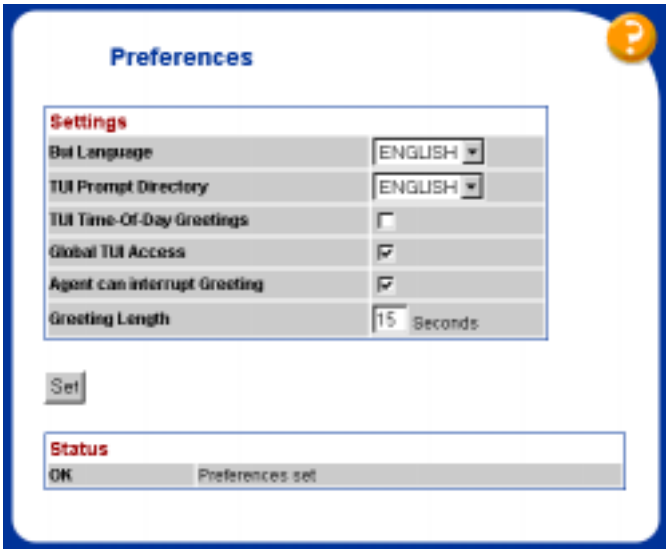
Skillset tags should be recorded by supervisors when a skillset has been assigned to them. The skillset tag is the name used in the Telephony User Interface for a skillset when agents are navigating through their greetings. If skillset tags are not recorded then skillsets are identified by the skillset number they were assigned when created in the BUI. This is not very intuitive, therefore, it is strongly recommended that the skillset tag is recorded as soon as the skillset has been created.

Time of Day (TOD) introductory greetings may be recorded to provide a customary time related salutation at the start of a greeting. For example, “Good Morning”, ”Good Afternoon” or “Good Evening”. These introductory greetings are prepended to the main greeting (default or skillset specific) when TOD is enabled in the BUI. Care must be taken when recording TOD greetings to ensure that they naturally run into the main greetings. If long silences are left at the end of the greeting or if the intonation is not in keeping with the main greeting, it will sound strange when concatenated together. It may take a few attempts to get a natural flow to the TOD and main greetings.

Three Time of Day introductory greetings can be recorded - morning (12 Midnight to 12 Noon), afternoon (12 Noon to 6PM) and evening (6PM to 12 Midnight). The Agent Greeting card date and time is synchronized to the Meridian CPU date and time. Therefore, the TOD greeting played is dictated by the local time on the Switch.

Finally, agents must record their default and skillset specific greeting. If the Agent Greeting card cannot find or fails to match a greeting to the agent information presented at call setup, a brief tone is played. This is intended to prompt the agent to record a greeting. If an agent is identified by the Agent Greeting card from the agent information presented at call setup, but no skillset specific greeting is found or if the skillset specific information does not match a recording (this may be because skillsets are not supported, as in an ACD or MAX environment, or due to an error in the entry of the skillset name in the BUI - see “Creation of skillsets” on page 37), the default greeting is played.

Figure 13: Preferences Browser frame



Changing the language for the TUI and BUI

The TUI and BUI can be configured to provide prompts and frame text in various languages. The language selected can be changed using the preferences context frame - this frame is only available to the administrator. A drop-down menu of all available language types is available. Once a new language has been selected, all further TUI prompts are given in this language, and all following BUI accesses appear with text in that language, if available.

To support extra languages it is necessary to populate the PC Card flash memory card in Slot A: with prompt sets for the additional languages. This can be done using FTP. Follow these steps:

1 Download the desired zipped language prompt set from the Nortel Networks website to a PC installed with an FTP client. Your local support representative can provide the specific site URL for your region.

2 Unzip the prompt set into a folder on the PC named with the language of the prompts (for example, for German, call the folder DEUTSCH).

3 In Meridian Overlay 32, disable the Agent Greeting card to be updated, using the DISC command.

4 Use the FTP Client on the PC to open an FTP Session to the IP address (or assigned DNS name) of the Agent Greeting card to be updated. The default username and password are the same as the telnet username and password described earlier, (that is, vpsdseuser and welcome2vp). Changes to the username and password using shellPasswordSet as described above also changes the telnet username and password.

