# Avaya™ Interchange

## Release 5.4/Intuity™ Interchange R5.3 Adding an Octel 100 System That Uses Octel Analog Networking

Issue 1
January 2002

**Notice**
Every effort was made to ensure that the information in this book was complete and accurate at the time of printing. However, information is subject to change.

**Avaya Web Page**
The World Wide Web home page for Avaya is http://www.avaya.com

**Preventing Toll Fraud**
Toll Fraud is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or working on your company's behalf). Be aware that there is a risk of toll fraud associated with your system and that, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

**Avaya Fraud Intervention**
If you s*uspect that you are being victimized* by toll fraud and you need technical assistance or support, call the Technical Service Center's Toll Fraud Intervention Hotline at 1.800.643.2353.

**Providing Telecommunications Security**
Telecommunications security of voice, data, and/or video communications is the prevention of any type of intrusion to, that is, either unauthorized or malicious access to or use of, your company's telecommunications equipment by some party.

Your company's "telecommunications equipment" includes both this Avaya product and any other voice/data/video equipment that could be accessed via this Avaya product (that is, "networked equipment").

An "outside party" is anyone who is not a corporate employee, agent, subcontractor, o ra person working on your company's behalf. Whereas, a "malicious party" is anyone, including someone who may be otherwise authorized, who accesses your telecommunications equipment with either malicious or mischievous intent.

Such intrusions may be either to/through synchronous (time-multiplexed and/or circuit-based) or asynchronous (character-, message-, or packet-based) equipment or interfaces for reasons of:

- Utilization (of capabilities special to the accessed equipment)
- Theft (such as, of intellectual property, financial assets, or toll-facility access)
- Eavesdropping (privacy invasions to humans)
- Mischief (troubling, but apparently innocuous, tampering)
- Harm (such as harmful tampering, data loss or alteration, regardless of motive or intent)

Be aware that there could be a risk of unauthorized intrusions associated with your system and/or its networked equipment. Also realize that, if such an intrusion should occur, it could result in a variety of losses to your company, including but not limited to, human/data privacy, intellectual property, material assets, financial resources, labor costs, and/or legal costs).

**Your Responsibility for Your Company's Telecommunications Security**
The final responsibility for securing both this system and its networked equipment rests with you — an Avaya customer's system administrator, your telecommunications peers, and your managers. Base the fulfillment of your responsibility on acquired knowledge and resources from a variety of sources including but not limited to:

- Installation documents
- System administration documents
- Security documents
- Hardware-/software-based security tools
- Shared information between you and your peers
- Telecommunications security experts

To prevent intrusions to your telecommunications equipment, you and your peers should carefully program and configure your:

- Avaya-provided telecommunications systems and their interfaces
- Avaya-provided software applications, as well as their underlying hardware/software platforms and interfaces
- Any other equipment networked to your Avaya products

**Federal Communications Commission Statement**
**Part 15: Class A Statement.** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instructions, could cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

**Trademarks**
All trademarks identified by ® and ™ are registered trademarks or trademarks respectively, of Avaya Inc. All other trademarks are the property of their respective owners.

**European Union Declaration of Conformity**
The "CE" mark affixed to the equipment means that the equipment conforms to the referenced European Union (EU) Directives listed below:
EMC Directive 89/336/EEC
Low-Voltage Directive 73/23/EEC
For more information on standards compliance, contact your local distributor.

**Comments**
To comment on this document, send mail to:
Avaya Inc.
Information Development
Room D1-B53
1300 W. 120th Ave
Westminster, CO 80234

Fax to:
Attention Intuity Interchange Writing team. 303-538-9625

Send an e-mail message to:
infodev@avaya.com

# Adding an Octel 100 System to Your Interchange Network

This document describes how to add to your Interchange network a new Octel® 100 system that uses the Octel Analog Networking protocol.

Keep in mind the following aspects of the instructions:

- Examples are included to aid in understanding, but the actual configurations and data you enter can vary greatly.
- The instructions apply to both Intuity Interchange R5.3 and Avaya™ Interchange R5.4.
- In general, it is recommended that the dial plan of the Interchange maintain as much consistency as possible between the addresses to send messages and the phone numbers subscribers dial when simply calling other subscribers. The examples in this document are designed to show such consistency.

