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CallPilot

Installation and Configuration

Part 3: Succession 1000 System and CallPilot Server Configuration

Product release 2.02 Standard 1.0 October 2003

NORTEL NETWORKS™

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CallPilot

Installation and Configuration
Part 3: Succession 1000 System and CallPilot Server Configuration

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Contents

1 CallPilot and Succession 1000 system connectivity overview 11

Overview 12
Symposium Voice Services Support 16

Section A: CallPilot network setup 19
CallPilot and Succession 1000 integration 20
Succession 1000 hardware components 25
CallPilot MGate card and Succession 1000 card slots 27
Succession 1000 logical slot numbering 28

Section B: Understanding call routing 31
Succession 1000 call routing components 32
Phantom DNs 35
CallPilot Service Directory Numbers and the SDN Table 37
How calls are routed 39
Multimedia channels in the CallPilot server 42
How multimedia channels are acquired by callers 44

2 Connecting the CallPilot server to the Succession 1000 system 47

Section A: Installing the MGate card 49
About the MGate card 50
Working with the Media Gateway or Media Gateway Expansion covers . 54
Installing the MGate card 58
Replacing an MGate card 64

Section B: Connecting the CallPilot server to the switch 67
About the DS30X cable 68
Connecting MPB16-4 boards to MGate cards 70
Connecting the MPB96 board to MGate cards 78

3 Configuring the Succession 1000 system 81

Succession 1000 hardware and software requirements 82
Succession 1000 configuration checklist 83
Provisioning the ELAN 88
Defining the Message Register for AML message tracing. 91
Configuring Succession 1000 IP addresses and enabling the Ethernet interface 93
Defining CallPilot in the customer data block 98
Configuring the ACD agent queue 104
Configuring ACD agents 106
Enabling the card slots 109
Defining the default ACD DN 110
Configuring CDN queues for messaging services 112
Configuring phantom DNs 114
Configuring dummy ACD DNs 119
Provisioning user phonesets 121
Configuring the route data block for Network Message Service 126
Saving Succession 1000 changes 128

4 Configuring the CallPilot server software 129

Overview. 130
Logging on to Windows NT on the CallPilot server 132
Logging on to the CallPilot server with CallPilot Manager 134
Running the Configuration Wizard. 140
Changing pcAnywhere caller passwords 142

5 Testing the CallPilot installation 145

Checking that CallPilot is ready to accept calls 146
Testing the connection to the ELAN 152
Testing the connection to the CLAN 153
Verifying that CallPilot can receive calls 154
Testing the CallPilot software and channels. 155

Index 169

Chapter 1

CallPilot and Succession 1000 system connectivity overview

In this chapter

Overview	12
Symposium Voice Services Support	16
Section A: CallPilot network setup	**19**
CallPilot and Succession 1000 integration	20
Succession 1000 hardware components	25
CallPilot MGate card and Succession 1000 card slots	27
Succession 1000 logical slot numbering	28
Section B: Understanding call routing	**31**
Succession 1000 call routing components	32
Phantom DNs	35
CallPilot Service Directory Numbers and the SDN Table	37
How calls are routed	39
Multimedia channels in the CallPilot server	42
How multimedia channels are acquired by callers	44

Overview

Introduction

This guide describes the Succession 1000 system setup and CallPilot server configuration steps of the CallPilot installation. This includes

- configuring the Succession 1000 system for correct operation with CallPilot
- connecting the CallPilot system to the Succession 1000 system and the CLAN
- configuring the CallPilot server

Before you begin

Before you proceed with configuring the Succession 1000 system and CallPilot server, review the “Installing CallPilot” section in Part 1 of the *CallPilot Installation and Configuration* binder, and complete stage 2 of the “Installation checklist.” This includes completing the worksheets provided in Part 1 of the *CallPilot Installation and Configuration* binder.

Note: If you need a high-level overview of CallPilot and Succession 1000 connectivity, then read the remainder of this chapter. Otherwise, the installation steps begin as follows:

- for tower or rackmount servers: at Chapter 2, “Connecting the CallPilot server to the Succession 1000 system,” on page 47
- for the 201i server: at Chapter 3, “Configuring the Succession 1000 system,” on page 81

Complete the steps in each chapter before you continue to the next chapter.

Glossary and related information products

Refer to Part 1 of the *CallPilot Installation and Configuration* binder for the glossary and the list of related information products.

Installation and configuration checklist

Step	Description	Check
Stage 1: Install the connectivity hardware.		
Note: For the 201i server, this stage is not applicable. Hardware connectivity is established when the 201i server is installed in the Succession 1000 system, as described in Part 2 of the *CallPilot Installation and Configuration* binder.		
1	If your server is a tower or rackmount server, install the MGate card in the Succession 1000 system. For instructions, see Chapter 2, “Connecting the CallPilot server to the Succession 1000 system,” on page 47.	❒
2	Connect the tower or rackmount server to the Succession 1000 system. For instructions, see Chapter 2, “Connecting the CallPilot server to the Succession 1000 system,” on page 47.	❒
Stage 2: Configure the Succession 1000 system and CallPilot server.		
3	Configure the Succession 1000 system. Use the “Switch configuration worksheet” that you completed in Part 1 of the *CallPilot Installation and Configuration* binder. For configuration instructions, see Chapter 3, “Configuring the Succession 1000 system,” on page 81.	❒

Step	Description	Check
4	Run the Configuration Wizard and configure the CallPilot server. Use the “Configuration Wizard worksheet” that you completed in Part 1 of the *CallPilot Installation and Configuration* binder. For configuration instructions, see Chapter 4, “Configuring the CallPilot server software,” on page 129.	❒
5	Change the pcAnywhere passwords. For instructions, see “Changing pcAnywhere caller passwords” on page 142.	❒
Stage 3: Test CallPilot connectivity. **Note:** For instructions, see Chapter 5, “Testing the CallPilot installation,” on page 145.		
6	Check CallPilot’s system ready indicators to see if CallPilot is ready to accept calls.	❒
7	Test the connection to the ELAN, if applicable.	❒
8	Test the connection to the CLAN.	❒
9	Verify that CallPilot answers when you dial the Voice Messaging DN.	❒
Stage 4: Test the CallPilot services and channels. **Note:** For instructions, see Chapter 5, “Testing the CallPilot installation,” on page 145.		
10	Check the system-ready indicators.	❒
11	Verify network connectivity to the CallPilot server over the ELAN and CLAN.	❒
12	Verify that CallPilot can receive calls.	❒

Step	Description	Check
13	Verify that you can leave a message.	❒
14	Verify that you can retrieve a message.	❒
15	Verify that each call channel and multimedia channel is functioning correctly.	❒
16	Check for CallPilot alarms using the Alarm Monitor in CallPilot Manager. Upon confirmation that CallPilot is operating correctly, clear all alarms.	❒
Stage 5: Install CallPilot Manager on a stand-alone web server (optional).		
17	Perform this step only if you want to set up a separate web server for CallPilot administration. This is necessary if the customer wants to use the Reporter application, or if high administration traffic is expected. For instructions, refer to Part 4 of the *CallPilot Installation and Configuration* binder.	❒

Symposium Voice Services Support

Introduction

This section is applicable only if you are enabling the Symposium Voice Services Support feature. This section provides an overview of the specific Succession 1000 configuration steps required for the Symposium Voice Services Support feature.

Configuring the Succession 1000 system to support CallPilot and Symposium Call Center Server

This guide provides the specific Succession 1000 system configuration instructions required to support CallPilot. Where there is an exception or additional step required for the Symposium Voice Services Support feature, this information is also provided. A list of these exceptions and additional steps is provided below:

1. In overlay 17 (see “Provisioning the ELAN” on page 88), the SECU prompt must be set to YES.
2. You must set up two additional ACD agent queues: one for ACCESS ports, and one for IVR ports. See “Configuring the ACD agent queue” on page 104.
3. In overlay 11, you must specify AST 0 1, where 0 is the number for key 0, and 1 is the number for key 1.

Configuring CallPilot for Symposium Voice Services Support

1. In the Configuration Wizard, you must specify the following information for the Symposium Voice Services Support feature:
   - On the Succession 1000 Information web page, you must specify the Symposium Call Center Server CLAN IP address.

- In the Channel Detail Information dialog box, you must select the check box for ACCESS or IVR for channels that are to be used for the Symposium Voice Services Support feature. These are the same channels that you must program on the Succession 1000 system in an ACCESS ACD queue or IVR ACD queue.

  Also specify the Class ID for the channel.

2. In the CallPilot Manager Service Directory Number page, do the following:

   - Use the ACCESS ACD-DN to create an SDN for the Symposium Voice Services Support feature.
   - Define treatment IDs used by Symposium Call Center Server as voice menus or announcements.

See also

Refer to the Symposium Call Center Server documentation for additional Succession 1000 system instructions related to Symposium Call Center Server configuration.

Section A: CallPilot network setup

In this section

CallPilot and Succession 1000 integration 20
Succession 1000 hardware components 25
CallPilot MGate card and Succession 1000 card slots 27
Succession 1000 logical slot numbering 28

CallPilot and Succession 1000 integration

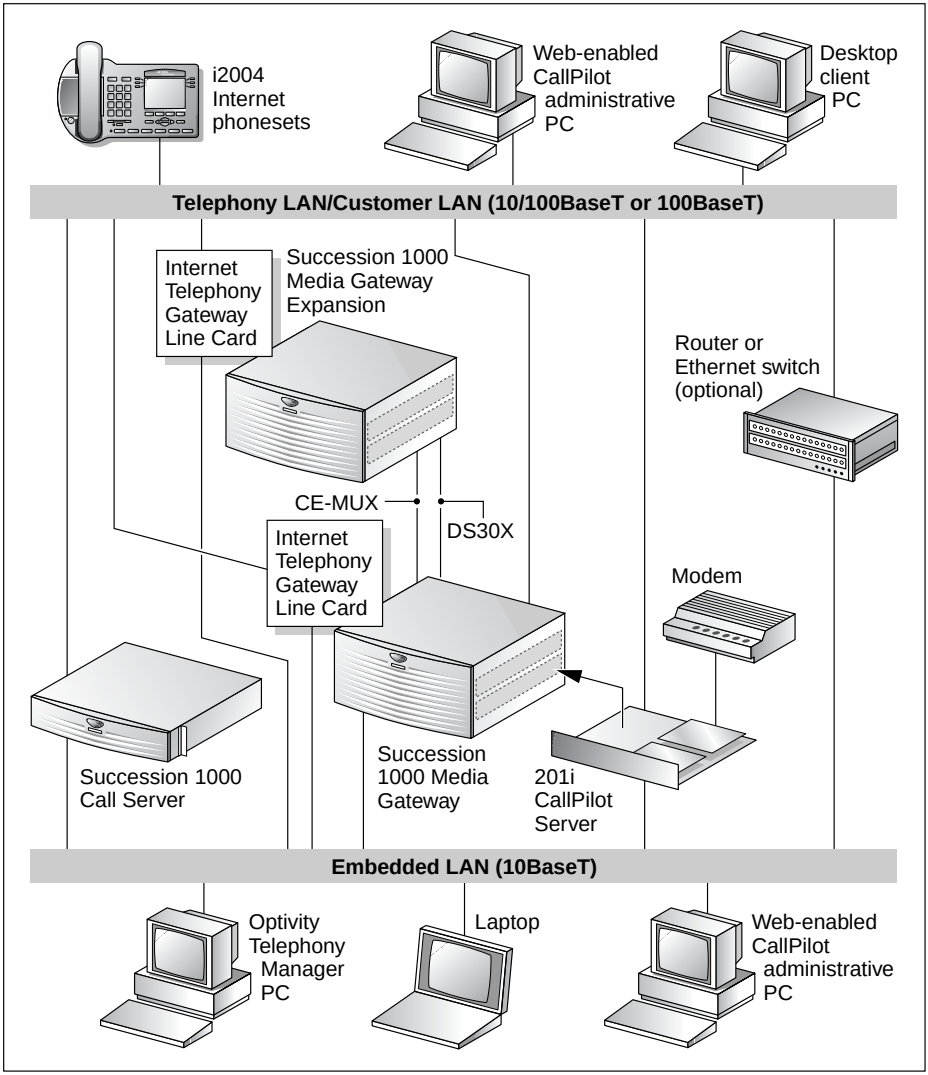
Introduction

This section describes how the CallPilot server is integrated into your network with the Succession 1000 system.

Sample network diagrams

201i server

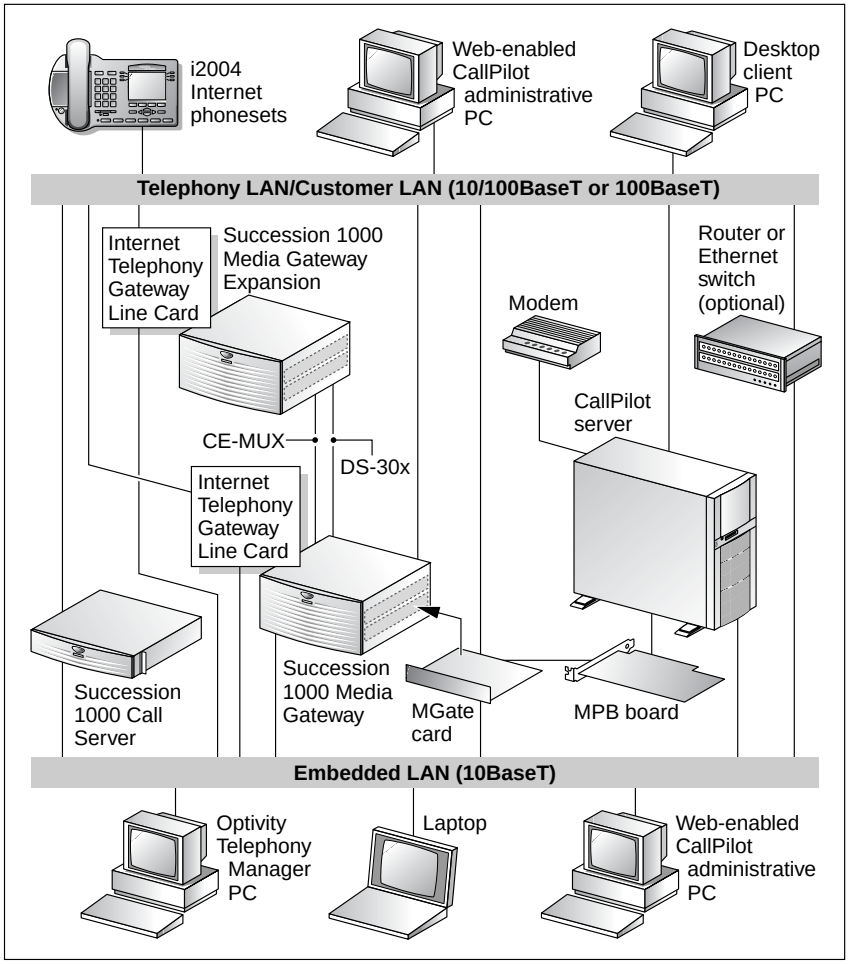
The following diagram shows an example of how the 201i server can be integrated with the Succession 1000 system in your network:


i2004
Internet
phonesets
Web-enabled
CallPilot
administrative
PC
Desktop
client
PC
Telephony LAN/Customer LAN (10/100BaseT or 100BaseT)
Internet
Telephony
Gateway
Line Card
Succession 1000
Media Gateway
Expansion
Router or
Ethernet switch
(optional)
CE-MUX
DS30X
Internet
Telephony
Gateway
Line Card
Modem
Succession 1000
Call Server
Succession
1000 Media
Gateway
201i
CallPilot
Server
Embedded LAN (10BaseT)
Optivity
Telephony
Manager
PC
Laptop
Web-enabled
CallPilot
administrative
PC

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Tower or rackmount servers

The following diagram shows an example of how a tower or rackmount server can be integrated with the Succession 1000 system in your network:



Note: The above diagram shows a tower server. However, the same configuration applies to a rackmount server.

Succession 1000 network setup

In the previous illustrations, the telephony LAN (TLAN) provides IP connectivity between the Succession 1000 system and the i2004 Internet phonesets. The connection between the Call Server and Media Gateway can be point-to-point, or it can be through the LAN, if the system is installed in a distributed data network.

For information about the Succession 1000 system and i2004 Internet phoneset bandwidth and network requirements, refer to the *Succession 1000 Planning and Installation Guide* (NTP 553-3023-210).

For a description of each Succession 1000 system component, see "Succession 1000 hardware components" on page 25.

CallPilot components

CallPilot server

The CallPilot server connects to the Succession 1000 system and, where desktop messaging is enabled, to the customer LAN (CLAN). If your server is a 201i server, it resides inside the Succession 1000 system.

MGate card (for tower and rackmount servers only)

The MGate card is a line card that is installed inside the Succession 1000 system. The MGate card sends the voice and data signals to the MPB boards in the CallPilot server.

MPB boards (for tower and rackmount servers only)

The CallPilot server is equipped with one of the following types of MPB boards:

- MPB16-4 boards

  DSPs are provided on the MPB16-4 board in the form of two integrated MPCs and up to four optional MPC-8 cards. (For more information about MPC-8 cards, see "MPC-8 cards" on page 24.)

- MPB96 boards

DSPs are provided on the MPB96 board in the form of 12 integrated MPCs. MPC-8 cards are not required on the MPB96 board.

Each tower or rackmount CallPilot server ships with at least one MPB16-4 or MPB96 board.

MPC-8 cards

The MPC-8 cards reside in slots in the 201i server, or in the MPB16-4 board for tower or rackmount servers. These cards process the voice and data signals that arrive from the Succession 1000 system.

See also “Multimedia channels in the CallPilot server” on page 42.

Modem

The server connects to a modem to allow remote access by a support PC for installation, maintenance, and diagnostics.

Desktop client PCs

You can install desktop client messaging software on client PCs to enable mailbox users to receive phone, fax, and voice mail on their PCs. For more information, refer to the *Desktop Messaging and My CallPilot Installation Guide* (NTP 555-7101-505).

Any PC that has network access to the CallPilot server and has a web browser installed can be used to administer CallPilot. The CallPilot administration software is web-based.

Succession 1000 hardware components

Introduction

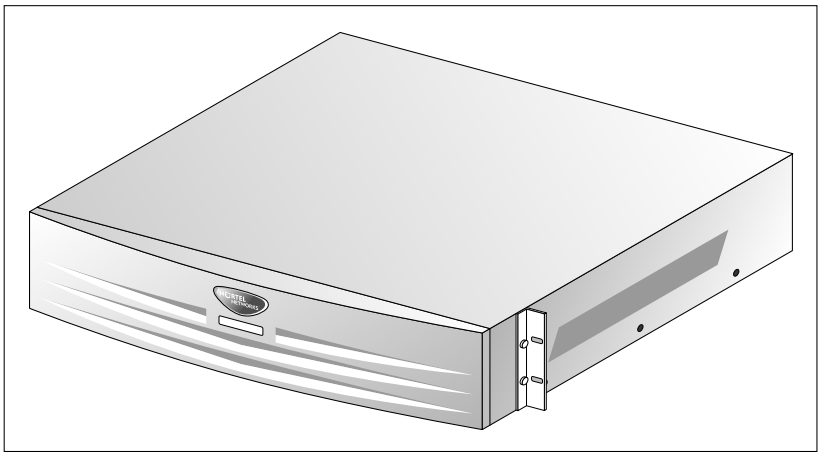
The Succession 1000 system consists of the following major components:

- Call Server
- Media Gateway
- Media Gateway Expansion

Call Server

The Call Server provides telephony services and call processing. It supports up to four Media Gateways and four Media Gateway Expansions when the Small System Controller (SSC) card inside the unit is fully populated with two dual-port 100BaseT daughterboards.

The following diagram shows the Call Server:



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Media Gateway and Media Gateway Expansion

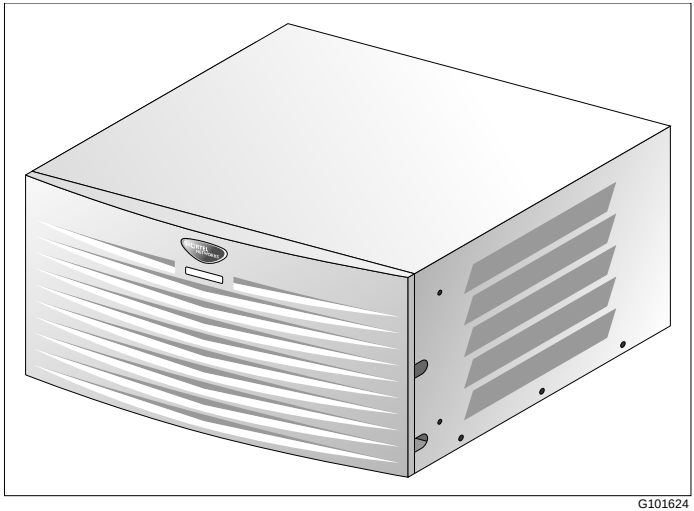
The Media Gateway and Media Gateway Expansion provide the interface for analog or digital trunks, i2004 Internet phonesets, analog phonesets, and applications such as CallPilot.