5 Once you are logged on, change directory to /A:/TUI/ on the Agent Greeting card.

6 Transfer the folder containing the language prompts (DEUTSCH in the example above) to the /A:/TUI/ directory. The TUI folder on the card should now contain two folders—ENGLISH and DEUTSCH.

7 Close the FTP session to the Agent Greeting card.

8 In Meridian Overlay 32, enable the Agent Greeting card to be updated, using the ENLC command.

9 The new prompt set is now installed and can be seen in the drop-down language menus in the BUI Preferences frame (seeTable 13:).

10 Set the BUI Language preferences and the TUI Prompt Directory to the preferred language option.

11 The next BUI access is in the chosen language, and any subsequent TUI access will have prompts in the chosen language.

12 Language installation is now complete.

Telephony User Interface Menu Flows

Figure 14: TUI Main Menu

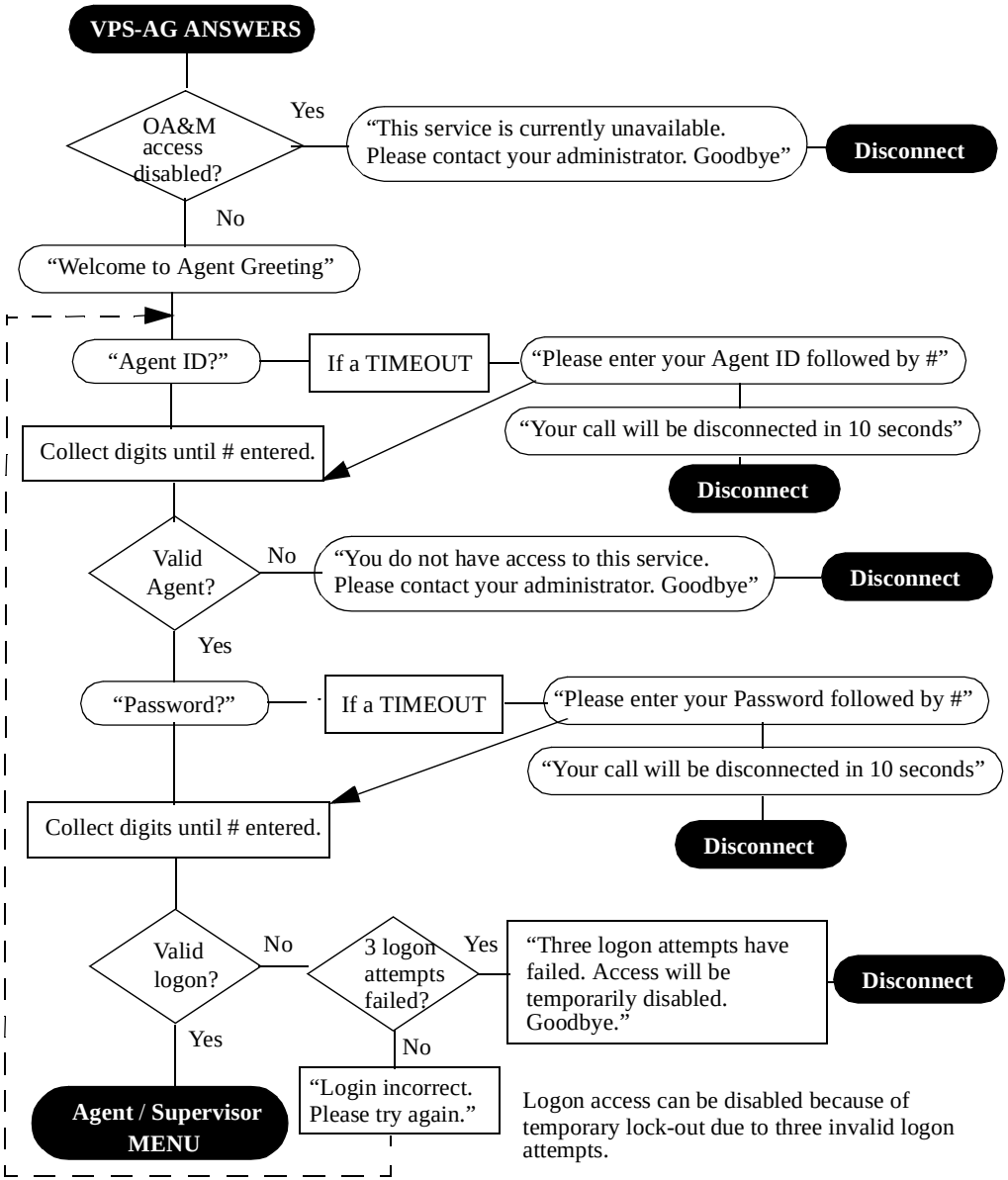


Figure 15: TUI Agent menu

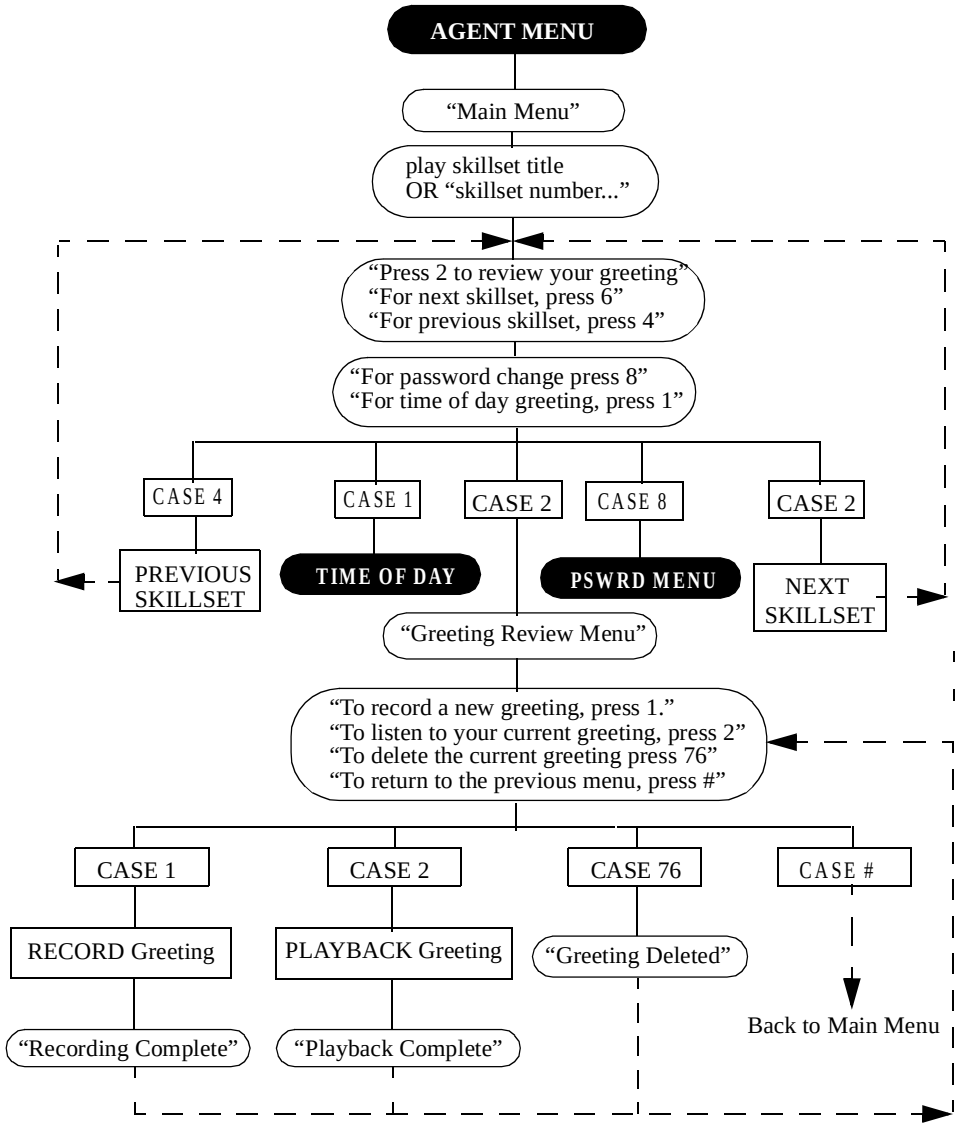


Figure 16: TUI Password Change Menu

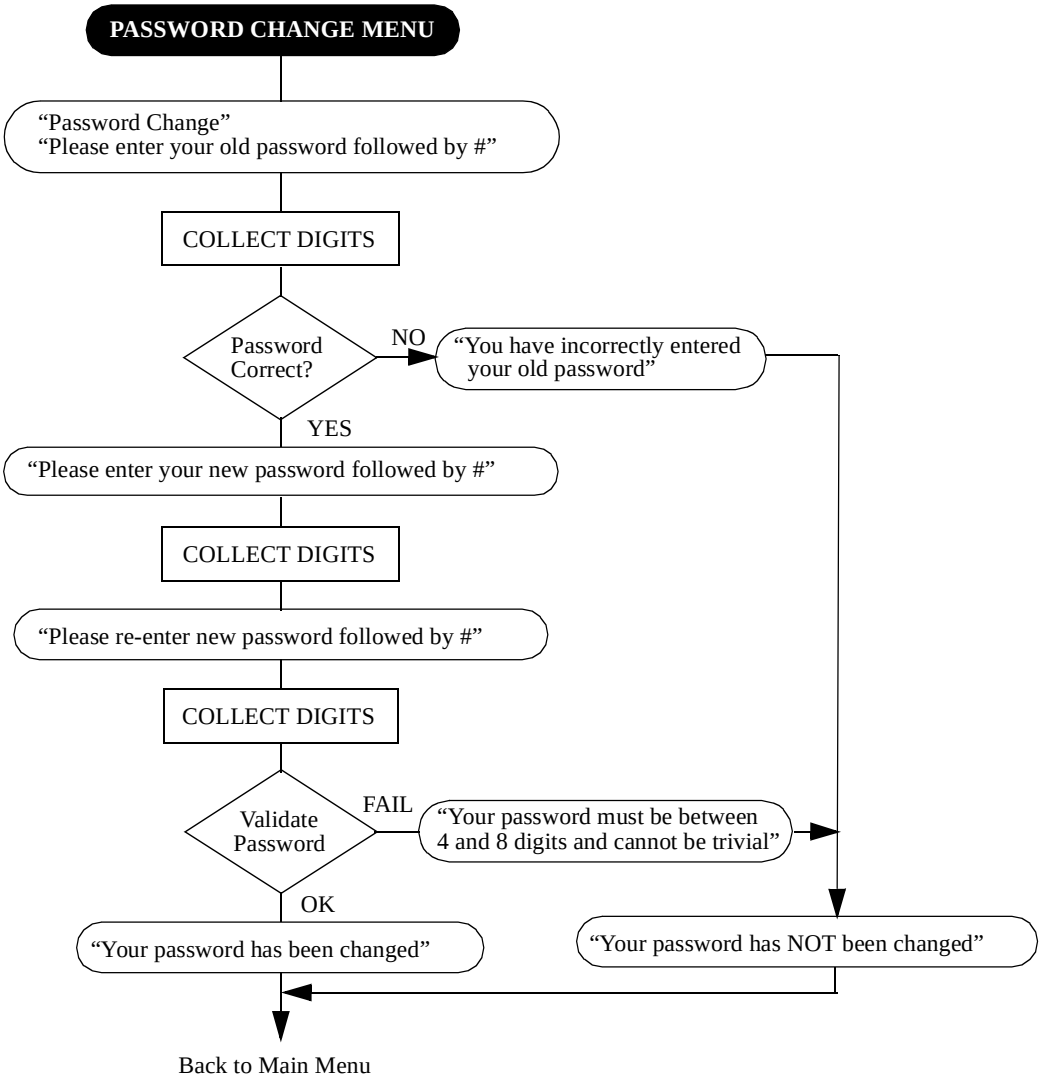


Figure 17: TUI Time of Day Greeting Menu

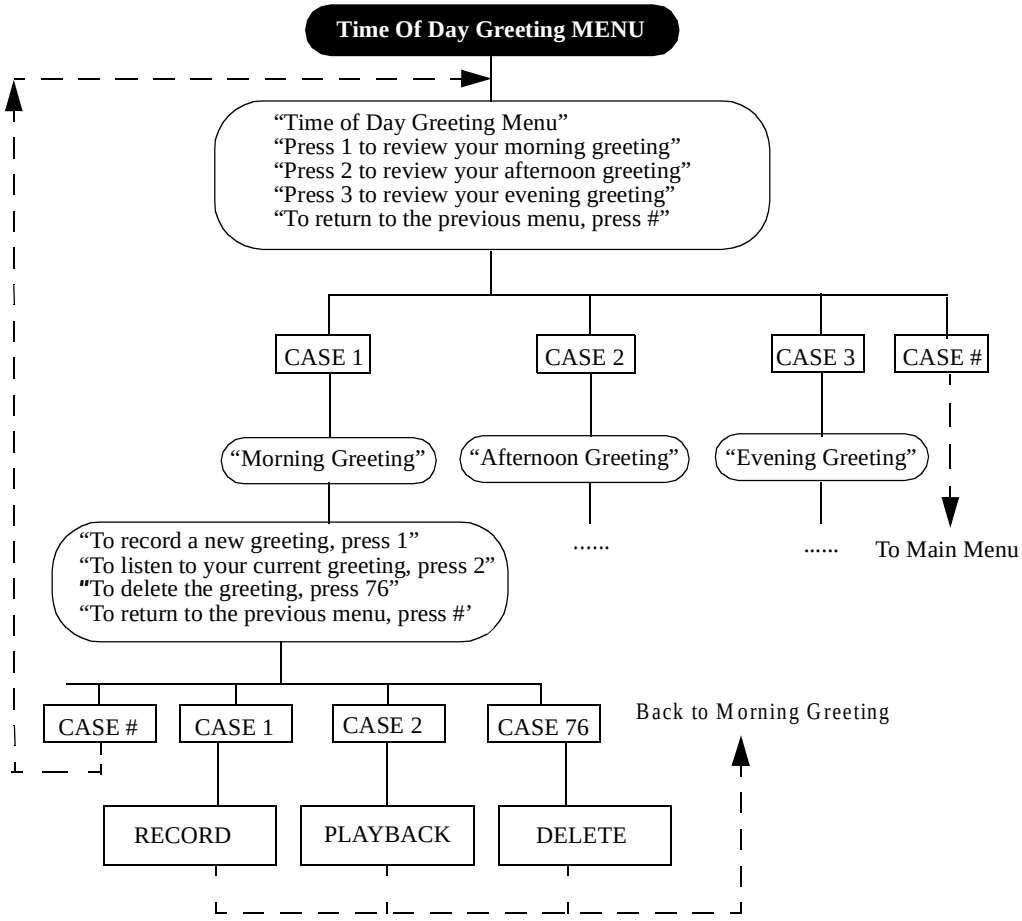
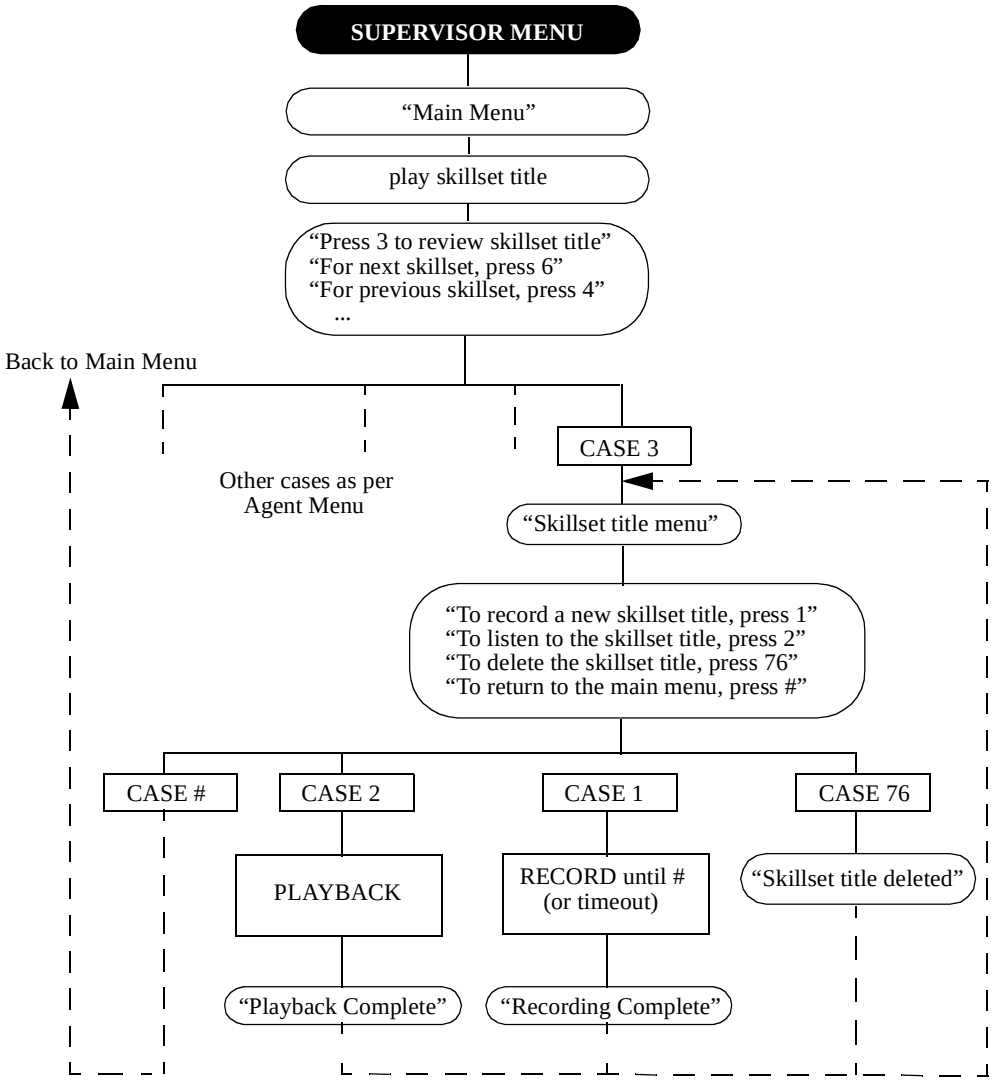