## Checklist for Adding an Octel 100 Endpoint

To add a new Octel 100 messaging system to an existing Avaya or Intuity™ Interchange network, do the following:

| Task | Details of Task |
|---|---|
| Task 1: Ensure Interchange Is Enabled for Octel Analog Networking (see page 3) | Check the Feature Options screen on Interchange. (Professional Services normally does this for you, in addition to other Design Assurance tasks.) |

| | |
|---|---|
| Task 2: Get Information About the System You Are Adding (see page 4) | Complete the Planning Worksheet included in this document. You or the Octel 100 administrator get the system name and phone number, its mailbox IDs, its serial number, and its network setup from a number of Octel 100 screens. The switch administrator for your Interchange system and possibly the switch administrator for the new system will need to give you the dial plan and exact phone numbers (prefixes) for the Octel 100 mailboxes. |
| Task 3: Determine How to Map the New System's Dial Plan (see page 11) | Complete the Dial Plan Mapping Worksheet in this document (Professional Services normally does this for you). |
| Task 4: Determine the Type of Subscriber Update for the New System (see page 22) | Understand how full, dynamic, and directory view updates work, and choose the best one for your system. |
| Task 5: Check the Interchange Serial Number, If Any (see page 24) | Check the General Parameters screen. |
| Task 6: Check the Name, Feature Options, and Release Number on the Octel 100 System (see page 25) | Run the ViewSent command on the Octel 100 system. |
| Task 7: Check the Features Enabled on the Octel 100 System (see page 26) | Check the Port Parameters, the NameNet Parameters, and the Fax Parameters windows on the Octel 100 System. |
| Task 8: Create an Interchange Profile on the New System (see page 29) | Enter the Interchange as an Octel Analog Networking node in the Octel 100 system. |
| Task 9: Ensure Octel 100 Subscribers Are Enabled for Networking (see page 34) | Run the Class of Service Report and compare it with mailboxes displayed in the Edit Mailbox window. |
| Task 10: Identify the New System to the Interchange System (see page 36) | Complete the Octel Machine Administration screen for the new system. |
| Task 11: Administer Remote Machine Parameters (see page 38) | Complete the Remote Machine Parameters screen for the new system. Complete the Octel Machine Profile screen also by using the Dial Plan Mapping Worksheet. |

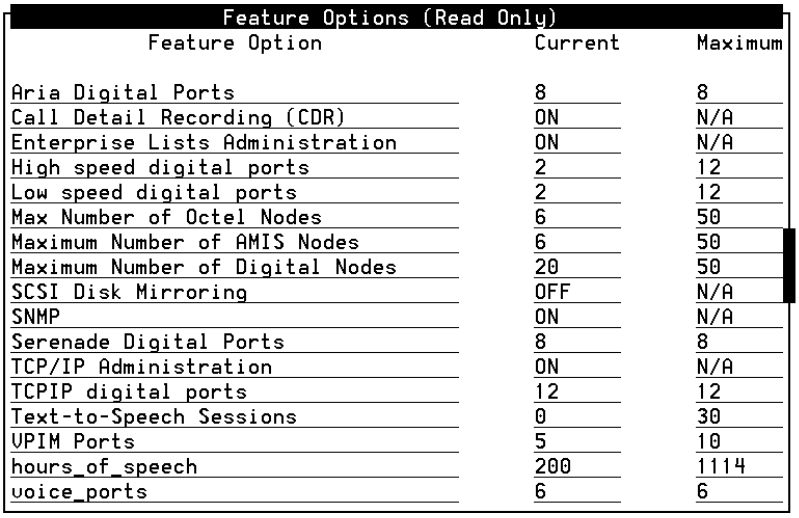
| | |
|---|---|
| Task 12: Map the New System's Dial Plan for Interchange (see page 43) | Complete the Dial Plan Mapping screen for the new system by using the Dial Plan Mapping Worksheet. |
| Task 13 (Optional): Administer Directory Views (see page 46) | Complete the Directory Views screen. |
| Task 14: Verify That the Endpoint Has Been Administered (see page 49) | Check for a new system entry on the Remote Machine List and the Remote Machine Dial Plan List. |
| Task 15: Add Remote Subscribers to Interchange (see page 50) | Set up the self-registration phone number on the General Parameters screen and then tell remote subscribers on the new system to send a message. Also, use FTP to upload a subscriber list to Interchange. |
| Task 16: Verify the Subscriber Update (see page 54) | Run the Subscriber List by Machine Name on Interchange. |
| Task 17: Test the Connection (see page 54) | Send messages to and from the test mailbox on the new system. |
| Task 18 (Optional): Manually Update the Octel 100 System (see page 57) | Run a Demand Remote Push to the Octel 100 system (not recommended due to the length of time required). |
| Task 19: Update Remote Systems for Subscribers on the New System (see page 59) | Add information to Directory Views, if appropriate. Run **get remote_update** from Intuity AUDIX® systems. Run Demand Update Push from Interchange to Aria®, Serenade®, and Octel 100 systems. |