The Media Gateway provides three slots, and the Media Gateway Expansion provides four slots. These slots support cards such as analog line cards, trunk cards, and application cards. The CallPilot 201i server is an application card that occupies two consecutive slots. The MGate card is a line card that occupies only one slot.

Note: For a list of the cards that are supported by the Succession 1000 system, refer to the *Succession 1000 Planning and Installation Guide* (NTP 553-3023-210).

You can connect Media Gateway Expansion to the Media Gateway to increase system capacity.

The following diagram shows the Media Gateway:



Except for the back panel connectors, the Media Gateway Expansion is similar in external appearance to the Media Gateway.

CallPilot MGate card and Succession 1000 card slots

Introduction

The MGate card (applicable to tower or rackmount servers only) occupies one slot in the Succession 1000 system. This section identifies the slots in which you can install the MGate card and their relationship to logical slot numbers.

Note: For information about the Succession 1000 card slots in relation to the 201i server, refer to Part 2 of the *CallPilot Installation and Configuration* binder.

Eligible and ineligible slots

The following table identifies the Media Gateway and Media Gateway Expansion slots into which you can install the CallPilot MGate card:

Unit	MGate card can be installed in	Ineligible slots
Media Gateway	Slots 1, 2, or 3	Slot 0 is dedicated to the SSC card. Slot 4 (includes slots 5 and 6) is not used.
Media Gateway Expansion	Slots 7, 8, or 9	Slot 10 is a double-wide slot. The second half of this slot does not have a backplane connector.

For more information about cards and slots, refer to the *Succession 1000 Planning and Installation Guide* (NTP 553-3023-210).

Succession 1000 logical slot numbering

Introduction

When you configure the Succession 1000 system, use the logical slot numbers identified in this section for each Media Gateway and Media Gateway Expansion.

Units 1 and 2

Media Gateway and Media Gateway Expansion 1		**Media Gateway and Media Gateway Expansion 2**	
Physical slot	**Logical slot**	**Physical slot**	**Logical slot**
Media Gateway		Media Gateway	
1	11	1	21
2	12	2	22
3	13	3	23
4	Not supported	4	Not supported
5	Not supported	5	Not supported
6	Not supported	6	Not supported
Media Gateway Expansion		Media Gateway Expansion	
7	17	7	27
8	18	8	28
9	19	9	29
10	20	10	30

Units 3 and 4

Media Gateway and Media Gateway Expansion 3		Media Gateway and Media Gateway Expansion 4	
Physical slot	**Logical slot**	**Physical slot**	**Logical slot**
Media Gateway		Media Gateway	
1	31	1	41
2	32	2	42
3	33	3	43
4	Not supported	4	Not supported
5	Not supported	5	Not supported
6	Not supported	6	Not supported
Media Gateway Expansion		Media Gateway Expansion	
7	37	7	47
8	38	8	48
9	39	9	49
10	40	10	50

Section B: Understanding call routing

In this section

Succession 1000 call routing components 32
Phantom DNs 35
CallPilot Service Directory Numbers and the SDN Table 37
How calls are routed 39
Multimedia channels in the CallPilot server 42
How multimedia channels are acquired by callers 44

Succession 1000 call routing components

Introduction

The Succession 1000 system uses the following components to route calls:

- Automatic Call Distribution (ACD)
- Control Directory Number (CDN)

Automatic Call Distribution

Automatic Call Distribution (ACD) is a feature on the Succession 1000 system that allows a number of programmed phonesets, known as ACD agents, to share equally in answering incoming calls. In the case of CallPilot, the call-queuing capability of ACD is not used, but the call-handling capability of ACD agents is used.

How CallPilot uses ACD virtual agents

All ACD agents that service CallPilot are put into a single ACD agent queue (unless you are enabling the Symposium Voice Services Support feature; see “How multimedia channels are acquired by callers” on page 44). These agents correspond to DS0 channels on the CallPilot server. Agents are programmed in overlay 11 as 2008 Digital (Aries) sets with Multimedia Messaging Allowed (MMA) class of service. These are not, however, physical phonesets. These are Terminal numbers (TNs) that are programmed to look like real digital sets to the Succession 1000 system.

Control Directory Number

For CallPilot, you configure one Control Directory Number (CDN) on the Succession 1000 system for each of the following services:

- a primary CDN for Voice Messaging
- a secondary CDN for Multimedia Messaging

A CDN queue is like an ACD queue. The key difference is that calls in the CDN queue are managed by CallPilot, while calls in an ACD queue are managed by the Succession 1000 system.

Calls are routed to the CDN queue directly or by terminating on a phantom DN or dummy ACD queue, which is forwarded to the CDN.

How CallPilot uses CDNs

A CDN can operate in one of two modes:

- control mode
- default mode

Normally, a CDN operates in control mode. In control mode, call treatment and call routing are under the control of the CallPilot server. The Succession 1000 system simply provides routing to CallPilot. The server specifies the type of treatment to be given to waiting calls. The server processes the calls on a first-come, first-served basis and determines to which DS0 channel the call is routed. DS0 channels are configured as agents of an ACD queue.

A CDN can also operate in default mode (that is, CallPilot is offline or the AML is down). In default mode, the Succession 1000 system takes over call-routing control. Incoming calls receive default treatment provided by the default ACD DN associated with the CDN.

Call queuing

Incoming calls to the CDN are queued in the order of arrival. If calls cannot be processed immediately and must wait in the queue until resources are available, the first caller in the queue is handled first.

Call routing

The CallPilot server determines which DS0 channel can provide the dialed service requested by a waiting call, and instructs the Succession 1000 system to route the call to the associated ACD agent.

See also

- “Phantom DNs” on page 35
- “CallPilot Service Directory Numbers and the SDN Table” on page 37

Phantom DNs

Introduction

Instead of using phonesets or dummy ACD DNs to route calls, CallPilot can use “virtual telephones” that exist only in software and have no associated hardware. The DN associated with one of these phantom phones is called a phantom DN.

Creating a Phantom DN

To create a phantom DN, you first create a phantom loop, and then define a TN within that loop. The system knows that any TN defined within that loop is a phantom TN. Each phantom TN is assigned a DN (the phantom DN). When the DN is entered in the CallPilot Service Directory Number page, it becomes the dialable number of a CallPilot service.

Phantom DNs forward to a CDN queue

Incoming calls cannot queue up in the phantom TN as they arrive. When a call arrives at a phantom DN, the system forwards it to a CDN queue before it is routed to a multimedia channel for further call handling. However, the system remembers the phantom DN to keep track of the requested service.

Services that should use phantom DNs

Nortel Networks strongly recommends that you use either phantom DNs or dummy ACD DNs (see “Configuring dummy ACD DNs” on page 119) for the following services:

- all services created with Application Builder that are directly dialable by callers
- Speech Activated Messaging
- Paced Speech Messaging

- Voice Item Maintenance
- Fax Item Maintenance
- Express Voice Messaging
- Express Fax Messaging

Networking services

The following Networking services can either have a unique phantom DN configured on the Succession 1000 system, or they can share the phantom DN (and SDN) of another service:

- Enterprise Networking
- AMIS Networking
- Integrated AMIS Networking

Share DNs when your supply of available DNs on the Succession 1000 system is low. Create a unique DN when you need to closely monitor each service (for example, so that each service generates its own traffic data in Reporter).

Note: After you configure the SDN in CallPilot, specify with which service you are sharing the SDN.

Example

You are ready to put a new menu application into service. Phantom DN 6120 is available on the Succession 1000 system. In the Service Directory Number page, you enter 6120 as the SDN for this service. This is the number that callers dial to access the menu.

CallPilot Service Directory Numbers and the SDN Table

Introduction

When a call arrives at a CDN queue either directly or indirectly from a phantom DN or dummy ACD DN, the Succession 1000 system gives the caller ringback treatment. While this happens, the dialed DN is looked up in the SDN Table in CallPilot to determine what service is required.

What is the SDN Table?

The SDN Table is where the CDNs, phantom DNs, or dummy ACD DNs that have been configured on the Succession 1000 system for your CallPilot services are recorded. In this table, the DN (now called an SDN) is associated with a specific service. You use the CallPilot Manager Service Directory Number page to administer the SDN Table.

What the SDN Table controls

In addition to specifying which service should be activated when a number is dialed, the SDN Table also controls

- the type of channel the service acquires (voice, fax, or speech recognition)
- the number of channels allocated to the service

  The SDN configuration determines the minimum number of channels guaranteed to a service for simultaneous use and the maximum number of channels that you can use at one time.
- the session behavior for certain services, such as those created with Application Builder (including the maximum session length and a number of fax options)

Types of SDNs

There are two types of SDNs—inbound SDNs and outbound SDNs.

Inbound SDNs require DNs on the Succession 1000 system

Services that callers dial need inbound SDNs. An inbound SDN corresponds to either a CDN, a phantom DN, or a dummy ACD DN on the Succession 1000 system, since callers must be able to dial in to the Succession 1000 system with a unique number.

Outbound SDNs do not need DNs on the Succession 1000 system

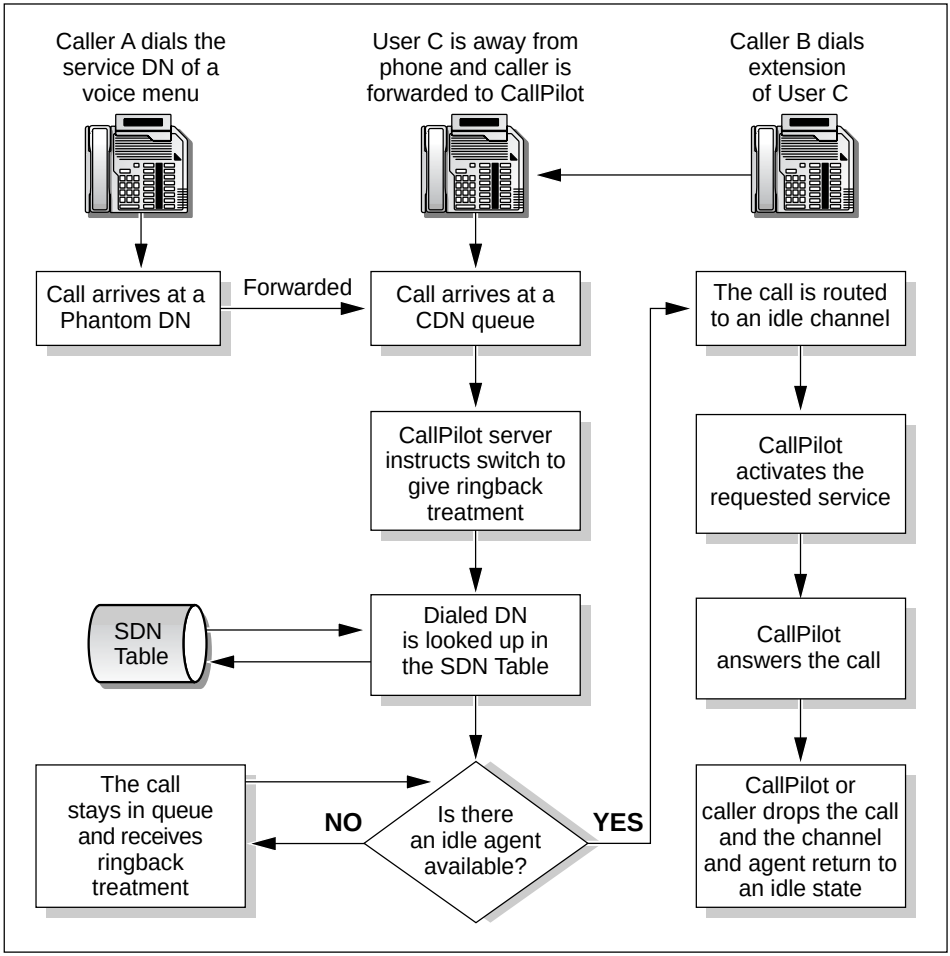
Callers do not dial outbound SDNs. The system uses outbound SDNs to place outbound calls. Since outbound SDNs do not accept incoming calls, a corresponding CDN, phantom DN, or dummy ACD DN is not necessary on the Succession 1000 system.

The following services use outbound SDNs:

- outcalling services (Remote Notification, Delivery to Telephone, Delivery to Fax)
- networking services (AMIS Networking and Enterprise Networking)

How calls are routed

Call flow example



Note: The example above uses a phantom DN. The same call flow occurs when a caller dials a dummy ACD DN.

Example of phantom DN or dummy ACD DN usage

ATTENTION

The example below uses phantom DNs. The same call flow occurs when a caller dials a dummy ACD DN.

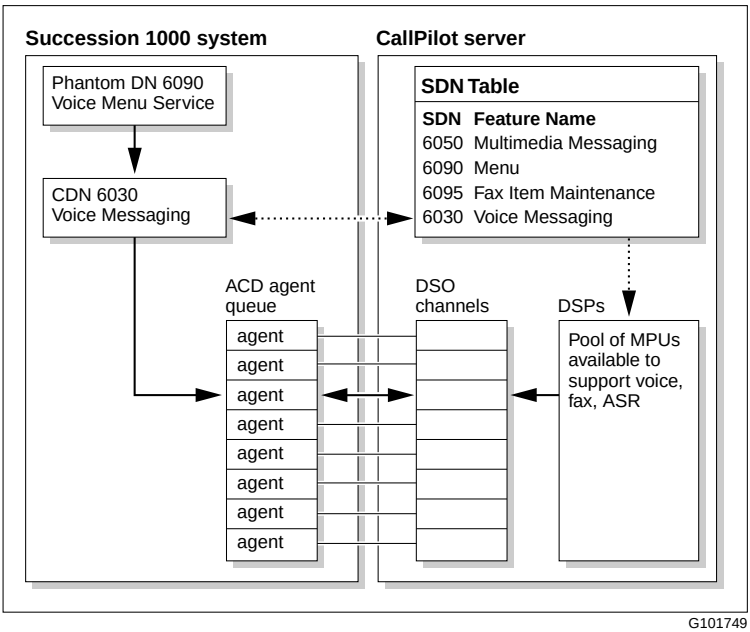
Two CDN queues have been configured:

- Voice Messaging (6030)
- Multimedia Messaging (6050)

Two phantom DNs have been configured (the same scenario applies if these are set up as dummy ACD DNs):

- 6090 is the DN for a menu service (without fax items)
- 6095 is the DN for Fax Item Maintenance

In this example, when the calls come in to the Succession 1000 system, there are no available channels, and the calls are queued as a result:



What happens when users dial the service DNs

1. A caller dials 6090 to access a menu service. This phantom DN forwards to CDN 6030 because the menu contains no fax or speech recognition capability.
2. Another caller dials 6095 to access the Fax Item Maintenance service. The call is forwarded to CDN 6050.
3. CallPilot looks up the DNs in the SDN Table on the server to check which service is being requested, the media type required, and the channel allocations for each service.
4. Call 1, to the menu service that contains only voice functions (no fax items), is routed to an ACD agent that is available to handle voice.
5. Call 2, to the Fax Item Maintenance service, is routed to an ACD agent that is available to handle fax.

Multimedia channels in the CallPilot server

Multimedia Processing Units

In addition to the CPU processing power required by CallPilot, calls that are received by CallPilot need DSP processing power to support the voice, fax, and speech recognition features. DSP processing power is provided by Multimedia Processing Units (MPUs) in the CallPilot server. MPUs are provided by the following CallPilot hardware:

- MPB boards (MPB16-4 or MPB96)
- MPC-8 cards (if MPB16-4 boards are used)

Types of multimedia channels

Certain types of media need more channel resources to process them. As a result, three types of multimedia channels handle the various types of CallPilot services.

Each type of channel terminates on a different number of MPUs, based on how much processing power is required. For example, integrated fax and voice data takes twice as much processing power as voice-only media. A fax channel, therefore, terminates on two MPUs.

Channel type	# of MPUs	Description
Voice	1	One voice channel requires one MPU.
Fax	2	Fax needs twice as much processing power as voice-only media, and, therefore, requires two MPUs for one fax channel.

Channel type	# of MPUs	Description
ASR (automated speech recognition)	4	Speech recognition needs four times as much processing power as voice-only media, and, therefore, requires four MPUs for one speech recognition channel.

How multimedia channels are acquired by callers

Introduction

The system uses the information gathered from the SDN configuration to check the ACD agent queue to determine if an idle multimedia channel of the type required by the service is available.

IF	THEN
an idle channel (of the needed media type) is available	the system passes the call to CallPilot.
idle channels that meet the requirements defined in the SDN Table are not available	the call remains in the CDN queue and the system applies a delay treatment. The server specifies a default delay treatment of ringback. This means that while a call waits in a queue, the caller hears the phone ringing.

What happens when the call is answered

When a multimedia channel of the appropriate type becomes idle, the call arrives at the multimedia channel and is passed to CallPilot.

Since the SDN Table has already been checked, the requested service is known and is activated. The service also answers the call.

Based on which service is activated, one of the following results happens:

- The appropriate prompt is played.
- CallPilot receives a fax.
- CallPilot records a message.

What happens when the call is dropped

When CallPilot or the caller drops the call (hangs up), the multimedia channel returns to an idle state, ready to be acquired by another call.

What's next?

IF your server is a	THEN
tower or rackmount server	continue with Chapter 2, "Connecting the CallPilot server to the Succession 1000 system," on page 47.
201i server	continue with Chapter 3, "Configuring the Succession 1000 system," on page 81.

Chapter 2

Connecting the CallPilot server to the Succession 1000 system

In this chapter

Section A: Installing the MGate card **49**

About the MGate card 50

Working with the Media Gateway or Media Gateway Expansion covers 54

Installing the MGate card 58

Replacing an MGate card 64

Section B: Connecting the CallPilot server to the switch **67**

About the DS30X cable 68

Connecting MPB16-4 boards to MGate cards 70

Connecting the MPB96 board to MGate cards 78

Section A: Installing the MGate card

In this section

About the MGate card 50
Working with the Media Gateway or Media Gateway Expansion covers 54
Installing the MGate card 58
Replacing an MGate card 64

About the MGate card

Introduction

The MGate card (NTRB18CA) is the line interface card in the Succession 1000 system that supports the call channels for CallPilot. A DS30X cable connects the MGate card to the CallPilot server.

Note: The MGate card is hot-swappable. Therefore, you do not need to power down the Succession 1000 system before installing or removing an MGate card.

ATTENTION

An MGate card is not used with the 201i server. For the 201i server, the connection to the Succession 1000 system is established in Part 2 of the *CallPilot Installation and Configuration* binder when the server is installed in the Media Gateway or Media Gateway Expansion.

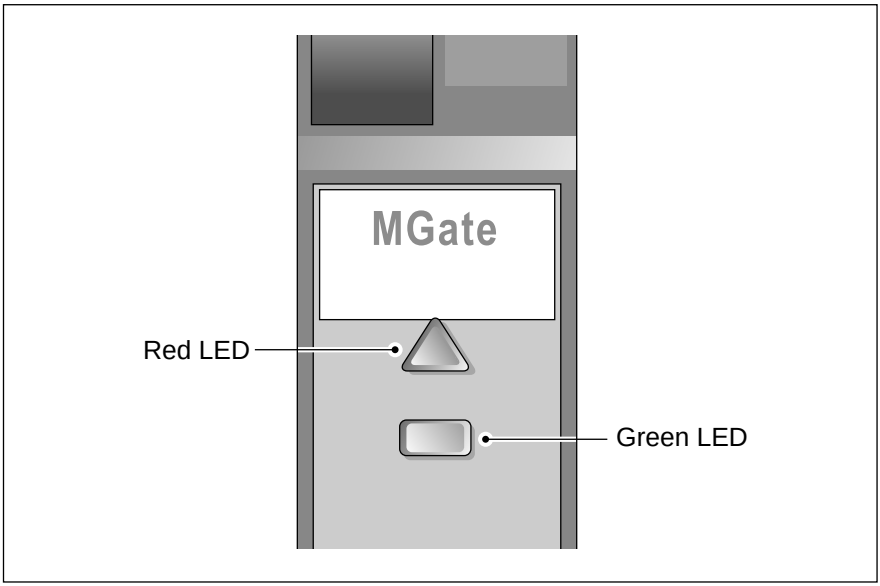
Number of channels supported

Each MGate card supports 32 channels. These 32 channels can be any combination of voice, fax, and automated speech recognition channels. For example, you can have 16 voice, 8 fax, and 8 automated speech recognition channels supported by a single MGate card.