Figure 18: TUI Supervisor Menu



PC Card Flash Memory Backup and Restore

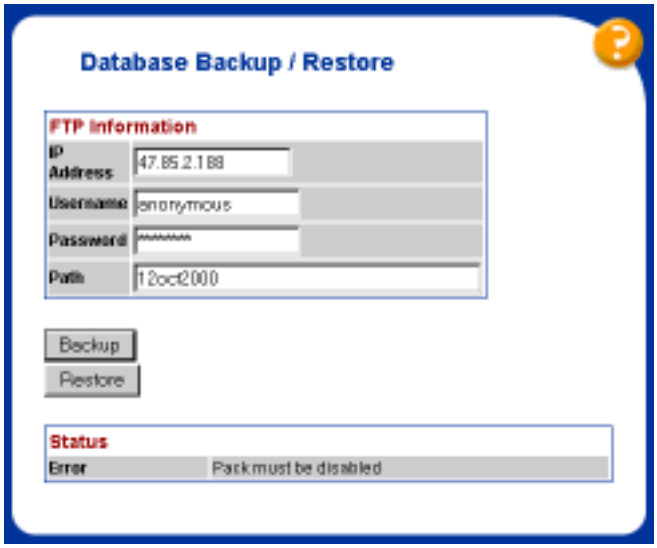
What is stored on the PC Card Flash Memory?

The PC Card Flash Memory contains all the database information concerning agents, supervisors and skillset assignments. It also contains various preference options (language, etc.) and the TUI prompt segments. Most importantly, it contains all the agent's own recorded greetings. Therefore, it is recommended that a regular backup regime be consistently followed.

Executing a backup or restore

Backup and Restore can be executed from the Administrator BUI using the Administration > Database > Backup / Restore tab.

Table 8: Database Backup / Restore Browser frame



The Backup / Restore Browser frame is shown in Table 8 on page 55. For a backup or restore operation, specify the IP address, username, and password of a suitable FTP server. The pathname to a specific directory on the server must also be supplied. A backup causes the contents of the PC Card Flash Memory to be stored on the FTP server as a "tar" file. A restore retrieves the tar file and replaces the contents of the PC Card memory. Note that the card must be disabled from LD 32 before a backup or restore is carried out.

Warning

A restore can take a long time for large numbers of agents with multiple skillset greetings per agent. A disk with greater than 40MBs of greetings plus agent information can take up to 2 hours to rebuild.

Restore in a Multi-card setup

In a Multi-card setup all cards contain all greetings and agent information on their respective hard disks. Therefore, in the event of a card or disk failure the simplest way to restore a card is to re-install it in the group. The server card will then update the card with the latest greetings and agent database. This mechanism will take a similar amount of time to that of a restore.

Should the server card go faulty it is recommended that a client card be made the server rather than restoring the server card. See "Changing a client card into a server" on page 46.