# Task 1: Ensure Interchange Is Enabled for Octel Analog Networking

1.Start at the Interchange main menu and select

```
>Customer/Services Administration
    >Feature Options
```

The system displays the Feature Options screen. (Figure 1).



Feature Options (Read Only)

| Feature Option | Current | Maximum |
|---|---|---|
| Aria Digital Ports | 8 | 8 |
| Call Detail Recording (CDR) | ON | N/A |
| Enterprise Lists Administration | ON | N/A |
| High speed digital ports | 2 | 12 |
| Low speed digital ports | 2 | 12 |
| Max Number of Octel Nodes | 6 | 50 |
| Maximum Number of AMIS Nodes | 6 | 50 |
| Maximum Number of Digital Nodes | 20 | 50 |
| SCSI Disk Mirroring | OFF | N/A |
| SNMP | ON | N/A |
| Serenade Digital Ports | 8 | 8 |
| TCP/IP Administration | ON | N/A |
| TCPIP digital ports | 12 | 12 |
| Text-to-Speech Sessions | 0 | 30 |
| VPIM Ports | 5 | 10 |
| hours_of_speech | 200 | 1114 |
| voice_ports | 6 | 6 |

**Figure 1. Feature Options Screen**

2.Check that the following fields contain the correct data:

| | |
|---|---|
| **Maximum Number of Octel Nodes** | The Current column must exceed the number of nodes currently administered on Interchange. |
| **Voice Ports** | The number of ports must be sufficient to handle analog messaging traffic between Interchange and the new system. |

3.Press F6 (Cancel).

# Task 2: Get Information About the System You Are Adding

Your Account Executive determines with you the needed information about the new system and completes a *Planning Worksheet for Octel 100 Networking*. Retrieve these items and enter them in the Planning Worksheet that follows.

To complete the worksheet, you or your Octel 100 administrator will need to get information while performing the following tasks:

1. Determine the New System Serial Number and Phone Number (see page 6).

2. Task 6: Check the Name, Feature Options, and Release Number on the Octel 100 System (see page 25).

Additionally, you need to know how many digits are in the Interchange dial plan. Usually the dial plan consists of 7 or 10 digits, though the digits can be from 3 to 10.

## Planning Worksheet

**System Name:** _____ **System Dial String** _____

**System Serial Number** _____ **Is the system fax capable?** _

**End Node Test Mailbox(es)**:** _____

**Full Network Address Ranges for this End Node:** excluding address ranges associated with those mailboxes which will never receive messages, such as Auto Attendant, Bulletin Board, etc. **Keep ranges as specific to the actual mailboxes as possible** and consider any potential growth. In an existing system, verify existing ranges (see Existing Point to Point Screen Information for mailbox list information. Interchange requires one network address length.

| | Area Code and/or Local Exchange Prefix (if any) | Starting Extension | Ending Extension | Can this system support "simultaneous connections"? |
|---|---|---|---|---|
| 1. | | | | If so, indicate maximum quantity. |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |

## Determine the New System Serial Number and Phone Number

1. Start from the System Manager window, and select

```
>System Setup
```

```
>Networking Parameters
```

The system displays the Networking Parameters window (Figure 2).