On the CallPilot server side, you require additional DSP MPUs to support fax or automated speech recognition channels, but this does not affect the number of channels supported by the MGate card.

LED indicators

The MGate card has red and green LED indicators on the faceplate.



The combined state of the red and green LEDs provides important indicators of the MGate card's status.

Red LED	Green LED	Description
OFF	ON	The MGate card is enabled in the Succession 1000 system software, and the MGate card is operational.
OFF	OFF	The MGate card is not receiving power, or the MGate card is faulty.
ON	ON	The MGate card is disabled in the Succession 1000 system software, but the MGate card is operational.

Red LED	Green LED	Description
ON	OFF	The MGate card is disabled in the Succession 1000 system software, and the MGate card is faulty.
Blinking	Blinking	The MGate card is executing self-test diagnostics.

Impact of a faulty MGate card

The Succession 1000 system may or may not recognize when an MGate card is faulty. If the Succession 1000 system does recognize the problem, then it automatically disables the MGate card and informs CallPilot that the MGate card is faulty.

If the Succession 1000 system does not recognize that the MGate card is faulty, it does not automatically disable it. In this situation, you must use overlay 32 to manually disable the MGate card slot.

The DS0 channels associated with the disabled MGate card are taken out of service by CallPilot and assigned a Remote Off Duty status. If there are multiple MGate cards, then CallPilot continues to use the DS0 channels associated with the functioning MGate cards.

Required components

Component	Part number	Description
MGate card	NTRB18CA	Installed in the Media Gateway or Media Gateway Expansion.
DS30X cable (MPB16-4) ■ Single cable ■ Dual cable	 NTRH2012 NTRH2013	Connects the MPB16-4 boards in the CallPilot server to the MGate cards in the Media Gateway or Media Gateway Expansion.

Component	Part number	Description
DS30X cable (MPB96)	NTRH2014	Connects the MPB96 boards in the CallPilot server to the MGate cards in the Media Gateway or Media Gateway Expansion.



CAUTION

Risk of data loss

The MGate card is shipped from the factory with the appropriate DS30X cables. Do not substitute other versions of these boards and cables in the configurations specified in this documentation, as this can result in data loss.

Working with the Media Gateway or Media Gateway Expansion covers

Introduction

This section describes how to remove the covers from the Media Gateway or the Media Gateway Expansion. When you are finished with MGate card installation, replace the covers.

To remove the front bezel and inside front cover plate



WARNING

Risk of eye injury

Nortel Networks recommends that you operate the Media Gateway and Media Gateway Expansion with their front bezels installed. When the blue LEDs inside these units are lit, they are very bright. Avoid staring at them.

1 Remove the front bezel from the Media Gateway or Media Gateway Expansion as follows:

a. Use a slot screwdriver to gently pry off the SUCCESSION label.

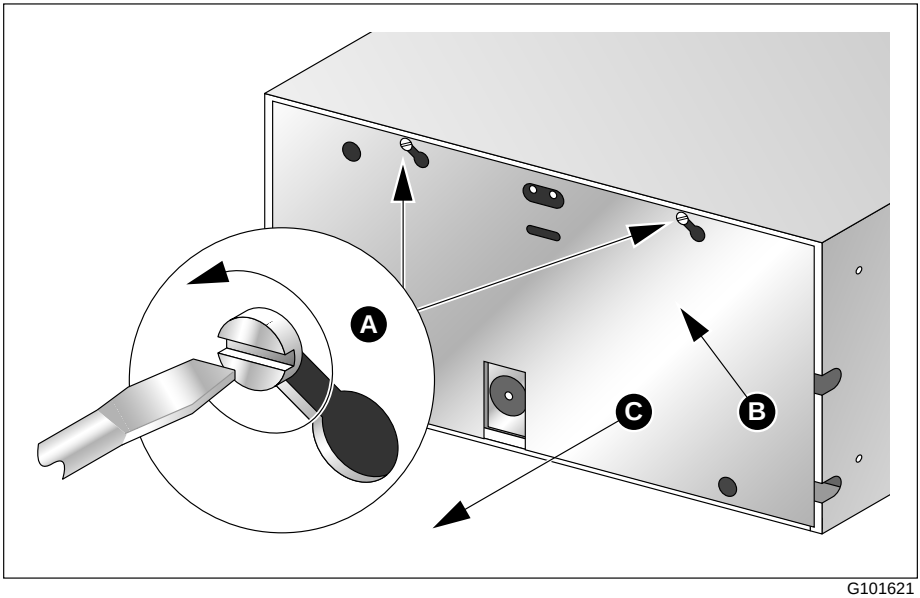
b. Insert the screwdriver approximately 2 cm (.75 in.) into the open slot, and then gently lift the screwdriver handle, thus applying downward pressure on the tab inside the bezel.

At the same time, gently pull the bezel away from the chassis (approximately 2 cm [.75 in.]) until the inside tab has cleared the catch.

c. Grasp the bezel by both sides and carefully pull it straight away from the Media Gateway or Media Gateway Expansion.

See the diagram that follows.

2 Remove the inside front cover plate as follows:



G101621

a. Use a screwdriver to loosen each screw on the top of the inside front cover plate by three turns.

ATTENTION

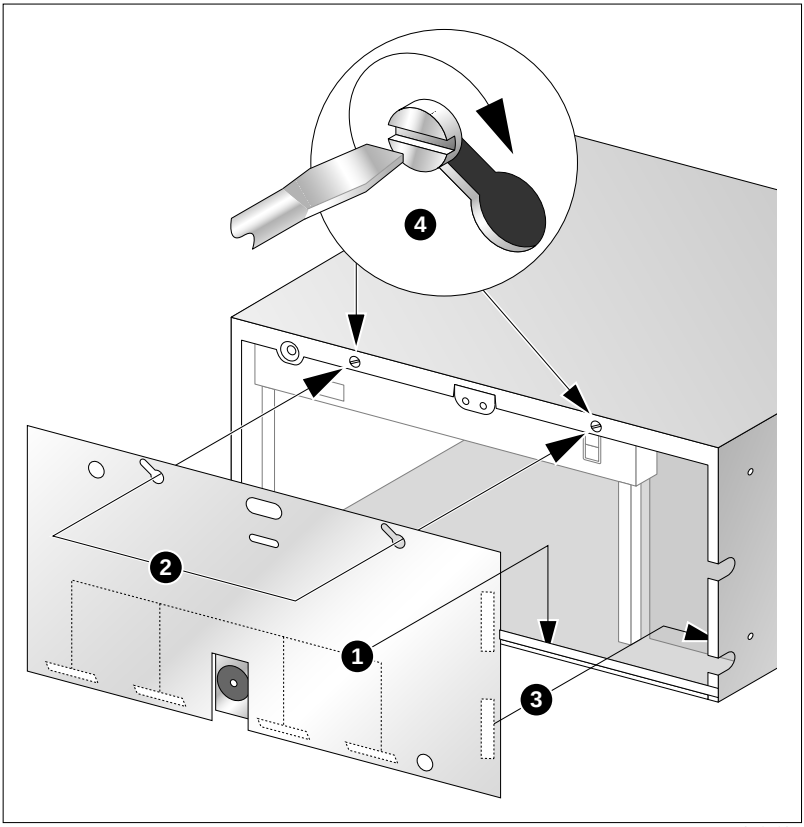
Do not remove the screws.

b. Apply pressure and slide the inside front cover plate upward *to the left* until the screw holes are aligned with the screw heads.

c. Pull the inside front cover plate away from the Media Gateway or Media Gateway Expansion.

To replace the inside front cover plate

The following diagram provides an overview of how to install the inside front cover plate:



1 Insert the bottom tabs of the front cover plate inside the bottom rail.

2 Align the screw holes on the front cover plate over the screw heads on the Media Gateway or Media Gateway Expansion.

3 Slide the front cover plate downward to the right, ensuring that the side tabs slide behind the side rail.

4 Tighten the screws to secure the front cover plate.

5 Continue with “To replace the front bezel” on page 57.

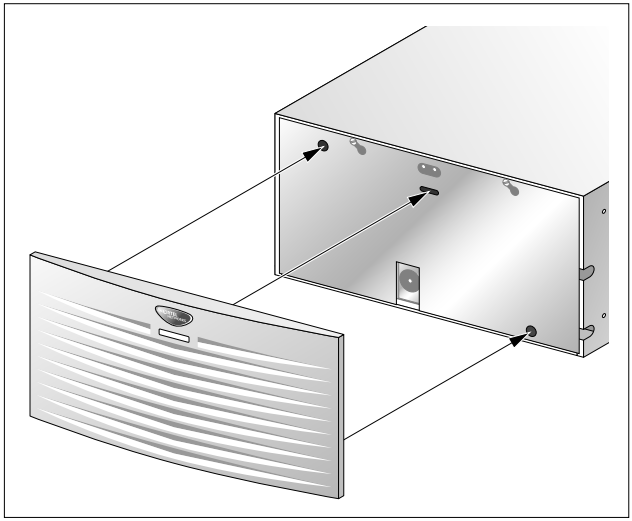
To replace the front bezel

WARNING

Risk of eye injury

Nortel Networks recommends that you operate the Media Gateway and Media Gateway Expansion with their front bezels installed. When the blue LEDs inside these units are lit, they are very bright. Avoid staring at them.

1 Align the two posts and the locking tab on the rear of the front bezel with the slots on the inside front cover plate.



2 Push the bezel toward the Media Gateway or Media Gateway Expansion until it snaps into place.

3 Replace the SUCCESSION label.

Installing the MGate card

Introduction

This section describes how to

- set the MGate card's DIP switches
- install the MGate card in the Media Gateway or Media Gateway Expansion
- replace the MGate card

Before you begin

Determine which slot you will use to house the MGate card. The following table identifies the Media Gateway and Media Gateway Expansion slots into which you can install the CallPilot MGate card:

Unit	MGate card can be installed in	Ineligible slots
Media Gateway	Slots 1, 2, or 3	Slot 0 is dedicated to the SSC card. Slot 4 (includes slots 5 and 6) is not used.
Media Gateway Expansion	Slots 7, 8, 9, or 10	Not applicable

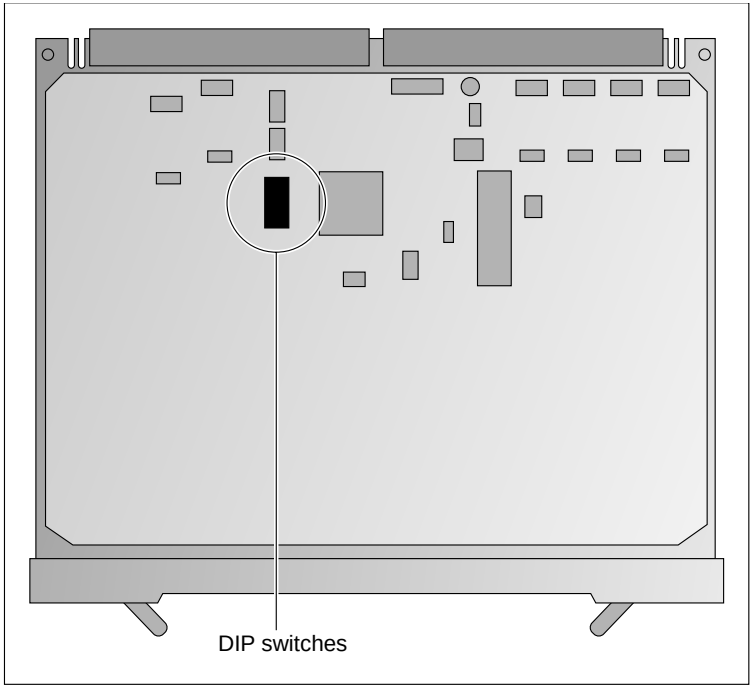
Note: If you are installing more than one MGate card, they do not have to be installed adjacent to one another within a single cabinet. You do not have to install all MGate cards inside the same cabinet.

For more information about card slots, refer to the *Succession 1000 Planning and Installation Guide* (NTP 553-3023-210).

For the logical slot numbers that you must use when you configure the Succession 1000 system, see “Succession 1000 logical slot numbering” on page 28.

MGate card DIP switches

The following photograph of an MGate card shows the location of the DIP switches:



To set the MGate card's DIP switches

1. Remove the MGate card from its protective sleeve.
2. Set the DIP switches on the MGate card as shown in the following table. These DIP switch settings are used for all MGate cards and all system configurations:

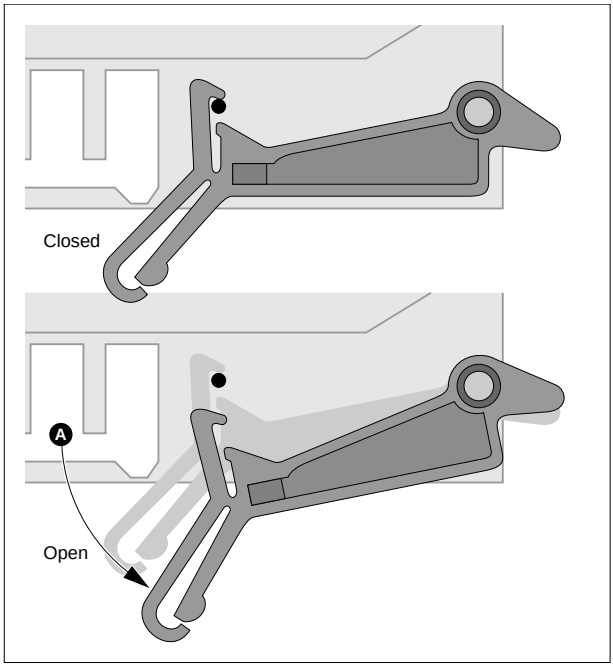
	1	2	3	4	5	6	7	8
ON	X	X	X				X	
OFF				X	X	X		X

To install the MGate card

1. Remove the Media Gateway or Media Gateway Expansion cover.

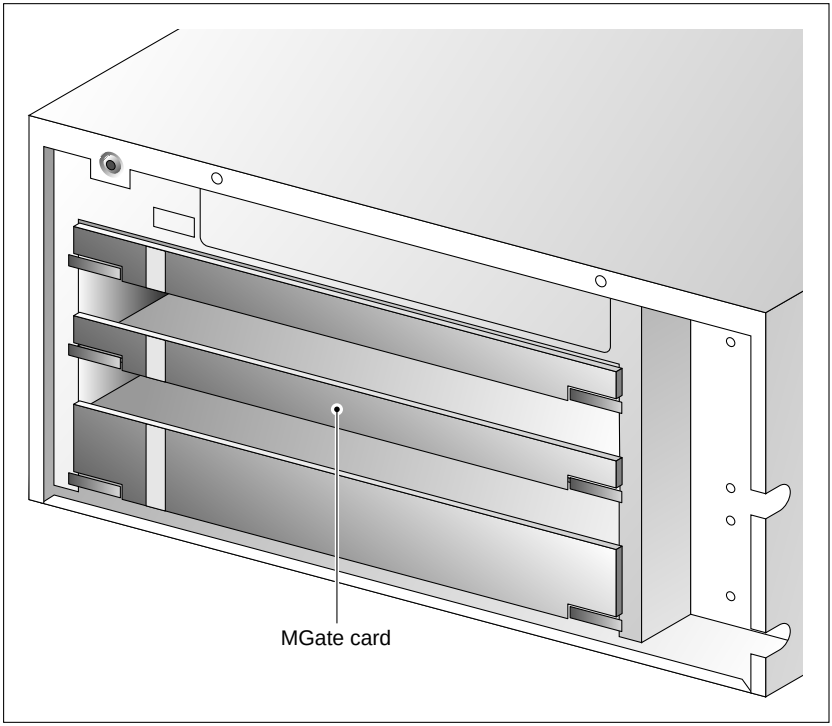
   For instructions, see "Replacing an MGate card" on page 64.
2. Ensure that the slot in which you are installing the MGate does not already have a cable connected.
3. Press and pull the top and bottom latches on the MGate card outward to open the latches for installation of the card.

   A hook on the bottom of the latch must clear a small pin to open. See the following diagram.



4 Slide the MGate card into an unoccupied slot.

When correctly inserted, the top of the MGate card is on the left. See the following diagram:



5 Press the lock latches to close them.

This locks the MGate card into position against the backplane.

6 View the status of the LED indicators to ensure that

- the card is software-enabled (red LED is OFF)
- the card is operational (green LED is ON)

For more information about the LEDs, see “LED indicators” on page 51.

7 Replace the inside front cover plate and front bezel. See “To replace the inside front cover plate” on page 56 and “To replace the front bezel” on page 57.

ATTENTION

Ensure that the tabs on the bottom and right side of the inside front cover plate are positioned inside the Media Gateway or Media Gateway Expansion.

What’s next?

Continue with “Connecting the CallPilot server to the switch” on page 67.

Replacing an MGate card

Introduction

If the MGate card becomes faulty, follow this procedure to replace it.

To replace an MGate card

Note: You do not need to power down the switch for this procedure as the MGate card is hot-swappable.

1. Courtesy down the DS0 channels from the CallPilot administrative PC to stop all call processing gracefully.

   To do this, use the Channel Monitor or the Maintenance page in CallPilot Manager, as described in Part 5 of the *CallPilot Installation and Configuration* binder.

   Note: If your system has multiple MGate cards, you can choose to courtesy stop only the DS30X channels that belong to the MGate card that is being replaced.

2. Remove the switch's front cover to expose the shelf slots.
3. Open the latches to unlock the faulty MGate card.
4. Remove the faulty MGate card from the switch.
5. Press the replacement MGate into the same slot that the faulty MGate card occupied.

   Note: If you place the MGate card in a new slot, then you must do the following:

   a. Reprogram the switch to account for the new slot number.

   b. Move the DS30X cable to the new slot.

   c. Reconfigure the software from the CallPilot administrative client PC.

6 Press the latches on the top and bottom of the MGate card to close them.

Result: This locks the card into position against the backplane.

7 View the status of the LED indicators to ensure that the card is software-enabled (red LED is OFF), and the card is operational (green LED is ON).

8 Reenable the DS0 channels that were disabled before the card was removed.

To do this, use the Channel Monitor or the Maintenance page in CallPilot Manager, as described in Part 5 of the *CallPilot Installation and Configuration* binder.

Section B: Connecting the CallPilot server to the switch

In this section

About the DS30X cable 68

Connecting MPB16-4 boards to MGate cards 70

Connecting the MPB96 board to MGate cards 78

About the DS30X cable

Introduction

The MGate card ships from the factory with the DS30X cables required by the MPB board that is installed in the server.



CAUTION

Risk of data loss

Do not substitute other versions of these boards and cables in the configurations specified in this documentation, as this can result in data loss.

DS30X cables supported by MPB16-4 boards

The DS30X cable that establishes the connection between the MPB16-4 boards and the MGate cards is 10 m (30 ft) long. Therefore, the CallPilot server must be placed within 10 m (30 ft) of the Media Gateway or Media Gateway Expansion.

IF the server is equipped with	THEN the DS30X cable is an
one MPB16-4 board	NTRH2012 cable. This is a single DS30X cable that connects one MPB16-4 board to one MGate card.
more than one MPB16-4 board	NTRH2013 cable. This is a dual DS30X cable that connects the first of two MPB16-4 boards to two MGate cards. The connectors on the NTRH2013 dual DS30X cable are labeled DS30X-1 and DS30X-2.

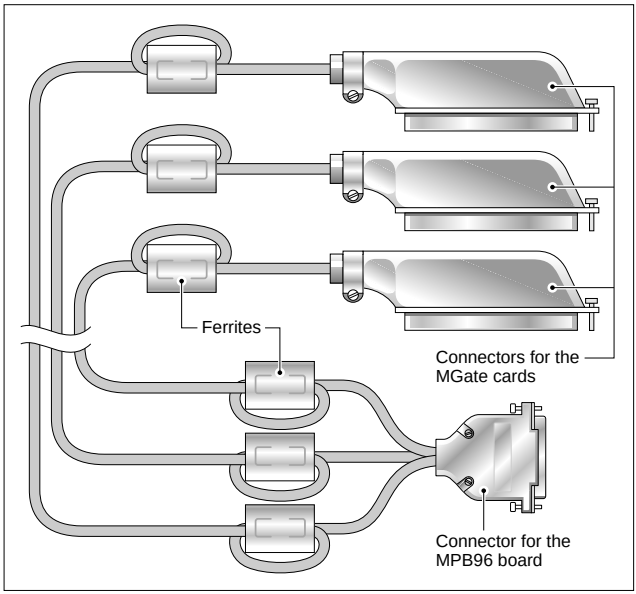
Note: The NTRH2012 and NTRH2013 cables contain ferrites that control EMC emission levels. Do not remove them.