Precautions for handling circuit cards

Upgrade and maintenance information
Risk of equipment damage

Module covers are not hinged; when removing, do not let go of the covers. Lift covers away from the module and set them out of your work area.

WARNING
Risk of personal injury

Circuit cards can contain a lithium battery. There is a danger of explosion if the battery is replaced incorrectly. Do not replace components on any circuit card; you must replace the entire card.

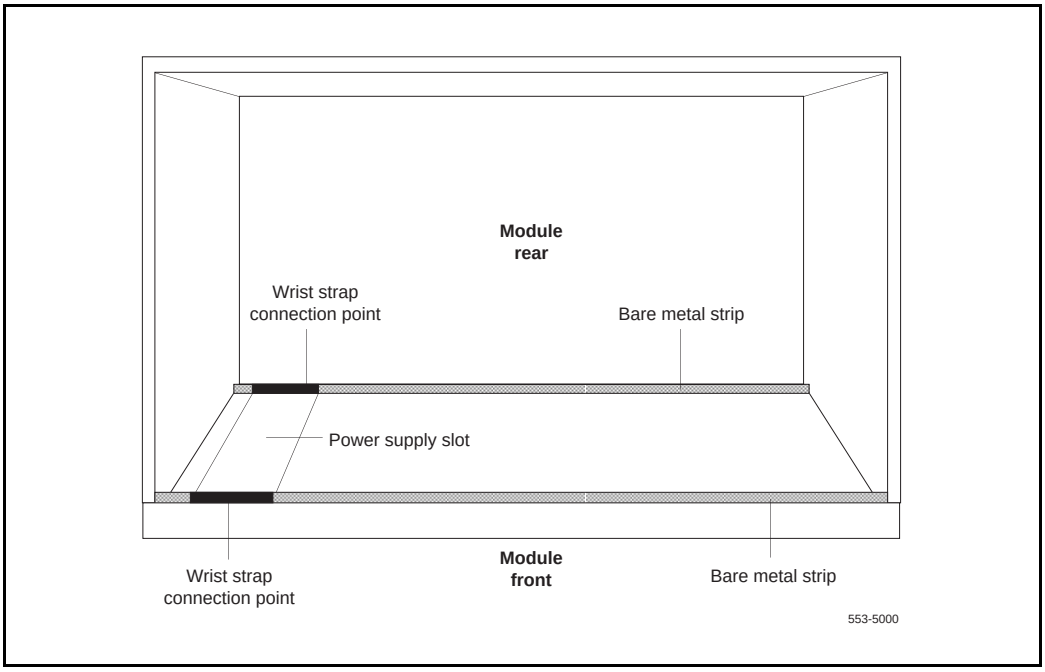
Dispose of circuit cards according to the manufacturer's instructions.

To avoid personal injury and equipment damage when handling circuit cards, follow the guidelines listed below:

- Wear a properly connected antistatic wrist strap when you work with switching equipment. If a wrist strap is not available, regularly touch one of the bare metal strips in a module to discharge static. Figure 19 on page 58 shows the recommended connection points for the wrist strap and the bare metal strips that you should touch.
- Unpack or handle cards away from electric motors, transformers, or similar machinery.
- Handle cards by the edges only. Do not touch the contacts or components.
- Set cards on a protective antistatic bag. If an antistatic bag is not available, hand-hold the card, or set it in a card cage unseated from the connectors.

- Store cards in their protective packing. Do not stack cards on top of each other unless they are packaged.
- Keep cards installed in the system as much as possible to avoid dirty contacts and unnecessary wear.
- Store cards in a cool, dry, dust-free area.

Figure 19: Static discharge points



Complete the following tasks during repair and maintenance procedures:

- Turn off the circuit breaker or switch for a module power supply before the power supply is removed or inserted.
- Software disable cards, if applicable, before they are removed or inserted.
- Hardware disable cards, whenever there is an enable/disable switch, before they are removed or inserted.

- Return defective or heavily contaminated cards to a repair center. Do not try to repair or clean them.

Meridian 1

Agent Greeting card

Installation Guide

Information is subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant. This equipment has been tested and found to comply with the limits for a Class B device pursuant to CENELEC Product Emission Standard EN 55 022:1994 (CISPR22) when installed as instructed in a Meridian 1 system. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, can cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

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