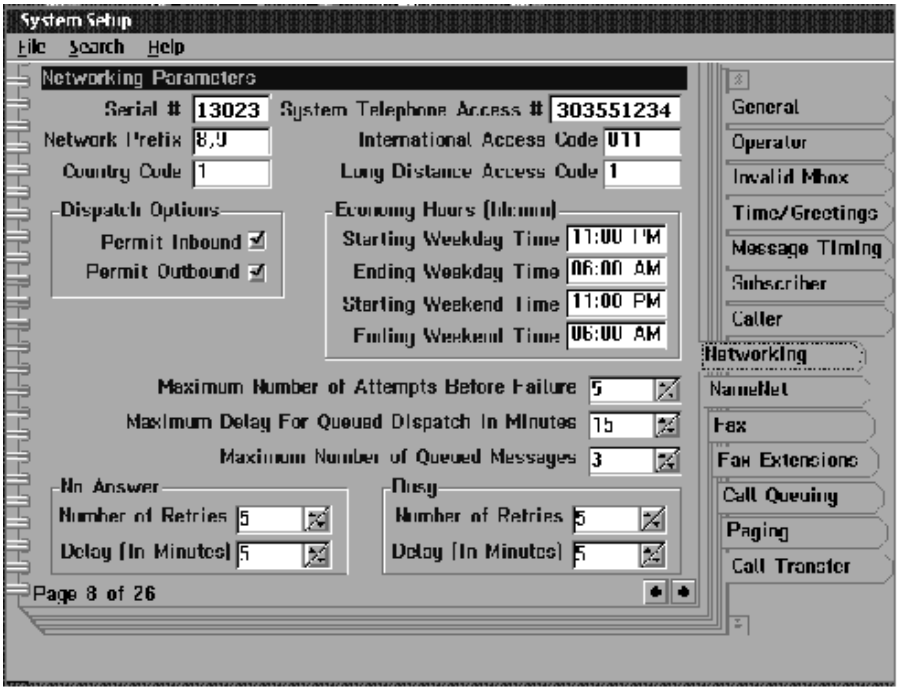



**Figure 2. Networking Parameters Window**

2.Check the **System Telephone Access #** field for the system phone number. The phone number, or incoming dial string, of the new system is normally the "Welcome to ...." number that subscribers use to get messages. However, see Considerations for the New System's Incoming Dial String (see page 7), for this number might not be the actual number Interchange dials to connect to the new system. After verifying the correct number, enter it in the Planning Worksheet (see page 6).

In the example, this number is **3035512345**.

## Considerations for the New System's Incoming Dial String

To verify the dial string that Interchange must use to call the new system, consult with your local switch administrator and the switch administrator for the new system.The main consideration is whether the phone number uses:

- The public network
- A private network

**Phone Number over Public Network**

If you do *not* have a private phone network over which the Interchange calls the new messaging system, the phone number will be a public phone number and include some or all of the following (see also Figure 3):


**Figure 3. Dial String Example over Public Network**

**NOTE:**
Be sure Interchange is allowed to make long distance calls. This capability is usually determined by Interchange's assigned Class of Restriction on your switch. The area code, which is always required for long distance calls, might also be required if local calls require 10-digit dialing.

Usually, the 7-digit number is the same number that subscribers use to get their messages.

### Phone Number over Private Network

If Interchange calls the system over a private network, the phone number includes one of the following (see Figure 4 or Figure 5):


**Figure 4. Dial String Example over Private Network (with Dial Access Code)**

**NOTE:**
In this example, Interchange dials the private network access code, **8**, for toll-free calls to another company location. In addition, Interchange dials a 10-digit or a 7-digit phone number, as in the public network example. Again, check with the switch administrator for the new system. Notice, you do *not* dial a **1** for long distance.