DS30X cable supported by the MPB96 board

The NTRH2014 cable is a triple DS30X cable that connects the MPB96 board to up to three MGate cards. The cable is 20 m (60 ft) long, which allows you to install the CallPilot server in a different room from the Media Gateway or Media Gateway Expansion.

One end of the cable has a 44-pin connector that connects to the MPB96 board's faceplate. The other end of the cable has three 50-pin connectors that connect to MGate cards. The MGate connectors are labeled DS30X-1, DS30X-2, and DS30X-3.

See the following diagram:



Note: The ferrites on this cable control EMC emission levels. Do not remove them.

Connecting MPB16-4 boards to MGate cards

Introduction

The CallPilot server ships from the factory with up to two MPB16-4 boards already installed. Since the MPB16-4 boards are already installed in the server, you only need to connect them to the MGate cards in the Succession 1000 system with the appropriate DS30X cable.

This section describes the MPB16-4 board and MGate card connection scenarios that your CallPilot server supports. You must use the appropriate DS30X cable for the connection scenario—either the NTRH2012 or the NTRH2013 cable.

Note: For a description of the MPB16-4 board, refer to Part 5 of the *CallPilot Installation and Configuration* binder.

Cabling diagrams

The following table lists the supported configurations and the page number that illustrates the configuration:

Number of channels	Number of MPB16-4 boards	Number of MGate cards	See
32 or less	1	1	page 72
32 or less	2	1	page 73
48 or less	1	2	page 74
48 or less	2	2	page 75

Identifying the location of MPB #1 and MPB #2

In the cabling diagrams, the terms MPB16-4 #1 and MPB16-4 #2 are used to identify the two MPB16-4 boards. The table below indicates the location of these boards:

MPB #	Slot number in		
	702t server	1001rp server	1002rp server
MPB16-4 #1[a]	slot 2	slot 12	slot 11
MPB16-4 #2	slot 3	slot 13	slot 12

a. For the 702t server, slots are numbered from the bottom of the server to the top. For the 1001rp and 1002rp servers, MPB16-4 #1 is the MPB16-4 board closest to the SBC card. For more information on slot assignments, refer to the slot assignment tables in Part 2 of the *CallPilot Installation and Configuration* binder.

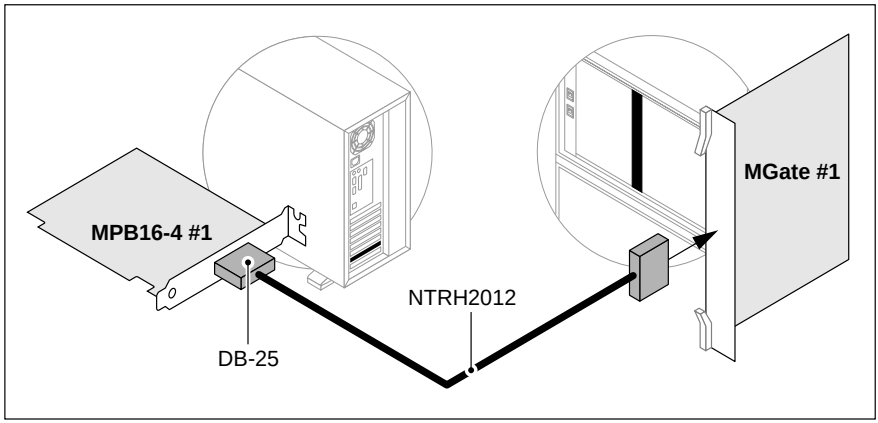
Identifying the location of MGate #1, #2, and #3

In the cabling diagrams, the terms MGate #1, MGate #2, and MGate #3 identify the MGate cards. MGate #1 is in the lowest-numbered slot in the Media Gateway or Media Gateway Expansion. MGate #2 and MGate #3 are in the next available higher slots.

One MPB16-4 board and one MGate card (32 channels or less)

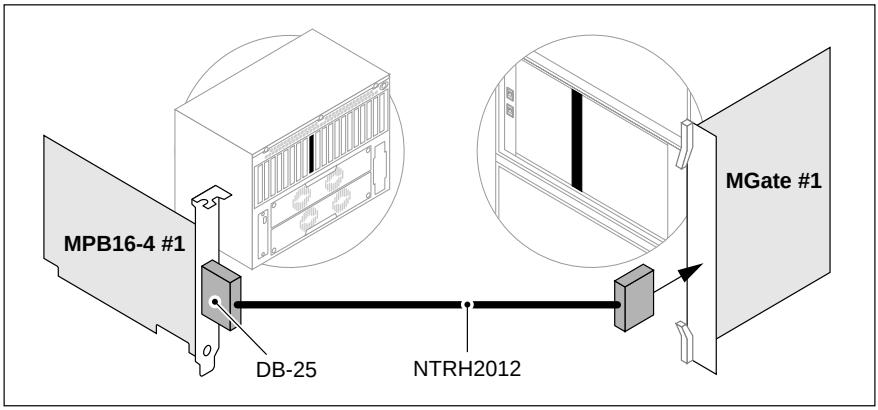
Use the single cable (NTRH2012) to connect the MPB16-4 board to the MGate card.

MGate cabling for the 702t server



G101724

MGate cabling for the 1001rp or 1002rp server



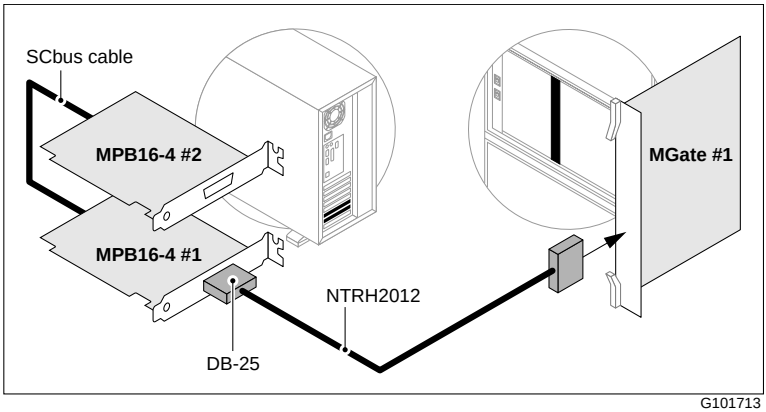
G101716

Two MPB16-4 boards and one MGate card (32 channels or less)

Use the DS30X single cable (NTRH2012) to connect the MPB16-4 #1 to the MGate card.

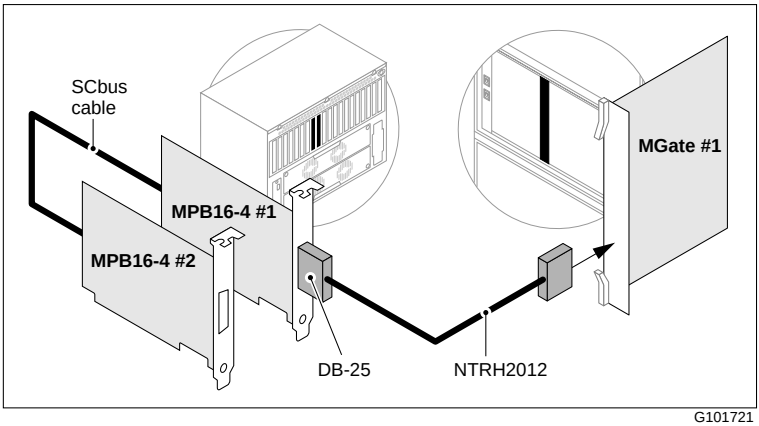
Note: The MPB number is identified during system startup. Therefore, you must connect the DS30X cable to the MPB assigned the lower bus number by the software.

MGate cabling for the 702t server



G101713

MGate cabling for the 1001rp or 1002rp server



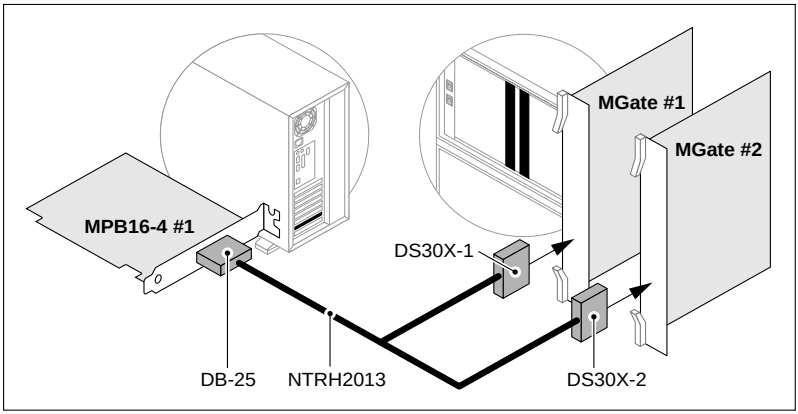
G101721

One MPB16-4 board and two MGate cards (48 channels or less)

Use the NTRH2013 cable, as shown in the diagrams that follow. Ensure that

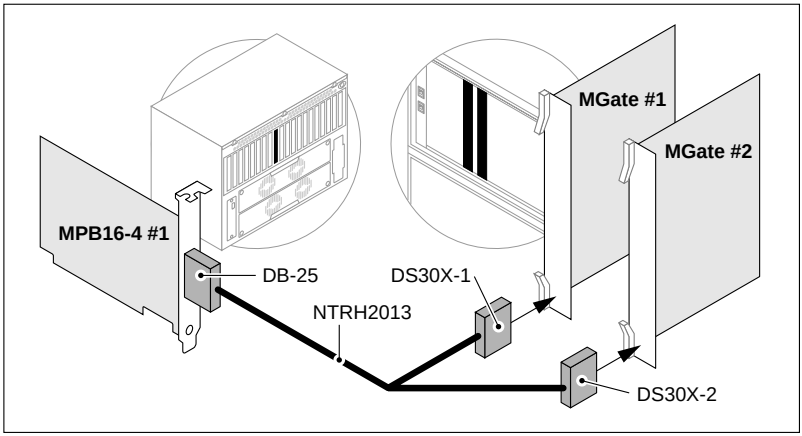
- the connector labeled DS30X-1 is connected to MGate #1
- the connector labeled DS30X-2 is connected to MGate #2

MGate cabling for the 702t server



G101725

MGate cabling for the 1001rp or 1002rp server



G101717

Two MPB16-4 boards and two MGate cards (48 channels or less)

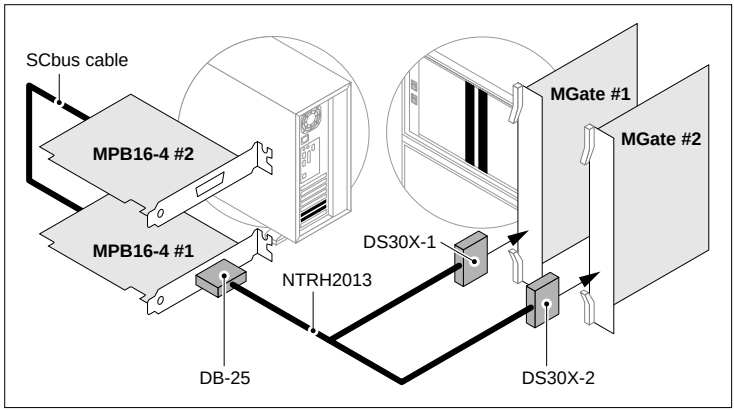
ATTENTION

Due to CPU limitations on the Succession 1000 system, only 48 CallPilot multimedia channels can be supported.

Use the NTRH2013 cable, as shown below. Ensure that

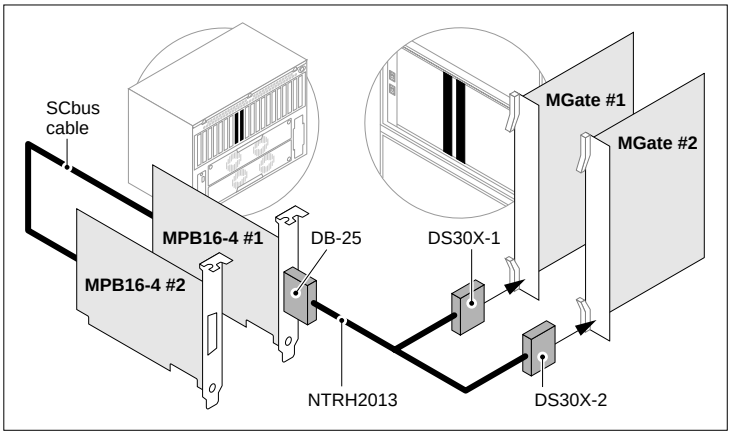
- the connector labeled DS30X-1 is connected to MGate #1
- the connector labeled DS30X-2 is connected to MGate #2

MGate cabling for the 702t server



G101714

MGate cabling for the 1001rp or 1002rp server



To connect the DS30X cable

Before you begin, review the supported cabling configurations illustrated in “Cabling diagrams” on page 70.

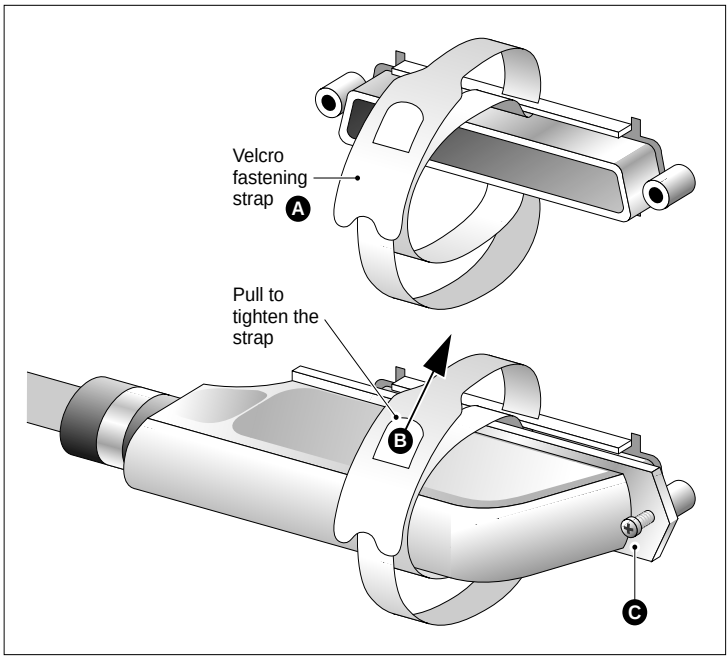
ATTENTION

Due to CPU limitations on the Succession 1000 system, only 48 CallPilot multimedia channels can be supported.

1. On the rear of the Media Gateway or Media Gateway Expansion, locate the connector associated with the slot occupied by the MGate card.
2. Attach the DS30X connector on the NTRH2012 or NTRH2013 cable to the slot connector as shown in the previous diagrams.
   a. Loosen the connector’s Velcro fastening strap.
   b. Connect the amphenol connector on the MGate cable to the connector on the back of the Media Gateway or Media Gateway Expansion.

c. Secure the connection by tightening the connector's retaining screw and Velcro fastening strap.

The following diagram shows how to secure the MGate cable connection:



3 Connect the other end of the MGate cable to the MPB16-4 board's connector on the back of the CallPilot server.

What's next?

Continue with Chapter 3, "Configuring the Succession 1000 system" on page 81.

Connecting the MPB96 board to MGate cards

Introduction

The CallPilot server ships from the factory with one MPB96 board already installed. Since the MPB96 board is already installed in the server, you only need to connect it to the MGate card in the Succession 1000 system with the NTRH2014 DS30X cable.

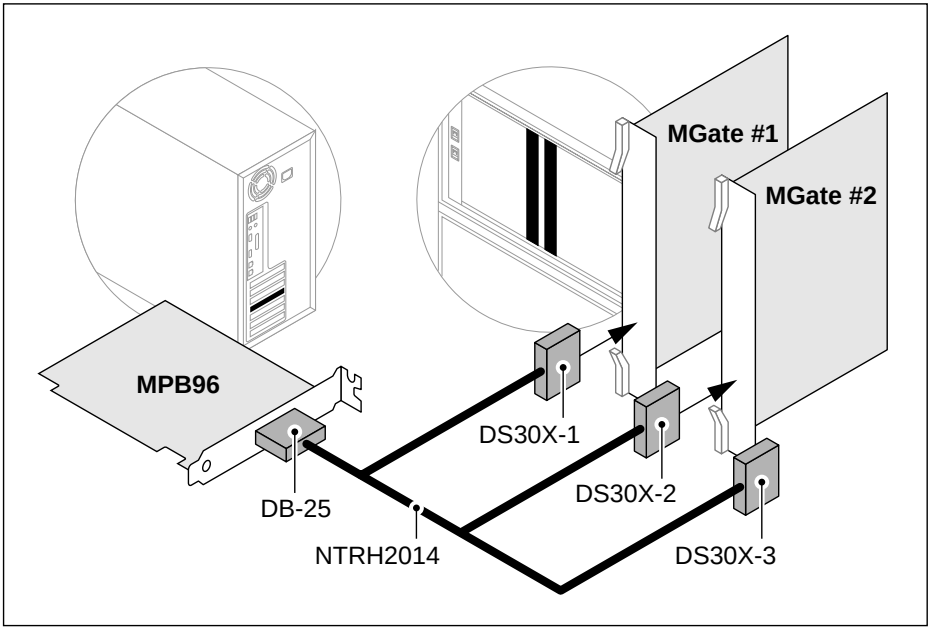
You connect the MPB96 board to up to three MGate cards depending on the number of DS0 channels. If fewer than three MGate cards are present, you can leave the unused parts of the NTRH2014 cable unconnected.

ATTENTION

Due to CPU limitations on the Succession 1000 system, it can only support 48 CallPilot multimedia channels.

Note: For a description of the MPB96 board, refer to Part 5 of the *CallPilot Installation and Configuration* binder.

MGate cabling overview (maximum 48 channels)

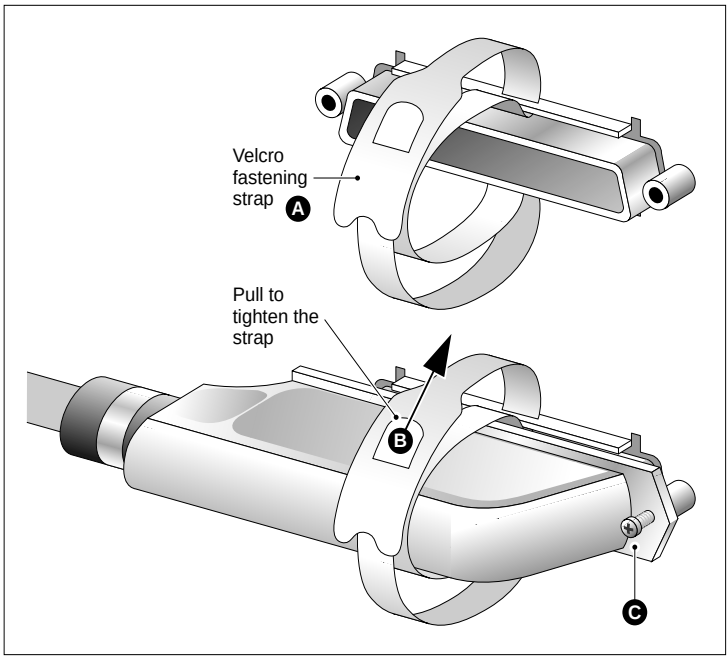


To install the DS30X cable for the MPB96 board

1. On the rear of the Media Gateway or Media Gateway Expansion, locate the connector associated with the slot occupied by the MGate card.
2. Attach the DS30X connector on the NTRH2014 cable to the slot connector as shown in the previous diagram.
   a. Loosen the connector's Velcro fastening strap.
   b. Connect the amphenol connector on the MGate cable to the connector on the back of the Media Gateway or Media Gateway Expansion.

c. Secure the connection by tightening the connector's retaining screw and Velcro fastening strap.

The following diagram shows how to secure the MGate cable connection:



3 Connect the other end of the MGate cable to the MPB96 board's connector on the back of the CallPilot server.

What's next?

Continue with Chapter 3, "Configuring the Succession 1000 system" on page 81.

Chapter 3

Configuring the Succession 1000 system

In this chapter

Succession 1000 hardware and software requirements 82

Succession 1000 configuration checklist 83

Provisioning the ELAN 88

Defining the Message Register for AML message tracing 91

Configuring Succession 1000 IP addresses and enabling the Ethernet interface 93

Defining CallPilot in the customer data block 98

Configuring the ACD agent queue 104

Configuring ACD agents 106

Enabling the card slots 109

Defining the default ACD DN 110

Configuring CDN queues for messaging services 112

Configuring phantom DNs 114

Configuring dummy ACD DNs 119

Provisioning user phonesets 121

Configuring the route data block for Network Message Service 126

Saving Succession 1000 changes 128

Succession 1000 hardware and software requirements

Required hardware

To support connectivity to tower and rackmount CallPilot servers, you must install one or more MGate cards in the Media Gateway or Media Gateway Expansion, as described in Chapter 2, “Connecting the CallPilot server to the Succession 1000 system,” on page 47.

ATTENTION

An MGate card is not used with the 201i server.

Also, the 200i server is not supported on the Succession 1000 system.

Required Succession 1000 system software

To support the CallPilot 201i server, the Succession 1000 system requires software release X21 Release 1.0 or later.

To support the CallPilot 702t, 703t, 1001rp, or 1002rp servers, the Succession 1000 system requires software release X21 Release 1.1 or later.

Required X21 PEPs

If X21 PEPs are required, the *General Release Bulletin* provides this information and is available at http://my.nortelnetworks.com. You require a username and password to access this site.

X21 PEPs are available only on the Meridian PEP library (MPL) web site. North American customers can go to http://www43.nortelnetworks.com/MPL. All other customers should check the *General Release Bulletin* for the correct web site (the web site URL may vary by region). You require a user name and password to access this site.

Succession 1000 configuration checklist

Introduction

The following checklist provides a list of the tasks you must complete for correct CallPilot and Succession 1000 system interoperation. Detailed instructions are provided for each task, as indicated, in the remainder of this chapter.

Configuration checklist

Step		Overlay	See page	Check
1	Ensure that the ELAN for the AML link and its associated VSID in the configuration record is defined. This provides the Ethernet connection over which AML messages are exchanged between the Succession 1000 system and CallPilot.	17	page 88	❒
2	Define the Message Register for AML message tracing.	17	page 91	❒
3	If the Succession 1000 system has not been defined with an IP address, configure it for the ELAN interface.	117	page 93	❒
4	Enable the ELAN link.	137	page 93	❒
5	Enable the ELAN connection.	48	page 93	❒

Step		Overlay	See page	Check
6	Define CallPilot in the customer data block with the Call Park Allowed (CPA) and Message Center Included (MCI) options enabled. Also define in the customer data block how unanswered and busy calls are routed.	15	page 98	❒
7	Define the Call Forward by Call Type feature.	16	page 103	❒
8	Create an ACD agent queue to hold the agents that service CallPilot. If you are enabling the Symposium Voice Services Support feature, you must also set up two additional ACD agent queues—one for ACCESS ports, and one for IVR ports.	23	page 104	❒
9	Create an agent for each CallPilot channel. All agents belong to the ACD agent queue(s) that you created in step 8.	11	page 106	❒
10	Enable the slots in which the MGate card or 201i server is installed.	32	page 109	❒
11	Define the default ACD DN that will be referenced in each CDN queue. Set this ACD DN as night call forward to the attendant.	23	page 110	❒

Step		Overlay	See page	Check
12	Create two CDN queues as follows: ■ Create a primary CDN for Voice Messaging. ■ Create a secondary CDN for Multimedia Messaging.	23	page 112	❒
13	If required, create a phantom loop.	97	page 114	❒
14	Create a phantom DN or dummy ACD DN for each service that must be directly dialable.	10 or 23	page 114 or page 119	❒
15	Provision user phonesets to support CallPilot. **Notes:** ■ To determine which phonesets are supported by the Succession 1000 system, refer to the *Succession 1000 Planning and Installation Guide* (NTP 553-3023-210). ■ For instructions on provisioning i2004 phonesets, refer to *Succession 1000 Input/Output X21 Administration* (NTP 553-3023-311).	11 or 10	page 121	❒
16	If you purchased Network Message Service, configure the route data block.	16	page 126	❒
17	Save the configuration changes.	43	page 128	❒

Step		Overlay	See page	Check
18	If you made changes to the ELAN interface configuration in step 3 of this checklist, perform a Succession 1000 INI after you have saved the configuration changes (as instructed in step 17 of this checklist).	n/a	n/a	❒

Note: You can also print configuration information from overlay 20 at any time.

How the overlays are presented in this chapter

Overlays are programmed by responding to a series of prompts. The procedures in this section mention only those prompts that require a specific entry for CallPilot.

You can program other prompts if necessary for your site. To accept the default value for other prompts, press Enter.

ATTENTION

Ensure that you update the Succession 1000 database when you finish making changes, as described in “Saving Succession 1000 changes” on page 128.

Working with overlays

When you work with overlays, follow these general steps:

1. Load the appropriate overlay.
2. Respond to the prompts as shown in the tables in this section. Press Enter after each prompt until you reach the next one that you must define for CallPilot.

3. When you complete the configuration, enter ******** in response to the REQ prompt.

The customer number

CallPilot can only be provided on a per customer basis on the Succession 1000 system. AML messages used for communications between the Succession 1000 system and CallPilot contain a customer number to which CallPilot belongs.

ATTENTION

When you enter the customer number in the overlays, ensure that it is the correct customer number.

Provisioning the ELAN

Introduction

Define and configure the ELAN for the AML link and its associated VSID in the configuration record. This provides the Ethernet connection over which AML messages are exchanged between the Succession 1000 system and CallPilot.

To provision the ELAN

1 Load overlay 17.

2 For each prompt listed below, enter the response indicated.

For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	CHG	Change
TYPE	ADAN	Action device and number
ADAN	NEW ELAN xx	Configure a new link and assign it a number, where xx is within the ELAN range (16–31). You can use any number in this range as long as it is not already used.
CTYP	ELAN	Card type
DES	x...x	Enter a designator to identify this ELAN.
REQ	CHG	Change
TYPE	VAS	Value added server configuration

Prompt	Response	Description
VAS	new	Configure a new AML link or change the existing link configuration.
VSID	yy	The VAS identifier can be in the range of 16–31. For convenience, this can be the same number you assigned to the new ELAN link (in response to the ADAN prompt).
ELAN	xx	This should be the same number defined in ADAN.
SECU	x...x	If you have Symposium connected to your switch, choose YES (even if you are not using Symposium Voice Services Support).
REQ	CHG	Change
TYPE	PARM	System parameters
NCR	x...x	Number of call registers (range depends on system type). Increment the current value by 2 x the number of CallPilot DS0 channels. For example, if the current NCR value is 500 and there are 24 DS0 channels, change the NCR value to 548.
CSQI	(20) to 255	Maximum number of call registers for CSL input queues. Set this parameter to 2 x the number of CallPilot DS0 channels. For example, if there are 24 DS0 channels, enter 48.

Prompt	Response	Description
CSQO	(20) to 255	Maximum number of call registers for CSL/AML output queues. Set this parameter to 2 x the number of CallPilot DS0 channels. For example, if there are 24 DS0 channels, enter 48.
	<Enter>	Press Enter until you reach the end of the overlay (REQ prompt).
REQ	****	Exits the overlay.

Defining the Message Register for AML message tracing

Introduction

This section provides instructions for updating the Message Register (MGCR) parameter.

The MGCR parameter affects the AML output when message tracing is turned on for the ELAN.

ATTENTION

The MGCR parameter is used by your Nortel Networks customer support representative to troubleshoot your CallPilot Succession 1000. This parameter is not required for normal day-to-day CallPilot operation.

To define the MGCR parameter

1. Load overlay 17.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	CHG	Change
TYPE	PARM	System parameters
MGCR	0 to NCR	Maximum number of call registers used by AUX messaging. The recommended value for CallPilot is 25.

Prompt	Response	Description
REQ	****	Exits the overlay.

Configuring Succession 1000 IP addresses and enabling the Ethernet interface

Introduction

If the Succession 1000 system has not been defined with the necessary IP address information (see below), configure the IP addresses for the Ethernet interface. You must also enable the Ethernet interface, as described in this section.

Notes:

- The Succession 1000 system has a single CPU and, therefore, only one Ethernet interface and a primary IP address.
- If the Succession 1000 system is also connected to a CLAN, a gateway IP address must be defined.

ATTENTION

To change an IP address *after* CallPilot is installed and running, you must do the following:

1 Courtesy stop and shut down CallPilot.

2 Change the IP addresses on the switch, as described in this section.

3 Restart CallPilot.

4 Rerun the CallPilot Configuration Wizard to update the switch IP address information.

To configure the IP addresses and enable the Ethernet interface

The following data is used in examples in this procedure:

Data	Value (examples only)
Primary IP address	47.1.1.10
Primary Host Name	PRIMARY_HOST
Subnet mask	255.255.255.0
Default gateway IP address	47.1.1.1
Network IP address	0.0.0.0

1. Load overlay 117.
2. Perform the following substeps to check the current IP addresses to see if they already match what you have planned to configure for CallPilot.

   If the current values displayed by the following commands must be updated, then continue with the remaining steps in this procedure. Otherwise, go to step 15.

   a. Type **PRT HOST** and press Enter.

   b. Type **STAT HOST** and press Enter.

   c. Type **PRT MASK** and press Enter.

   d. Type **PRT ELNK** and press Enter.
3. Load overlay 137.
4. Type **DIS ELNK** and press Enter.
5. Type **STAT ELNK** and press Enter.
6. Confirm that the system displays ELNK DISABLED.
7. Load overlay 117.

8 Create a host entry for the primary IP address by entering the following command:

NEW HOST *NAME xxx.xxx.xxx.xxx* (where *NAME* is the host name for the primary IP address, and *xxx.xxx.xxx.xxx* is the primary IP address)

Example

NEW HOST PRIMARY_HOST 47.1.1.10

9 If the Succession 1000 system is connected to a CLAN, create a host entry for the gateway IP address by entering the following command:

NEW HOST *NAME xxx.xxx.xxx.xxx* (where *NAME* is the host name for the gateway IP address, and *xxx.xxx.xxx.xxx* is the gateway IP address)

Example

NEW HOST GATEWAY 47.1.1.1

10 Assign a host to the primary IP address by entering the following command:

CHG ELNK ACTIVE *NAME* (where *NAME* is the host name for the primary IP address)

Example

CHG ELNK ACTIVE PRIMARY_HOST (entry for primary host)

11 Set up the Ethernet subnet mask by entering the following command:

CHG MASK *xxx.xxx.xxx.xxx* (where *xxx.xxx.xxx.xxx* is the subnet mask)

Example

CHG MASK 255.255.255.0

12 If using a gateway, ensure that the routing entry is set up and enabled.

If the route has been set up previously (due to an existing Ethernet-connected solution) go to step 13. Otherwise, set up and enable the routing entry as follows:

a. Set up the routing entry by entering the following command:

NEW ROUTE *xxx.xxx.xxx.xxx yyy.yyy.yyy.yyy*
(where *xxx.xxx.xxx.xxx* is the network IP address and *yyy.yyy.yyy.yyy* is the gateway IP address; put one space between the network IP address and the gateway IP address)

Example

NEW ROUTE 0.0.0.0 47.1.1.1

b. Enable the route by entering the following command:

ENL ROUTE *x* (where *x* is the number assigned to the ROUTE entry)

13 Update the INET database by entering the following command:

UPDATE DBS

14 Type ******** and press Enter to exit the overlay.

15 Load overlay 137.

16 Type **STAT ELNK** and press Enter.

17 If the system displays ELNK ENABLED, then go to step 18.

If the system displays ELNK DISABLED, then do the following substeps:

a. Type **ENL ELNK** and press Enter.

b. Type **STAT ELNK** and press Enter.

c. Confirm that the system displays ELNK ENABLED. Then go to step 18.

18 Load overlay 48.

19 Type **STAT ELAN** and press Enter.

20 If the system displays ELAN ENABLED, then go to step 21.

If the system displays ELAN DISABLED, then do the following substeps:

a. Type **ENL ELAN** and press Enter.

b. Type **STAT ELAN** and press Enter.

c. Confirm that the system displays ELAN ENABLED. Then go to step 21.

21 Load overlay 117.

22 Verify the changes as follows:

a. Type **PRT HOST** and press Enter.

b. Type **STAT HOST** and press Enter.

c. Type **PRT MASK** and press Enter.

Defining CallPilot in the customer data block

Introduction

You must define the CallPilot service in the customer data block, with the Call Park Allowed (CPA) and Message Center Included (MCI) options enabled.

During this configuration, you also define how unanswered and busy calls are routed:

- Flexible Call Forward (FNAD/FNAN/FNAL) is set on a per customer basis. Define the call forward DN in the user's phoneset data.
- Call Forward No Answer/Busy (MDID/NDID/MWFB) is set on a per customer basis. All no answer and busy calls are routed to the flexible call forward DN, provided that the called phoneset has the Message Waiting Allowed (MWA) class of service enabled.

Normally, non-Direct Inward Dialing (DID) calls are routed to CallPilot when a no answer or busy condition is encountered. As an option, you can route DID calls to the attendant's or user's Hunt DN.

To modify the customer data block

1. Load overlay 15.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	CHG	Change
TYPE	FTR	Customer features and options

Prompt	Response	Description
CUST	xx	Customer number (0–99)
OPT	CPA MCI	Call Park Allowed and Message Center Included are enabled for the customer.
IDEF	YES or NO	Internal/External Definition Set to YES if Call Forward by Call Type feature (CFCT) is enabled on the Succession 1000 system.

3 Load overlay 15 again, and then for each prompt listed below, enter the response indicated:

Prompt	Response	Description
REQ	CHG	Change
TYPE	ATT	Attendant consoles
CUST	xx	Customer number (0–99)
ATDN	(0) yyyy	Attendant DN
MATT	NO (YES)	Set to YES if Network Message Service (NMS) has not been purchased. If NMS has been purchased, set the primary Succession 1000 system to YES and all secondary systems to NO.
AQTT	1–255 (30)	Attendant Queue Timing Threshold in seconds

Prompt	Response	Description
AODN	CallPilot CDN	Attendant Overflow DN. Set this prompt to a CallPilot CDN to launch a CallPilot service when the attendant overflows. The SDN Table in CallPilot must have the desired AODN service defined for DN 0. The Succession 1000 system issues an SCH1872 error, but accepts the DN. This error is a warning that the DN must be a CallPilot CDN.

4 Load overlay 15 again, and then for each prompt listed below, enter the response indicated:

Prompt	Response	Description
REQ	CHG	Change
TYPE	RDR	Call Redirection
CUST	xx	Customer number (0–99)
FNAD	FDN	Call forward no answer DID calls are routed to flexible CFNA DN.
FNAN	FDN	Call forward no answer non-DID calls are routed to flexible CFNA DN.
FNAL	FDN	Call forward no answer local calls (with CFCT enabled) are routed to flexible CFNA DN.

Prompt	Response	Description
CFNA, CFN0, CFN1, CFN2	4	The number of ring cycles before the call is forwarded. The prompts CFN0, CFN1, and CFN2 may appear instead of CFNA, depending on the release installed on the Succession 1000 system. Refer to your Succession 1000 system X21 documentation for details.

5 Load overlay 15 again, and then for each prompt listed below, enter the response indicated:

Prompt	Response	Description
REQ	CHG	Change
TYPE	FTR	Customer features and options
CUST	xx	Customer number (0–99)
EEST	(NO) YES	The originating party does not receive DTMF feedback. Set remote Succession 1000 sites to NO.

6 Load overlay 15 again, and then for each prompt listed below, enter the response indicated:

Prompt	Response	Description
REQ	CHG	Change
TYPE	NET	Networking
CUST	xx	Customer number (0–99)
ISDN	(NO) YES	Set to YES only if NMS has been purchased. Otherwise, set to NO.

Prompt	Response	Description
PNI		NMS only. The Private Network Identifier. Within one network, use the same PNI value in overlays 15 and 16. When you interwork with different networks, enter the PNI of this Succession 1000 system in overlay 15, and the PNI of the remote Succession 1000 system in overlay 16.
HLOC		NMS only. Home Location Code (ESN) of the Succession 1000 system. This can be in the range 100–999.
LSC		NMS only. Local Steering Code (established in the Coordinated Dialing Plan, or CDP) of the Succession 1000 system. This prompt only appears for 5- or 6-digit dialing plans.
	<Enter>	Press Enter until you reach the end of the overlay (REQ prompt).
REQ	****	Exits the overlay.

Additional steps to support the Call Forward by Call Type feature

The Call Forward by Call Type (CFCT) feature is installed as part of the base X21 software.

1. Load overlay 16.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

   Note: IDEF must be set to YES in overlay 15 to support CFCT and for the IDEF prompt to appear in overlay 16 (see “To modify the customer data block” on page 98).

Prompt	Response	Description
REQ	NEW or CHG	
TYPE	RDB	Route data block
CUST	xx	Customer number (0–99)
ROUTE		Route number
RCLS	EXT	Route class is marked as external.
IDEF	LOC	Use local data to define a call as internal or external.
	<Enter>	Press Enter until you reach the end of the overlay (REQ prompt).
REQ	****	Exits the overlay.

Configuring the ACD agent queue

Introduction

You must set up only one ACD agent queue to service CallPilot, unless you are enabling the Symposium Voice Services Support feature (see "Symposium Voice Services Support additional requirements" below). This queue holds all the agents that correspond to DS0 channels on the CallPilot server.

Note: The ACD DN is not normally used as a Service DN. However, in applications where calls are to be overflowed into CallPilot, you must define the ACD DN as a Service DN.

Symposium Voice Services Support additional requirements

If you are enabling the Symposium Voice Services Support feature, you must set up two additional ACD agent queues: one for ACCESS ports, and one for IVR ports. A segment of the CallPilot ports must be dedicated to the Symposium Voice Services Support feature.

To configure an ACD agent queue

1. Load overlay 23.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	NEW	Add new data.
TYPE	ACD	Indicates this is an ACD queue.
CUST	xx	Customer number (0–99)

Prompt	Response	Description
ACDN	yyyy	This is the ACD DN for CallPilot.
MWC	NO For a 201i server, set one ACD queue to YES (does not have to be a CallPilot ACD queue).	Message Waiting Center. Set to NO. (Set to YES for 201i server).
MAXP	zzzz	Maximum number of agents. MAXP must be equal to or greater than the total number of multimedia channels installed on your system.
IVR	YES	Interactive Voice Response queue
ALOG	YES	Provide automatic logon for ACD agents.
	<Enter>	Press Enter until you reach the REQ prompt.
REQ	****	Exits the overlay.

Configuring ACD agents

Introduction

For CallPilot, you must define channels as ACD agents on M2008 digital sets. All agents are added to the ACD queue(s) that you have configured.

Each agent must have the VCE, WTA, UNR, and MMA class of service. To get the VCE class of service on the upper 16 units (15 to 31), you must first specify the FLXA class of service. Each agent must be provisioned with the following feature keys: ACD, SCN, NRD, MSB, TRN, and AO3.

Note: You can define a more restrictive class of service for the agents (for example, Conditionally Toll Denied [CTD]). Call restrictions in effect for the class of service take precedence over the dialing restriction/permission provided by CallPilot.

Terminal numbers

A Terminal number (TN) is required for each agent.

Integrated server (201i server)

For the 201i server, ACD agents use TNs associated with the slot location of the 201i server.

Tower or rackmount servers

For the tower and rack versions of the CallPilot server, ACD agents use TNs associated with the slot location of the MGate card.

Position IDs

You also need a Position ID for each agent. The server uses the position ID to inform the Succession 1000 system to which agent an incoming call should be routed.

For ease of maintenance, assign sequential numbers to the IDs that are not already in use.

To configure agents

1. Load overlay 11.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	NEW	
TYPE	2008	ARIES digital set with 8 programmable keys.
TN	c u	Terminal number of the MGate card (tower and rack server), or the 201i server, where **c** is the card, and **u** is the unit.
CUST	xx	Customer number (0–99)
CLS	VCE WTA UNR MMA (units 0–15) FLXA VCE WTA UNR MMA (units 16–31)	Voice terminal, Warning tone allowed, Unrestricted, Multimedia Agent, Flexible voice/ data allowed.
key	0 acd xxxx 0 yyyy	where xxxx is the ACD DN of the CallPilot agent queue, and yyyy is the Position ID of the agent.
key	1 scn zzzz	where zzzz is the single-call non-ringing DN used to make outbound calls.
key	2 msb	Make Set Busy

Prompt	Response	Description
key	3 nrd	Not Ready
key	4 trn	Transfer
key	5 ao3	Three-Party Conference
AST	0 1	If you are enabling the Symposium Voice Services Support feature, you must define 0 and 1 as the AST key 0 and key 1 values. If you are not enabling the Symposium Voice Services Support feature, then press Enter to skip this prompt.
	<Enter>	Press Enter to the end of the overlay (the REQ prompt).
REQ		If you are finished adding agents, enter ******** to exit the overlay. To add another agent, return to the top of the table.

Enabling the card slots

Introduction

After you have configured the ACD agents, use overlay 32 to ensure that the card slots used by an MGate card or 201i server are enabled.

Note: The 201i server occupies two slots. Both slots must be enabled to use all ports supported by the 201i server.

To enable the card slots

Note: This procedure uses the syntax **STAT n** and **ENLC n**.

1. Load overlay 32.
2. Type **STAT *n*** and press Enter, where *n* is the card slot used by an MGate card or 201i server.

   Result: The status of the ACD agents defined for this slot appears. If the ACD agents are disabled, then enable the card slot.
3. Type **ENLC *n*** and press Enter, where *n* is the card slot used by an MGate card or 201i server.
4. To verify that the card slot and the ACD agents are enabled, type **STAT *n*** and press Enter, where *n* is the card slot used by an MGate card or 201i server.

   Result: The status of the ACD agents defined for this slot appears.
5. Repeat this procedure for all other card slots used by an MGate card or 201i server.

Defining the default ACD DN

Introduction

Before you configure the CDN queue, define the default ACD DN that needs to be referenced in the CDN. During normal operation, the CDN is in control mode, and callers are queued to be routed and then answered by CallPilot services. Under error conditions (for example, if the AML link is down), the CDN operates in default mode and calls are routed to the default ACD DN defined for the CDN. This section describes how to set up the default ACD DN so that these calls are handled by the attendant.

For the attendant to process incoming calls to CallPilot when the CDN is in default mode, define a dummy ACD DN and set it to night call forward to the attendant.

Note: This section describes one possible setup for the default ACD DN. The default ACD DN can be defined as an ACD queue with live agents, a Meridian Mail ACD-DN, or a dummy ACD-DN that is night call forwarded to a phone set.

To create a default ACD DN

1. Load overlay 23.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	NEW	
TYPE	ACD	
CUST	0	Customer number (0–99)

Prompt	Response	Description
ACDN	xxxx	The ACD DN. Enter this DN as the DFDN in the CDN configuration.
MWC	NO	Message Waiting Center. Set to NO.
MAXP	1	This indicates that there are no agents in this queue and it is, therefore, a dummy queue.
NCFW	0	Night call forward to the attendant.
	<Enter>	Press Enter to the end of the overlay (the REQ prompt).
REQ	****	Exits the overlay.

Configuring CDN queues for messaging services

Introduction

Configure the following CDN queues:

- Configure a primary CDN for Voice Messaging. This becomes the main CDN queue.
- Configure a secondary CDN for Multimedia Messaging, if you want to provide users with fax capability.

Note: Nortel Networks strongly recommends that you use either a phantom DN or a dummy ACD DN for all other messaging services.

To configure a CDN queue

1. Load overlay 23.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	NEW	
TYPE	CDN	Control DN queue
CUST	xx	Customer number (0–99)
CDN	yyyy	The Control DN of the queue. This number must be entered as the SDN for the messaging service in the SDN Table.

Prompt	Response	Description
DFDN	zzzz	The default ACD DN (see page 110). Calls to the CDN are directed to this ACD DN if the link or CallPilot goes down. Nortel Networks recommends that this is not defined as the ACD DN of the CallPilot ACD queue.
VSID	<Enter>	Press Enter so that the ID is dynamically assigned to the CDN when the ELAN link is established.
	<Enter>	Press Enter to the end of the overlay (the REQ prompt).
REQ		To configure another CDN, return to the top of the table. To exit, enter ********.

Configuring phantom DNs

Introduction

There are two reasons for configuring phantom DNs on the switch:

- to create dialable numbers for CallPilot services
- to create virtual fax DNs for users who want a separate fax number

ATTENTION

Another option is to configure dummy ACD DNs instead of phantom DNs. See “Configuring dummy ACD DNs” on page 119.

Supporting multiple languages

For Fax Item Maintenance, Voice Item Maintenance, Speech Activated Messaging, and Paced Speech Messaging, you might have purchased multiple language support.

This means that, for example, you can create an English and a Spanish version of Voice Item Maintenance if you have these languages installed. To support this, you need to create a phantom DN for each supported language. Therefore, in this case, you need two phantom DNs (one for English Voice Item Maintenance and one for Spanish Voice Item Maintenance). This also means that callers must dial a different number to access the service, based on the language they prefer.

Virtual fax DNs for users with fax capabilities

Users who have fax capabilities can have one DN that serves as both their regular extension number and their fax number. In this case, you set up a phone for the user as described in “Provisioning user phonesets” on page 121. The user’s phone must be forwarded to the Multimedia Messaging CDN.

However, some users may need two separate DNs—one DN that serves as their regular telephone number, and a second DN that serves as their fax number. For these users, you cannot simply define the virtual fax DN as another DN on the user's phoneset. Instead, you must set up a TN as the virtual fax DN. Since physical TNs are more costly, Nortel Networks recommends that you configure phantom DNs instead.

A separate TN is necessary because a single TN (the telephone) can only be call forwarded to one DN (regardless of how many DNs appear on that phone). For these users, you must ensure that their telephone number (the mailbox DN) forwards to the Voice Messaging CDN, whereas their fax number (the virtual fax DN) forwards to the Multimedia Messaging CDN.

Note: When you add the user to CallPilot (as a mailbox owner), you must define this virtual fax DN as one of the user's extension DNs.

To check for existing phantom loops

A phantom loop must exist before you begin to configure phantom DNs. Use overlay 22 to print the configuration record to see if any phantom loops are already configured. A phantom loop is shown with the prefix "P", illustrated in this example:

Note: You can use superloops as phantom loops.

```
.
CEQU
  MPED 8D
  SUPL 000 004 008 012
       016  032  036  040
        048  P064  P068    (phantom loops 64 and 68)
DDCS
.
.
```

If no phantom loops are configured, then continue with "To configure a phantom superloop" on page 116. If a phantom loop is configured, then go to "To configure a phantom DN" on page 117.

To configure a phantom superloop

1. If no phantom loops are configured, load overlay 97.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	CHG	
TYPE	SUPL	Superloop
SUPL	Nxxx	Prefix the loop number with N to create a phantom loop. The loop number range is 96–112 in multiples of 4 (corresponds to slots 61–80).
	<Enter>	Press Enter to the end of the overlay (the REQ prompt).
REQ	****	Exits the overlay.

To configure a phantom DN

1. Load overlay 10.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	NEW	
TYPE	500	PBX set type
TN	c u	Terminal number, where **c** is the card, and **u** is the unit. PHANTOM is echoed by the switch when the specified loop is phantom.
CDEN	xx	The card density supported by the loop, where xx can be SS - single density DD - double density 4D - quadruple density
DN	yyyy	The DN must be single appearance.
CLS	UNR	Unrestricted. Phantom DNs cannot originate calls, so this option is secure.

Prompt	Response	Description
FTR	DCFW nn xxxx	DCFW = Default Call Forward nn = maximum number of digits in the DCFW DN xxxx = the CDN to which this DN forwards If this phantom DN is for a voice service, enter the Voice Messaging CDN. If this phantom DN is for a fax service, enter the Multimedia Messaging CDN. If this phantom DN is a virtual fax DN for a user, enter the Multimedia Messaging CDN.
	<Enter>	Press Enter until you reach the end of the overlay (REQ prompt).
REQ		If you are finished adding phantom DNs, enter ******** to exit. To add another DN, return to the top of the table.

Configuring dummy ACD DNs

Introduction

As an alternative to creating phantom DNs for directly dialable services, you can create a dummy ACD DN that is set up to call forward to the appropriate CDN depending on the multimedia channel type required.

Example

- For a service that requires only voice capability, forward the dummy ACD DN to the Voice Messaging CDN.
- For a service that requires fax capability, forward the dummy ACD DN to the Multimedia Messaging CDN.

To configure dummy ACD DNs

1. Load overlay 23.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	NEW	
TYPE	ACD	
CUST	xx	Customer number (0–99)
ACDN	xxxx	Enter the DN for the service.
MWC	YES or NO	Message Waiting Center. If the CallPilot server is a Network Message Service (NMS) satellite site, set to YES. Otherwise, set to NO.

Prompt	Response	Description
MAXP	1	This indicates that there are no agents in this queue and it is, therefore, a dummy queue.
NCFW	yyyy	Specify the appropriate CDN depending on multimedia channel type required (Voice Messaging CDN or Multimedia Messaging CDN).
	<Enter>	Press Enter to the end of the overlay (the REQ prompt).
REQ	****	Exits the overlay.

Provisioning user phonesets

Introduction

You must set up users' phonesets in a certain way to support CallPilot. The procedure depends on whether you are provisioning a digital phoneset or a 500 phoneset.

Required features

You must set up phonesets to support the following features:

- Call forward no answer to the appropriate CDN (voice or multimedia)

  Note: You cannot forward users' phonesets to the Speech Activated Messaging CDN since this service does not provide call answering functionality.
- Call forward busy to the appropriate CDN
- Call forward all calls to the appropriate CDN
- Message Waiting key with the appropriate CDN as the Message Center DN

Note: If you do not plan to give fax capability to the user's mailbox, use the Voice Messaging CDN. If you plan to give fax capability to the user's mailbox, then use the Multimedia Messaging CDN.

To provision digital phonesets

1. Load overlay 11.
2. For each prompt listed below, enter the response indicated in overlay 11.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	NEW or CHG	
TYPE	2317, 2008, and so on	Type of set.
TN	c u	Terminal number of the phone, where **c** is the card, and **u** is the unit.
CUST	xx	Customer number (0–99)
FDN	yyyy	Flexible call forward no answer DN. Set this to the CDN of the Voice Messaging or Multimedia Messaging CDN queue.
HUNT	zzzz	Hunt (internal). Set this to the CDN of the Voice Messaging or Multimedia Messaging CDN queue.
CLS	FNA, FBA, HTA, MWA	Call forward no answer allowed. Call forward busy allowed. Hunt allowed. Message waiting allowed.
KEY	0 SCR xxxx	Single call ringing DN, where xxxx is the user's DN.
CPND	New	Calling Party Name Display (if adding a new set).
NAME	First,Last	The name of the phoneset user.
KEY	3 MSB	Make set busy
KEY	4 TRN	Transfer

Prompt	Response	Description
KEY	5 AO3	Three-party conference. Required by the Call Sender feature.
KEY	6 CFW nn xxxx	Call forward all calls, where nn = maximum number of digits in the Call Forward DN, and xxxx is the Voice Messaging or Multimedia Messaging CDN.
KEY	8 MWK yyyy	Add a message waiting key/lamp, where yyyy is the Voice Messaging or Multimedia Messaging CDN.
	<Enter>	Press Enter to the end of the overlay (the REQ prompt).
REQ		If you are finished adding phonesets, enter ******** to exit. To add another phoneset, return to the top of the table.

To provision 500/2500 phonesets

1 Load overlay 10.

2 For each prompt listed below, enter the response indicated in overlay 10.

For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	NEW	
TYPE	500	500 phoneset
TN	c u	Terminal number of the phone, where **c** is the card, and **u** is the unit.
CUST	xx	Customer number (0–99)
DN	yyyy	Directory number
HUNT	zzzz	Hunt (internal). Set this to the CDN of the Voice Messaging or Multimedia Messaging CDN queue.
CLS	HTA, MWA, FNA, FBA, XFA, LPA, DTN	Hunt allowed. Message waiting allowed. Call forward no answer allowed. Call forward busy allowed. MWI lamp is equipped (if not equipped, users are notified of new messages by interrupted dial tone).
FTR	FDN xxxx	Flexible call forward no answer. Set this to the Voice Messaging or Multimedia Messaging CDN.
FTR	CFW yy	Call forward all calls, where yy is the maximum DN length that users can specify as the call forward DN.
	<Enter>	Press Enter to the end of the overlay (the REQ prompt).

Prompt	Response	Description
REQ		If you are finished adding phonesets, enter ******** to exit. To add another phoneset, return to the top of the table.

Configuring the route data block for Network Message Service

Introduction

If you have purchased Network Message Service (NMS) to allow a number of switches to share CallPilot (installed on only one switch), then configure the route data block. This section provides instructions for this step.

For details on additional switch configuration for NMS, refer to the "Configuring the switches" chapter in the CallPilot 1.0 *NMS Implementation and Administration Guide* (NTP 555-7101-302).

Note: Ensure that Digit Manipulation (DMI in overlay 86) is not used to insert ESN access codes at the sending switch. ESN access code insertion must be done at the receiving switch (INAC in overlay 16).

To modify the route data block

1. Load overlay 16.
2. For each prompt listed below, enter the response indicated.

   For those prompts that are not listed, you can accept the default by pressing Enter.

Prompt	Response	Description
REQ	NEW or CHG	
TYPE	RDB	Route data block
CUST	xx	Customer number (0–99)
ROUTE		Route number

Prompt	Response	Description
PNI		Customer Private Network ID of the non-local target Succession 1000 system
NCRD	Yes	Network call redirection provides the CLID display information.
TRO	Yes	Optimize trunk usage on this route.
INAC	Yes	Insert an ESN access code to incoming private network calls.
	<Enter>	Press Enter until you reach the end of the overlay (REQ prompt).
REQ	****	Exits the overlay.

Saving Succession 1000 changes

Introduction

Once you modify the switch configuration to support CallPilot, save all changes to disk.

To save the configuration

1. Load overlay 43.
2. At the next "." prompt, type **EDD** to dump the data to disk.

   Result: The system displays the data being saved. The following message appears:

   ```
   RECORD COUNT=xxxx
   DATADUMP COMPLETE
   ```

3. Return to step 2, and repeat this step two more times.

   Use a new disk each time.

ATTENTION

Do not remove the disk while the LED is lit. As long as the LED is on, the disk is still being written to.

What's next?

Continue with Chapter 4, "Configuring the CallPilot server software," on page 129.

Chapter 4

Configuring the CallPilot server software

In this chapter

Overview 130

Logging on to Windows NT on the CallPilot server 132

Logging on to the CallPilot server with CallPilot Manager 134

Running the Configuration Wizard 140

Changing pcAnywhere caller passwords 142

Overview

Introduction

The Configuration Wizard enables you to configure the CallPilot server software. You can rerun the Configuration Wizard to update or review the server configuration.

The Configuration Wizard is accessible from CallPilot Manager (a web-based user interface). This chapter describes how to

- log on to Windows NT on the CallPilot server
- log on to the CallPilot server with CallPilot Manager
- run the Configuration Wizard
- change the pcAnywhere caller passwords



CAUTION

Risk of improper configuration

You must use the Configuration Wizard to change the computer name. If you use the Windows NT method to change the computer name, it is not properly updated in the CallPilot software.

Plan your responses to the Configuration Wizard

Ensure you have planned your responses to the Configuration Wizard by completing the "Configuration Wizard worksheet" in Part 1 of the *CallPilot Installation and Configuration* binder.

Online Help for the Configuration Wizard

Each page in the Configuration Wizard contains a Help button and provides detailed instructions regarding the selection or data entry required. Click Help at any time to get additional instructions.

Recovering Configuration Wizard changes if there is a system interruption

If a system interruption prevents the Configuration Wizard from finishing or applying the configuration changes, you may be able to recover the entries you made in the Configuration Wizard prior to the system problem. If CallPilot can save a recovery file, then, when you rerun the Configuration Wizard, you are asked if you want to recover your changes. Select Yes and step through the Configuration Wizard.

Running the Configuration Wizard to detect replacement boards

When you replace MPB boards or MPC-8 cards, you must rerun the Configuration Wizard to detect and initialize the hardware. You do not need to change any data in the Configuration Wizard to perform this operation, but you do need to apply the configuration changes as instructed on the last page of the Configuration Wizard.

Logging on to Windows NT on the CallPilot server

Introduction

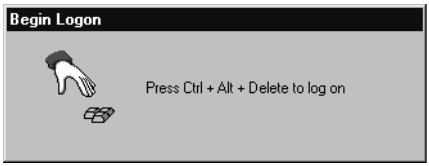
If you want to access CallPilot Manager from the web browser embedded on the CallPilot server, you must first log on to Windows NT on the CallPilot server. Alternatively, you can access CallPilot Manager from any PC that has network access to the CallPilot server.

ATTENTION

When logging on, ensure that the CAPS key is not on. The password is case-sensitive.

To log on to Windows NT on the CallPilot server

1. Ensure that the CallPilot server has started and the Windows NT logon prompt appears.



2. Press Ctrl+Alt+Delete.

   Result: The Logon Information dialog box appears.



3 Type **Administrator** as the user ID.

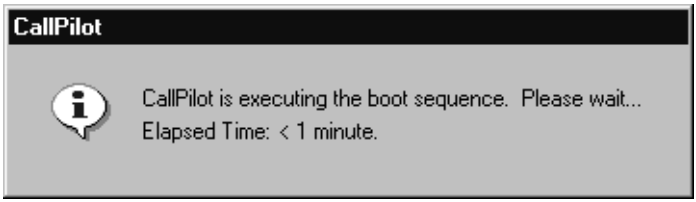
Note: You can choose to log on with a different user ID that has local administrative privileges.

4 Type the default password **abc123** (or the current Administrator password if it has been changed already).

Note: You should change all Windows NT account passwords from their default values to strong values known only to the customer. This includes the “gamroot” account used for the AR352 RAID card. CallPilot security is ultimately only as good as the passwords used.

5 Click OK.

Note: If the Configuration Wizard has previously been run on the CallPilot server, the following dialog box may appear:



Other dialog boxes may also appear that state if CallPilot is ready to accept calls. These dialog boxes are part of the CallPilot system ready indicator feature and are not applicable until you have run the Configuration Wizard.

Ignore these dialog boxes and continue with “Running the Configuration Wizard” on page 140. See “Checking that CallPilot is ready to accept calls” on page 146 for more information about the system-ready indicator dialog boxes.

Logging on to the CallPilot server with CallPilot Manager

Introduction

The Configuration Wizard is a menu item in CallPilot Manager. CallPilot Manager is the web-based CallPilot management tool, and can be accessed from any PC that has network access to the CallPilot server.

You can also access CallPilot Manager from the web browser on the CallPilot server. This may be the simplest method when installing CallPilot for the first time.

Logon process overview

The process for logging on to the CallPilot server with CallPilot Manager is the same for remote or local CallPilot servers. The logon process is completed in two stages:

1. Launch the web browser (on the CallPilot server, or on any PC that has network access to the CallPilot server), and then connect to CallPilot Manager.

   For new installations, CallPilot Manager is located on the CallPilot server. The URL syntax is

   http://*CallPilot server host name or IP address*/cpmgr/

   Example: http://sunbird/cpmgr/, where sunbird is the host name.

   If you installed CallPilot Manager on a stand-alone web server (a separate PC that functions as a web server for CallPilot), the URL syntax is http://*web server host name or IP address*/cpmgr/

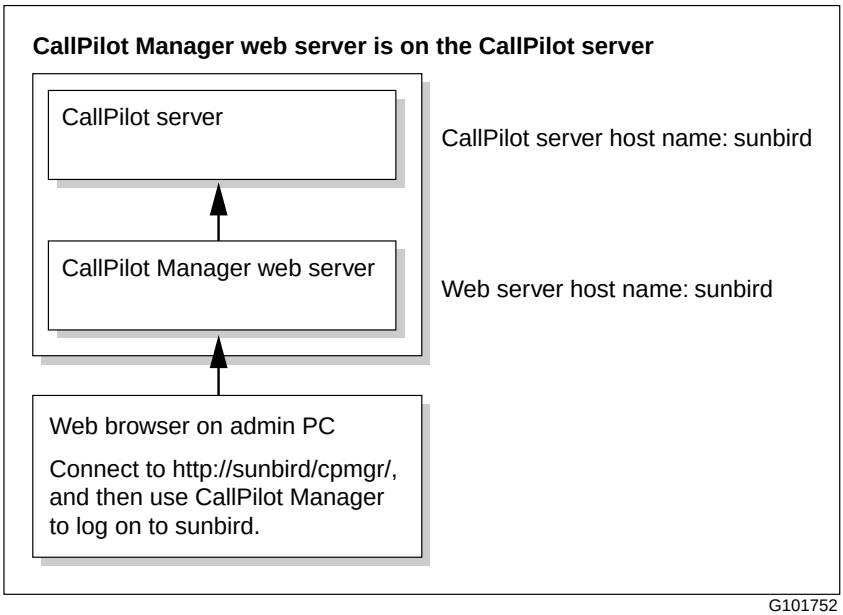
   Note: For more details, see “Relationship of the CallPilot Manager web server to the CallPilot server” on page 135.

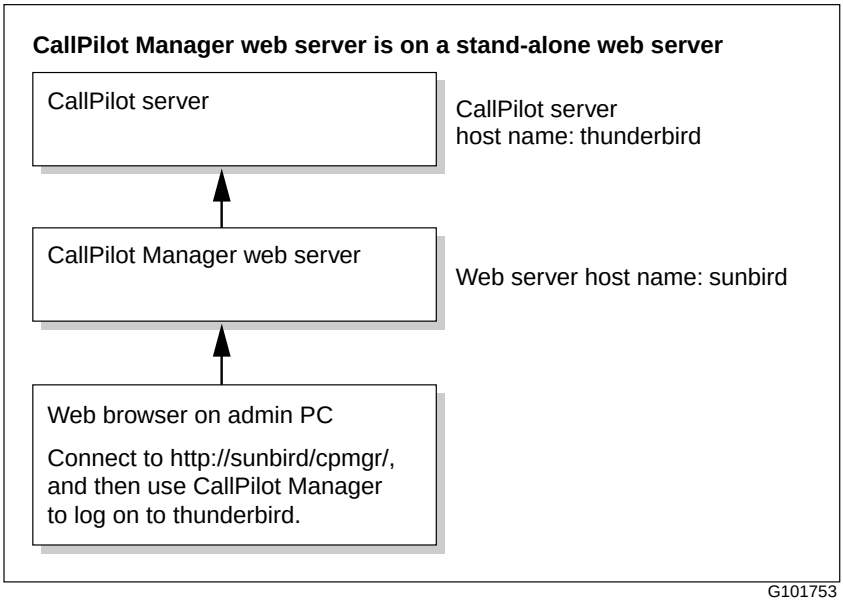
2. Log on to the CallPilot server with an administrator's mailbox number and password.

Relationship of the CallPilot Manager web server to the CallPilot server

The CallPilot Manager web server software can be installed on the CallPilot server, or on a stand-alone server. If the CallPilot Manager web server software is installed on a stand-alone server, you must know the CallPilot Manager server's host name or IP address, as well as the CallPilot server's host name or IP address.

See the following diagrams:

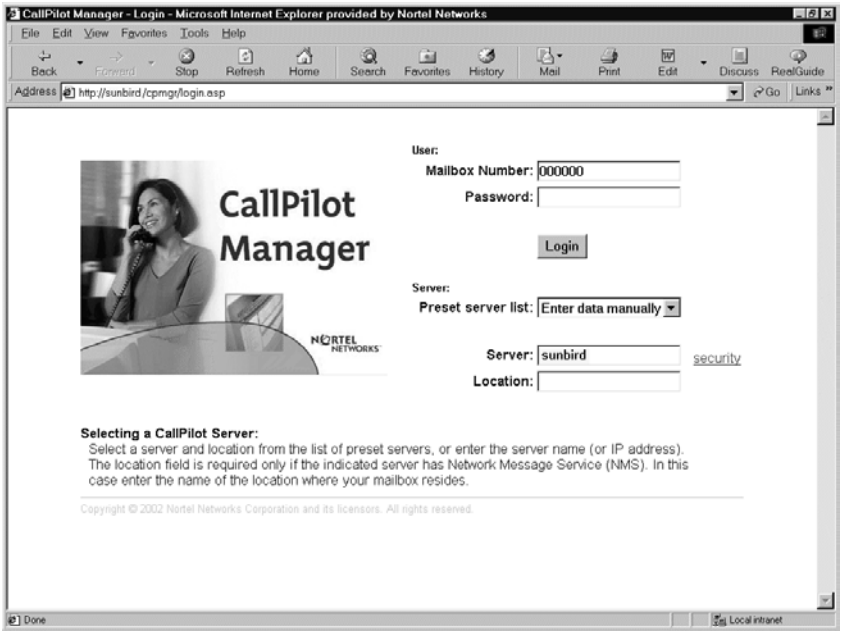



CallPilot Manager web server is on a stand-alone web server
CallPilot server
CallPilot server
host name: thunderbird
CallPilot Manager web server
Web server host name: sunbird
Web browser on admin PC
Connect to http://sunbird/cpmgr/,
and then use CallPilot Manager
to log on to thunderbird.
G101753

To log on to the CallPilot server

1 Launch the web browser on your PC or on the CallPilot server.

IF you are launching the web browser on	THEN
the CallPilot server	the CallPilot Manager login page appears automatically. Continue with step 2.
your PC	type the CallPilot Manager web server's URL in the Address or Location box of your web browser, and then press Enter. **Example:** http://sunbird/cpmgr/ When the connection is established, the CallPilot Manager - Login page appears. Continue with step 2.



Note: The URL automatically appears as http://<host name or IP address>/cpmgr/login.asp. On the CallPilot server, the URL is http://localhost/cpmgr/login.asp.

2 Type the administration mailbox number and password.

The administrator mailbox number is **000000**. The default password is **124578**.

3 Do one of the following:

- Choose a server or location from the list of preconfigured servers or locations in the Preset server list box. Or, choose the Last Server Accessed item.
- Type the CallPilot server's host name or IP address in the Server box.
- If the CallPilot server to which you are connecting has Network Message Service (NMS) installed, type the CallPilot server's host name or IP address in the Server box, and then type the name of the switch location on which the administration mailbox resides in the Location box.

4 Click Login.

Result: The main CallPilot Manager page appears.



5 Continue with “Running the Configuration Wizard” on page 140.

Running the Configuration Wizard

Introduction

This section describes how to access and run the Configuration Wizard.

Requirements

- CallPilot language CD, if you are installing, adding, or upgrading languages
- completed "Configuration Wizard worksheet" from Part 1 of the *CallPilot Installation and Configuration* binder
- CallPilot keycode and serial number

To run the Configuration Wizard

ATTENTION

For each page in the Configuration Wizard, follow the instructions on the page. Use the information you recorded in the "Configuration Wizard worksheet" in Part 1 of the *CallPilot Installation and Configuration* binder. If you need additional instructions, click Help.

If you are rerunning the Configuration Wizard, some pages may be prefilled. Some pages also contain default values. If the prefilled information does not match the information planned for this server, then update any prefilled values as required.

1. Log on to CallPilot Manager. See "Logging on to the CallPilot server with CallPilot Manager" on page 134.
2. Click the Configuration Wizard shortcut on the main CallPilot Manager page, or select Tools → Configuration Wizard.

   Result: The Welcome page of the Configuration Wizard appears.

3 Click Next to go to the next page.

4 Read the instructions carefully on each page. Click Help on the Configuration Wizard page if you need additional instructions. When you are finished with a page, click Next to continue.

5 When you reach the end of the Configuration Wizard, click Finish to save the Configuration Wizard changes, or click Cancel to discard any changes. No changes are implemented unless you click Finish.

Result: The Configuration Wizard requires up to an hour to apply changes, depending on the number of languages you are installing or updating, and the size of the system. When CallPilot completes the configuration changes, you are prompted to restart the server.

6 Restart the server.

Note: For instructions, refer to Part 1 of the *CallPilot Installation and Configuration* binder.

Result: The server restarts and the configuration changes are in effect.

What's next?

Continue with "Changing pcAnywhere caller passwords" on page 142.

Changing pcAnywhere caller passwords

Introduction

With pcAnywhere, you can perform advanced administrative tasks on the server from a remote PC. You can control the server as though you were directly connected to the server.

One licensed copy of pcAnywhere is provided for the server on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM. pcAnywhere is installed and configured on the server at the factory.

To install pcAnywhere on another PC, you must purchase a separate license. For instructions on how to install and configure pcAnywhere on another PC, refer to the *CallPilot Administrator's Guide* (NTP 555-7101-301).

To simplify the remote logon process, Nortel Networks recommends that you match the pcAnywhere caller password for CallPilotDist to the Nortel Networks user account password for NGenDist. Therefore, Nortel Networks recommends that you change the pcAnywhere caller CallPilotDist password and the Windows NT NGenDist account password at the same time.

To change pcAnywhere caller passwords

1. Stop the pcAnywhere session, if one is running.
2. Click Start → Programs → Symantec pcAnywhere.

   Result: The pcAnywhere Manager opens.
3. Right-click the CallPilot icon, and then choose Properties from the pop-up menu.

   Result: The "pcAnywhere Host Properties: CallPilot" dialog box appears.
4. Click the Callers tab.
5. Right-click the CallPilotDist icon, and then choose Properties from the pop-up menu.

6 In the Password box, type a new CallPilotDist password.

7 In the Confirm Password box, type the CallPilotDist password again.

8 Click Apply.

9 Click OK.

10 Click OK to return to the main pcAnywhere Manager window.

11 Double-click the CallPilot icon to restart the pcAnywhere session.

What's next?

Continue with Chapter 5, "Testing the CallPilot installation," on page 145.

Chapter 5

Testing the CallPilot installation

In this chapter

Checking that CallPilot is ready to accept calls 146

Testing the connection to the ELAN 152

Testing the connection to the CLAN 153

Verifying that CallPilot can receive calls 154

Testing the CallPilot software and channels 155

Checking that CallPilot is ready to accept calls

ATTENTION

CallPilot is not ready to accept calls until the CallPilot services are fully operational. CallPilot services require approximately 10 minutes after starting up the CallPilot server to become fully operational.

Introduction

CallPilot uses various system-ready indicators to indicate when it is ready to accept calls, including

- displaying messages in dialog boxes on the CallPilot server monitor after logon

  It also displays a status icon in the top right corner of the CallPilot Manager window.
- generating events that can be viewed in the Event Browser or Alarm Monitor in CallPilot Manager
- displaying status using the hex display (applies only to the 201i server)

The system-ready indicators described in this section appear when you restart the server, and also when CallPilot is running if a change in system readiness status occurs.

The system-ready indicators appear only if the Configuration Wizard has previously been run on the server. The CallPilot server is not ready to accept calls if the Configuration Wizard has not been run.

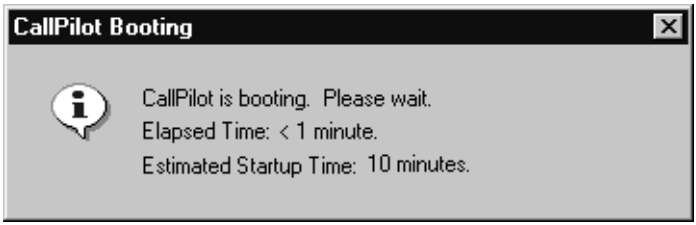
Note: It is possible that the Configuration Wizard was run at the factory or distributor's site before it was shipped to the customer site. If this is the case, then system-ready indicators are visible when the CallPilot server is started the first time at the customer site.

Checking system readiness by observing the dialog box messages

A system-ready indicator dialog box appears on the screen any time there is a change in system readiness status. You can close these dialog boxes at any time. If the status changes, a dialog box appears again.

At all times, a system-ready indicator icon appears in the task bar in the bottom right corner of the screen. To view the system-ready indicator dialog box after you close it, double-click the system-ready indicator icon. To view the current status (boot, pass, warn, or fail), place the mouse pointer over the system-ready indicator icon. Help text (roll-over text), which states the current status, appears after a few seconds.

Immediately after you log on to the server, the following dialog box appears on the screen if CallPilot services are not yet fully operational. It can take approximately 1 minute after logon for this dialog box to appear:



The Elapsed Time indicates how much time has passed since the CallPilot application began its boot sequence.

Note: This dialog box may not appear if enough time has passed between starting up the CallPilot server and logging on for CallPilot services to become fully operational. It takes approximately 10 minutes after starting up the CallPilot server for CallPilot services to become fully operational.

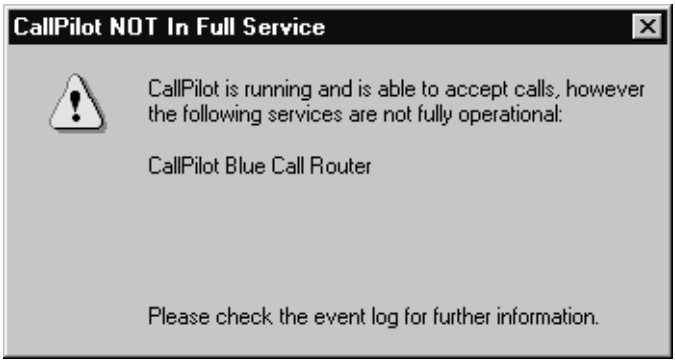
If the CallPilot start sequence is passed successfully (that is, CallPilot services are fully operational), the following dialog box appears:



Click OK to close the dialog box.

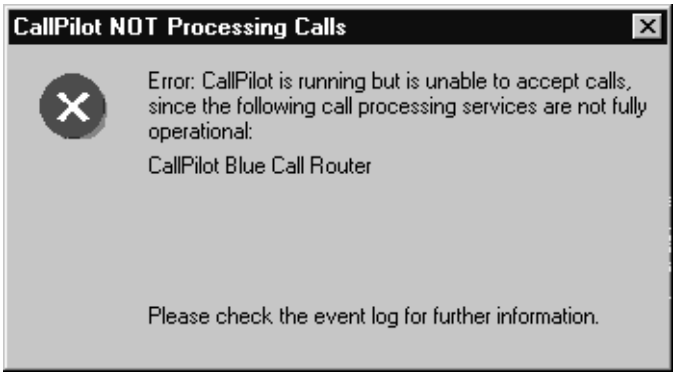
If there are errors, one of the following two dialog boxes appears (depending on the severity of the problem):

Warning message



Close the dialog box by clicking the X in the upper right corner. Check the Event Browser or Alarm Monitor in CallPilot Manager for more details. For instructions, refer to the CallPilot Manager online Help.

Error message



Close the dialog box by clicking the X in the upper right corner. Check the Event Browser or Alarm Monitor in CallPilot Manager for more details. For instructions, refer to the CallPilot Manager online Help.

Alternative methods for verifying that CallPilot is ready to accept calls

View events in CallPilot Manager or in the Windows NT Event Viewer on the server

The Pass, Warning, and Error system-ready indicator messages appear as events in the Event Browser and Alarm Monitor in CallPilot Manager, and in the Windows NT Event Viewer on the server.

By default

- the Event Browser and Alarm Monitor show only the latest 100 events

  It is possible for the system-ready indicator events to be removed from the Event Browser and Alarm Monitor windows. You can change the default.

- the Event Browser lists only Critical events

  You can change the Filter Criteria so that Major, Minor, and Information events are listed as well.

For detailed instructions on viewing events, refer to the CallPilot Manager online Help.

Observe the HEX display (for the 201i server only)

The HEX display on the 201i server faceplate displays the following messages:

Note: The DOWN, OK, MIN, MAJ, CRI, and "???" messages can appear regardless of whether the Configuration Wizard has been run. Some MIN, MAJ, and CRI events may appear because the server has not been configured. These events may be resolved after running the Configuration Wizard. The BOOT, PASS, WARN, and FAIL messages are system-ready indicator messages; they do not appear if the Configuration Wizard has not been run.

IPE CallPilot server HEX display	Description
DOWN	The operating system is starting.
OK	The operating system start sequence has passed.
BOOT	CallPilot is starting and is not yet fully operational. Please wait.
PASS	CallPilot is fully operational and ready to accept calls.
WARN	CallPilot is ready to accept calls; however, some services failed the start sequence. Check the event log for further information.
FAIL	CallPilot failed the start sequence and cannot accept calls. Check the event log for further information.
MIN	A minor alarm has occurred. Check the event log for further information.

IPE CallPilot server HEX display	Description
MAJ	A major alarm has occurred. Check the event log for further information.
CRI	A critical alarm has occurred. Check the event log for further information.
???	This indicates that an alarm of unknown severity occurred. This error should not occur on a properly installed system. The severity of this event is treated as higher-than-critical.

Testing the connection to the ELAN

Introduction

This procedure tests the network connection between the server and the Succession 1000 system over the ELAN.

To test the connection to the ELAN

1 Click Start → Programs → Command Prompt.

Result: The Command Prompt window appears.

2 Type **ping** followed by the ELAN IP address for the Succession 1000 system, and then press Enter.

Note: This is the ELAN IP address specified for the Succession 1000 system in Chapter 3, “To configure the IP addresses and enable the Ethernet interface,” on page 94. Refer to the Configuration Wizard worksheets that you completed in Part 1 of the *CallPilot Installation and Configuration* binder for the IP address.

Example: ping 255.255.255.255

Result: The display should indicate a successful ping. If the ping is not successful, check the connection from the CallPilot server’s ELAN card to the Succession 1000 system.

3 If the CallPilot server is also connected to a CLAN, then continue with “Testing the connection to the CLAN” on page 153.

If the CallPilot server is not connected to a CLAN, then type **exit** and press Enter to close the Command Prompt window. Then continue with “Verifying that CallPilot can receive calls” on page 154.

Testing the connection to the CLAN

Introduction

This procedure tests the network connection between the server and the Customer LAN (CLAN). This applies only if CallPilot has a CLAN card and is connected to a CLAN.

To test the connection to the CLAN

1. Click Start → Programs → Command Prompt.

   Result: The Command Prompt window appears.

2. Type **ping** followed by the CLAN IP address of another PC on the CLAN, and then press Enter.

   Example: ping 255.255.255.255

   Result: The display should indicate a successful ping.

3. Type **exit**, and then press Enter to close the Command Prompt window.

Verifying that CallPilot can receive calls

Introduction

The following procedure is a basic test to verify that CallPilot is able to receive calls from the Succession 1000 system and answer those calls. A more thorough test that requires the use of CallPilot Manager is described in “Testing the CallPilot software and channels” on page 155.

To verify that CallPilot can receive calls

1. Ensure that CallPilot services are fully operational before you begin.

   For instructions, see “Checking that CallPilot is ready to accept calls” on page 146.

2. Dial the main Voice Messaging DN that you defined in the Configuration Wizard.

3. Listen for a response from CallPilot (for example, “CallPilot from Nortel Networks ...”), and then hang up.

   If you do not get a response, then do the following:

   a. Check the cabling between the server and the Succession 1000 system.

   b. Verify that the Succession 1000 system is processing calls to other extensions.

   c. Refer to Part 5 of the *CallPilot Installation and Configuration* binder for troubleshooting instructions.

What’s next?

Continue with “Testing the CallPilot software and channels” on page 155.

Testing the CallPilot software and channels

Introduction

This section provides a series of tests of the CallPilot installation, including verifying that

- you can leave a message
- you can retrieve a message
- each call channel and multimedia (DSP) channel is functioning properly

Before you begin

- Ensure that you have configured the Succession 1000 system and CallPilot server, as described in this guide.
- Obtain the ACD DN for CallPilot.
- Identify a phoneset DN that exists on the Succession 1000 system that you can use for testing.
- Have a pencil and paper ready to record the results of the tests.

To verify that you can leave a message

Complete the following procedures to perform this test:

- “To add a user for testing purposes” on page 156
- “To configure the Voice Messaging DN” on page 157
- “To leave a message” on page 157

To add a user for testing purposes

1 Log on to Windows NT on the CallPilot server.

For instructions, see “Logging on to Windows NT on the CallPilot server” on page 132.

Note: Although you can access CallPilot Manager from any PC that has network access to the CallPilot server, later tests require that you be logged on to the CallPilot server.

2 Log on to CallPilot Manager.

For instructions, see “Logging on to the CallPilot server with CallPilot Manager” on page 134.

3 Click Users → Add User.

Result: The Express Add page appears.

4 Type the required information.

Each required field is marked with an asterisk (*). Accept the default values for other fields.

For example, create a user named TEST USER.

ATTENTION

The tests in this section use the mailbox number 8050 as an example. Ensure that you specify a DN that is defined on the Succession 1000 system.

5 Click Advanced User Add.

Result: The Advanced User Add page appears, and the information you have already entered appears.

6 Scroll down to the Security section of the page and specify a mailbox password.

Record the password. Leave all other fields at their default values.

7 Click Express Add.

Result: The Express Add page appears.

8 Click Add.

Result: CallPilot Manager displays a summary of the user just added.

To configure the Voice Messaging DN

Note: If you have already configured a Voice Messaging CDN in the Configuration Wizard, then you can skip this procedure. If you are not sure, continue with this procedure to verify that a Voice Messaging CDN is present, or to configure one if necessary.

1 Click System → Service Directory Number.

Result: The Service Directory Number page appears.

2 Click New.

Result: The SDN Detail page appears.

3 In the Service DN box, type the primary Voice Messaging DN for CallPilot.

Note: If there are no voice channels installed on CallPilot, then use the Fax or Speech Recognition primary DN as the Voice Messaging DN for these tests. You can still use the Voice Messaging application as described in this procedure.

4 In the Application Name box, select Voice Messaging.

5 In the Media Type box, select Voice.

Note: If there are no voice channels installed on CallPilot, then select Fax or Speech Recognition based on the DN that you specified in step 3.

6 Click Save.

To leave a message

1 From any active phoneset that is connected to the Succession 1000 system, dial the Voice Messaging Service DN that you have just created.

Result: CallPilot plays the following prompt: “Nortel CallPilot. Mailbox?”

Note: If CallPilot does not answer the call or you do not hear a prompt, then check that the call channels and multimedia channels are in Idle state, as described in “Verifying that each call channel and multimedia channel is functioning properly” on page 160.

2 Enter the mailbox number followed by number sign (#) (for example, 8050#).

Result: CallPilot plays the following prompt: *Password?*

3 Enter the mailbox password **135246#**.

Result: CallPilot plays the following prompt: *The temporary password assigned by your administrator must be changed. To access your mailbox, please press 84 and change your password.*

4 Press **84**.

Result: CallPilot plays the following prompt: *Password change. To authorize the change, please enter your old password followed by number sign.*

5 Enter **135246#**.

Result: CallPilot plays the following prompt: *Please enter your new password followed by number sign.*

6 Enter a new mailbox password followed by number sign (#) (for example, 805011#).

Result: CallPilot plays the following prompt: *Please enter your new password again followed by number sign.*

7 Enter the new mailbox password again to confirm (for example, 805011#).

Result: CallPilot plays the following prompt: *Your password has been changed. Your mailbox is empty.*

8 Press **75** to compose a message.

Result: CallPilot plays the following prompt: *Compose…*

9 Enter the mailbox number, followed by number sign (#) twice (for example, 8050##).

Result: CallPilot plays the following prompt: *To begin recording, Press 5. To end recording, press number sign.*

10 Press **5** to record a message.

11 Record a message, and then press number sign (#) to stop.

Result: CallPilot plays the following prompt: *Recording Stopped*. There is a brief pause, followed by the prompt: *To review the message, press 2, to send it, press 79…*

12 Press **79** to send the message.

Result: CallPilot plays the following prompt: *Message sent and deleted.*

13 Press **83**, and then hang up the phone.

14 Verify that the Message Waiting Indicator (MWI) is on.

To verify that you can retrieve a message

1 Pick up the telephone handset and dial the same Voice Messaging Service DN again.

2 When prompted, enter the mailbox number where the message was left (for example, 8050#).

Result: CallPilot plays the following prompt: *Password?*

3 Enter the mailbox password (for example, 805011#).

Result: CallPilot plays the following prompt: *You have one new message. Message one. New. From…* .

ATTENTION

If you do not hear the exact message, *You have one new message…*, this indicates that the wrong prompts have been installed or that CallPilot did not install properly.

If you did not hear the correct message, contact your Nortel Networks customer support representative.

4 Press **2** to play the message, and then listen to it.

5 Press **76** to delete the message.

Result: CallPilot plays the following prompt: *Message 1 deleted.*

ATTENTION

If you do not hear the exact message, *Message 1 deleted*, this indicates that the wrong prompts have been installed or that CallPilot did not install properly.

If you do not hear the correct message, contact your Nortel Networks customer support representative.

6 Press **83** and then hang up the phone.

Verifying that each call channel and multimedia channel is functioning properly

These tests verify that the call channels and multimedia (DSP) channels are functioning properly.

The call channel is the channel that carries the call signal from the Succession 1000 system to CallPilot. The multimedia channel is the CallPilot channel that processes the call and provides voice, fax, or speech recognition capability.

These tests consist of the following procedures:

- "To test call channels and voice channels" on page 161 (Skip this procedure if you do not have voice channels installed.)
- "To test call channels and fax channels" on page 163 (Skip this procedure if you do not have fax channels installed.)
- "To test call channels and speech recognition channels" on page 165 (Skip this procedure if you do not have speech recognition channels installed.)
- "To restore the SDN Table and put all channels back in service" on page 167

Note: These tests require that you access the Channel Monitor, Multimedia Monitor, and Service Directory Number pages in CallPilot Manager. If you need additional instructions for these CallPilot Manager pages, refer to the CallPilot Manager online Help, or to the *CallPilot Administrator's Guide* (NTP 555-7101-301). You must also access the System Monitor utility. The System Monitor utility is described in the chapter "Using CallPilot system utilities" in Part 5 of the *CallPilot Installation and Configuration* binder.

To test call channels and voice channels

Note: If CallPilot has no voice channels, go to "To test call channels and fax channels" on page 163. If CallPilot also has no fax channels, go to "To test call channels and speech recognition channels" on page 165.

1. In CallPilot Manager, click System → Service Directory Number.

   Result: The Service Directory Number page appears.

2. Ensure that the Voice Messaging Service DN is set to the ACD DN.

   Note: If the Voice Messaging Service DN is not set to the ACD DN, then select the defined Service DN and click File → Properties. Make the required changes, and then click Save.

3. In the Application Name box, ensure that Voice Messaging is selected.

4. In the Media Type box, ensure that Voice is selected.

5. Click Maintenance → Multimedia Monitor.

   Result: The Multimedia Monitor appears.

6. Select and start a maximum of 8 voice channels for testing.

   Note: Nortel Networks recommends that you test a maximum of 8 voice channels at one time. For example, if you have a 96-channel system, start only 8 voice channels. When those 8 voice channels are tested, stop them and start another set of voice channels.

7. Stop all fax and speech recognition channels, if these channels are present.

8. Verify that all voice channels are in Idle state.

9. In CallPilot Manager, click Maintenance → Channel Monitor.

   Result: The Channel Monitor appears.

10 Select the whole system and stop all channels.

11 Select and start the same number of call channels as voice channels that you started.

Example: If you have started 8 voice channels, then start 8 call channels.

12 On the CallPilot server desktop, click Start → Programs → CallPilot → System Utilities → System Monitor.

Result: The CallPilot System Monitor window appears. By default, the Channel Monitor tab appears on top.

13 Observe the System Monitor window and verify that all the required multimedia (DSP) and call channels are in Idle state, and that all other channels are Off Duty (out of service).

14 Use a telephone to dial the service DN that you entered in the SDN table for Voice Messaging.

15 Verify that CallPilot answers the call and that the CallPilot greeting plays.

16 Observe the System Monitor and record which call channel and which voice channel changes to Active state.

17 Hang up the telephone.

18 Repeat steps 14 to 17 until all the selected voice and call channels are tested.

Note: If the calls are not cycling through all voice and call channels, then stop the tested voice and call channels. This forces the next call to go to the untested voice and call channels. When you stop the channels, there may be a short delay before the channels go to Off Duty state. This is because stopped channels go to a 1 minute standby mode so they are ready for the next call.

19 Stop the voice and call channels that were tested.

20 Repeat steps 5 to 19 until all voice channels and the same number of call channels are tested.

To test call channels and fax channels

Note: If CallPilot has no fax channels, go to "To test call channels and speech recognition channels" on page 165.

1 In CallPilot Manager, click System → Service Directory Number.

Result: The Service Directory Number page appears.

2 In the Service Directory Number page, click the Voice Messaging Service DN that you have been using for testing.

Result: The SDN Detail page appears showing the properties of the Voice Messaging Service DN.

3 In the Media Type box, select Fax.

Note: You can leave the Application Name as Voice Messaging.

4 Click Save.

5 Click Maintenance → Multimedia Monitor.

Result: The Multimedia Monitor appears.

6 In the Multimedia Monitor page, select and start a maximum of 8 fax channels for testing.

Note: Nortel Networks recommends that you test a maximum of 8 fax channels at one time. For example, if you have a 96-channel system, start only 8 fax channels. When those 8 fax channels are tested, stop them and start another set of fax channels.

7 Stop all voice and speech recognition channels, if these channels are present.

8 Verify that all fax channels are in Idle state, and leave the Multimedia Monitor page open so that you can observe when channels change to Active state.

9 In CallPilot Manager, click Maintenance → Channel Monitor.

Result: The Channel Monitor appears.

10 Select the whole system and stop all channels.

11 Select and start the same number of call channels as fax channels that you started.

Example: If you have started 8 fax channels, then start 8 call channels.

Note: Ensure that you select and start call channels that have not already been tested (for example, as part of the voice channel test).

12 On the CallPilot server desktop, click Start → Programs → CallPilot → System Utilities → System Monitor.

Result: The CallPilot System Monitor window appears. By default, the Channel Monitor tab appears on top.

13 Observe the System Monitor window and verify that all the required multimedia (DSP) and call channels are in Idle state, and that all other channels are Off Duty (out of service).

14 Use a telephone to dial the service DN that you entered in the SDN table.

15 Verify that CallPilot answers the call and that the CallPilot greeting plays.

16 Observe the System Monitor and record which call channel and which fax channel changes to Active state.

17 Hang up the phone.

18 Repeat steps 14 to 17 until all the selected fax and call channels are tested.

Note: If the calls are not cycling through all fax and call channels, then stop the tested fax and call channels. This forces the next call to go to the untested fax and call channels. When you stop the channels, there may be a short delay before the channels go to Off Duty state. This is because stopped channels go to a 1 minute standby mode so they are ready for the next call.

19 Stop the fax and call channels that were tested.

20 Repeat steps 5 to 19 until all fax channels and the same number of call channels are tested.

To test call channels and speech recognition channels

1. In CallPilot Manager, click System → Service Directory Number.

   Result: The Service Directory Number page appears.

2. In the Service Directory Number page, click the Voice Messaging Service DN that you have been using for testing.

   Result: The SDN Detail page appears showing the properties of the Voice Messaging Service DN.

3. In the Media Type box, select Speech Recognition.

   Note: You can leave the Application Name as Voice Messaging.

4. Click Save.

5. Click Maintenance → Multimedia Monitor.

   Result: The Multimedia Monitor appears.

6. In the Multimedia Monitor page, select and start a maximum of 8 speech recognition channels for testing.

   Note: Nortel Networks recommends that you test a maximum of 8 speech recognition channels at one time. For example, if you have a 96-channel system, start only 8 speech recognition channels. When those 8 channels are tested, stop them and start another set of speech recognition channels.

7. Stop all fax and voice channels, if these channels are present.

8. Verify that all speech recognition channels are in Idle state, and leave the Multimedia Monitor page open so that you can observe when channels change to Active state.

9. In CallPilot Manager, click Maintenance → Channel Monitor.

   Result: The Channel Monitor appears.

10. Select the whole system and stop all channels.

11 Select and start the same number of call channels as speech recognition channels that you have started.

Example: If you started 8 speech recognition channels, then start 8 call channels.

Note: Ensure you select and start call channels that have not already been tested (for example, as part of the voice or fax channel test).

12 On the CallPilot server desktop, click Start → Programs → CallPilot → System Utilities → System Monitor.

Result: The CallPilot System Monitor window appears. By default, the Channel Monitor tab appears on top.

13 Observe the System Monitor window and verify that all the required multimedia (DSP) and call channels are in Idle state, and that all other channels are Off Duty (out of service).

14 Use a telephone to dial the service DN that you entered in the SDN table.

15 Verify that CallPilot answers the call and that the CallPilot greeting plays.

16 Observe the System Monitor and record which call channel (on the Channel Monitor page) and which speech recognition channel (on the Multimedia Monitor page) changes to Active state.

17 Hang up the phone.

18 Repeat steps 14 to 17 until all the selected speech recognition and call channels are tested.

Note: If the calls are not cycling through all speech recognition and call channels, then stop the tested speech recognition and call channels. This forces the next call to go to the untested speech recognition and call channels. When you stop the channels, there may be a short delay before the channels go to Off Duty state. This is because stopped channels go to a 1 minute standby mode so they are ready for the next call.

19 Stop the speech recognition and call channels that were tested.

20 Repeat steps 5 to 19 until all speech recognition channels and the same number of call channels are tested.

To restore the SDN Table and put all channels back in service

1. In CallPilot Manager, click System → Service Directory Number.

   Result: The Service Directory Number page appears.

2. In the Service Directory Number page, select the check box for the Voice Messaging Service DN that you have been using for testing.

3. Click Delete Selected.

   Result: The Service DN is deleted.

   Note: If you are ready to begin CallPilot administration, you can choose to keep this Service DN. However, ensure that the Service DN is configured as required for normal operation. For example, do not leave the Service DN set to the ACD DN.

4. In CallPilot Manager, click Maintenance → Channel Monitor.

   Result: The Channel Monitor appears.

5. In the Channel Monitor page, select the whole system and start all channels.

6. Verify that all call channels are in Idle state.

7. Click Maintenance → Multimedia Monitor.

   Result: The Multimedia Monitor appears.

8. In the Multimedia Monitor page, select the whole system and start all channels.

9. Verify that all multimedia channels are in Idle state.

   Result: The CallPilot tests are completed.

What's next

Once your testing indicates that the server upgrade, new installation/ configuration, platform migration, or system rebuild is successful, perform a full system backup. Refer to Chapter 8, "Backing up and restoring CallPilot information," in the *CallPilot Administrator's Guide* (NTP 555-7101-301) for more information.

Index

Numerics

1001rp server, MGate cabling diagrams 72, 73, 74, 76
1002rp server, MGate cabling diagrams 72, 73, 74, 76
201i server, network diagram 21
2500 phonesets, configuring 124–125
500 phonesets, configuring 124–125
702t server, MGate cabling diagrams 72, 73, 74, 75
703t server, MGate cabling diagram 79

A

ACD
  agent queue, configuring 104–105
  agents 32
  agents, configuring 106
  description 32
Automatic Call Distribution *See* ACD
ACD DN
  creating default 110–111
  description 110
  dummy, configuring 119–120
  usage example 40
AML message tracing 91

B

board replacement, detecting in software 131

C

call channels, verifying operation 161–162, 163–164, 165–166
Call Forward by Call Type, configuring 103
call queuing, description 33
call receipt, verifying 154
call routing
  description 33
  diagram 39
  examples 39–41
Call Server, description 25
CallPilot
  services, verifying operation 146–151
    dialog boxes 147–149
    events 149–150
    HEX display (IPE server) 150
  software, testing 155–167
    call channels, verifying operation 161–162, 163–164, 165–166
    channels
      starting 167
      verifying operation 160–166
    fax channels, verifying operation 163–164
    message
      recording 157–159
      retrieving 159–160
    SDN table, restoring 167
    speech recognition channels, verifying operation 165–166
    user, adding 156–157
    voice channels, verifying operation 161–162

Voice Messaging DN, adding 157
CallPilot configuration for Symposium Call Center Server 16
CallPilot Manager
and CallPilot, logging on 134–139
viewing events 149–150
web server and CallPilot 135, 136
CallPilot server, logging on 134–139
card slot numbering (logical)
Media Gateway 28–29
Media Gateway Expansion 28–29
card slots and CallPilot
Media Gateway 27
Media Gateway Expansion 27
card slots, enabling 109
CDN
control mode 33
default mode 33
description 32
queue 33
queue, configuring 112–113
channels
starting 167
testing 155–167
verifying operation 160–166
checklist
installation and configuration 13–15
Succession 1000 system configuration 83–86
CLAN connection, testing 153
configuration checklist 13–15
Configuration Wizard
board replacement, detecting 131
online Help 131
overview 130–131
recovering changes 131
running 140–141
worksheet 130
configuring
CDNs for messaging services 112–113
channels as ACD agents 106–108
phantom DNs 114–118
Succession 1000 system 83–86
connection test
CLAN 153
ELAN 152
Control Directory Number *See* CDN 32
customer data block, defining CallPilot 98–102
customer number 87

D

desktop client PCs 24
diagrams
ACD DN usage 40
call routing 39
CallPilot Manager web server and CallPilot 135, 136
MGate cable connection, securing 77, 80
MPB16-4 and MGate card cabling 70–76
MPB96 and MGate card cabling 79
network
201i server 21
rackmount server 22
tower server 22
phantom DN usage 40
Succession 1000 system
Call Server 25
Media Gateway 26
Media Gateway Expansion 26
triple DS30X cable (NTRH2014) 69
Digit Manipulation 126
digital phonesets, configuring 122–123
DIP switches, MGate card 59–60
DS30X cables 52, 53
connecting
MPB16-4 boards 76–77
MPB96 board 79
dual (NTRH2013) 68
MPB16-4 boards 68
MPB96 board 69
single (NTRH2012) 68
triple (NTRH2014) 69
dummy ACD DN, configuring 119–120

E

ELAN
connection, testing 152
provisioning 88–90
Embedded LAN *See* ELAN
Equipment LAN *See* ELAN
Ethernet
connection 88
interface, configuring 93–97
subnet mask 95

F

faulty MGate card, impact 52
fax channels, verifying operation 163–164

I

inbound SDN 38
installation checklist 13–15
IP addresses
changing after CallPilot install 93
configuring 94–97

L

language support, multiple 114
LED indicators, MGate card
location 51
states 51
logging on
to CallPilot server 134–139
to Windows NT 132–133

M

Media Gateway
card slot numbering (logical) 28–29
card slots 27, 58
covers, removing 54–55
description 26
front bezel, replacing 57
inside front cover, replacing 56
Media Gateway Expansion
card slot numbering (logical) 28–29
card slots 27, 58
covers, removing 54–55
description 26
front bezel, replacing 57
inside front cover, replacing 56
message
recording 157–159
retrieving 159–160
Message Register
defining 91
parameter description 91
messaging service CDNs, configuring 112–113
MGate cabling diagrams
1001rp server 72, 73, 74, 76
1002rp server 72, 73, 74, 76
702t server 72, 73, 74, 75
703t 79
MGate card
and Media Gateway card slots 27
and Media Gateway Expansion card slots 27
and MPB16-4 boards, connecting 70–76
and MPB96 boards, connecting 79
channels, number 50
description 23, 50
DIP switches 59–60
DS30X cables
connecting
MPB16-4 boards 76–77
MPB96 board 79
description 52, 53
faulty 52
installing 60–63
LED indicators 51
LED states 51
location in switch, identifying 71

replacing 64–65
MGCR *See* Message Register
modem 24
MPB boards, description 23
MPB16-4 boards
and MGate cards, connecting 70–76
DS30X cables 68
location, identifying 71
MPB96 board
and MGate cards, connecting 79
DS30X cable 69
MPC-8 card 24
MPUs
and channel types 42
description 42
multimedia channels
acquisition from ACD queue 44–45
caller acquisition, description 44–45
description 42
types 42
verifying operation 160–166
Multimedia Processing Units *See* MPUs

N

Network Message Service
and route data block, configuring 126–127
network setup, Succession 1000 system 23
NMS *See* Network Message Service
NTRH2012, single DS30X cable 68
NTRH2013, dual DS30X cable 68
NTRH2014, triple DS30X cable 69

O

outbound SDN 38
overlays, working with 86

P

password, pcAnywhere 142–143
pcAnywhere caller passwords, changing 142–143
PCs, desktop clients 24
phantom DN
and networking services 36
configuring 114–118
creating 35
description 35
forwarding to a CDN queue 35
services requiring 35
usage example 40
phantom loops, verifying 115–116
phantom superloop, configuring 116
phonesets
provisioning 121–125
2500 phonesets 124–125
500 phonesets 124–125
digital phonesets 122–123
required features 121
users and fax capabilities 114
ping command, using 152, 153
position IDs 106

R

rackmount server, network diagram 22
route data block and Network Message Service, configuring 126–127

S

Service Directory Number *See* SDNs
SDN table
overview 37
restoring 167
what it controls 37
SDNs
inbound 38
outbound 38

types 38
Service Directory Numbers *See* SDNs
speech recognition channels, verifying operation 165–166
subnet mask 95
Succession 1000 system
and CLAN 93
Call Server, description 25
configuration
for CallPilot 16
for Symposium Call Center Server 16
configuration checklist 83–86
configuration, saving 128
hardware requirements 82
Media Gateway
covers, removing 54–55
description 26
front bezel, replacing 57
inside front cover, replacing 56
Media Gateway Expansion
covers, removing 54–55
description 26
front bezel, replacing 57
inside front cover, replacing 56
network setup 23
single CPU 93
software requirements 82
Symposium Voice Services Support feature 16–17
ACD agent requirements 104
system-ready indicators 147–149

T

terminal numbers *See* TNs
testing the CallPilot system
call channels, verifying operation 161–162, 163–164, 165–166
channels
starting 167
verifying operation 160–166
fax channels, verifying operation 163–164
message
recording 157–159
retrieving 159–160
SDN table, restoring 167
speech recognition channels, verifying operation 165–166
user, adding 156–157
voice channels, verifying operation 161–162
Voice Messaging DN 157
TNs 106
tower server, network diagram 22

U

user, adding 156–157

V

verifying CallPilot service operation 146–151
dialog boxes 147–149
events 149–150
HEX display (IPE server) 150
virtual fax DNs 114
voice channels, verifying operation 161–162
Voice Messaging DN, adding 157

W

Windows NT events, viewing 149–150

X

X21 PEPs, CallPilot requirements 82

CallPilot

Installation and Configuration
Part 3: Succession 1000 System and CallPilot Server Configuration

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