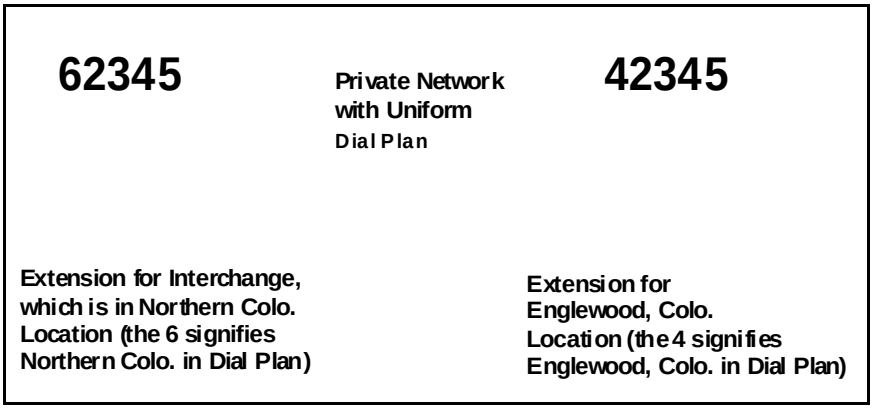



**Figure 5. Dial String Example over Private Network (with Uniform Dial Plan)**

**NOTE:**
In a private network with a uniform dial plan, extension numbers are usually 4 or 5 digits. The initial digit often signifies a specific location. In the example, **4** designates the Englewood location in the dial plan.

### Dial Plan-Related Screens on DEFINITY Switches

On DEFINITY and IP600 switches, switch administrators use the following screens to determine which number the Interchange needs to and is allowed to dial:

- Dial Plan
- Uniform Dial Plan
- Class of Restriction (COR)
- AAR or ARS Digit Analysis[1]
- AAR or ARS Digit Conversion
- Route Pattern

1. Automatic Alternate Routing (AAR) is the feature for routing calls over a private network. Alternate Routing Selection (ARS) is the feature for routing calls over a public network.

## Determine the Extension Ranges of the New System Mailboxes and Test Mailboxes

1. Log in to the Octel 100 system.

   The system displays the System Manager window and displays the Channel Status and Mailbox Status reports (Figure 6).

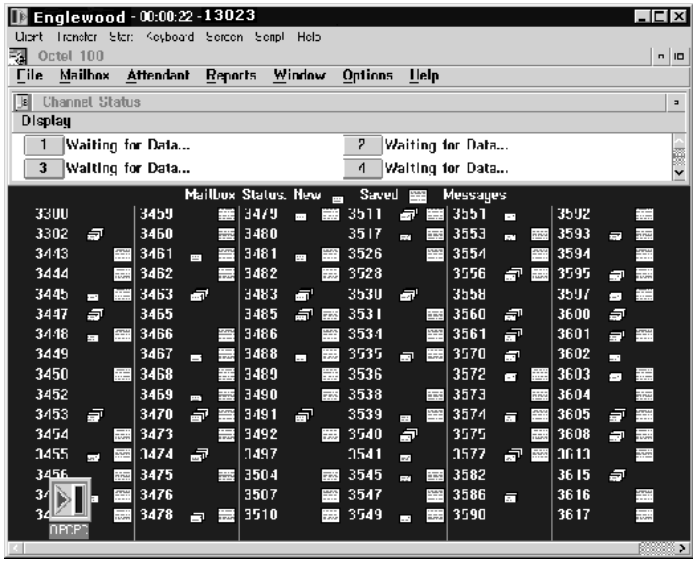



**Figure 6. Channel Status and Mailbox Status Reports**

2. Review the Mailbox Status report to determine the **Starting** and **Ending Extensions** of the voice mailboxes on the new system. Use the scroll bar at the bottom of the window to see all the mailboxes if necessary. Also, consult with the administrator of the new system to determine the appropriate ranges. Enter them in your Planning Worksheet (see page 6).

   The remote messaging system can have 3-digit, 4-digit, 5-digit, or up to 9-digit extensions in various ranges. For example, it can have 5-digit ranges of **20000** to **29999**, followed by **30000** to **39999**, and finally **50000** to **59999**.

   **CAUTION:**
   *Be sure that ranges do **not** include the extensions of automated attendants, bulletin boards, and other special mailboxes that are not intended to accept messages. If these mailboxes are included, then messages sent to Enterprise Lists defined by remote machine will fail and will show up in your delivery status reports. More importantly, messages might actually be sent to mailboxes that are not intended to receive E-list messages.*

3. Determine the **End Node Test Mailbox** on the new system. You use this mailbox to send and receive test messages through Interchange. Ask the administrator of the new system for a mailbox number. Enter the number in your Planning Worksheet (see page 6).

### Determine the Prefix(es) of the New System Mailboxes

1. Determine the **Area Code and/or Local Exchange Prefix(es)** that Interchange must use to send messages to mailboxes on the new system. Enter the prefixes in your Planning Worksheet (see page 6).

   Ask the switch administrator for the new system to get the correct digits. These digits are required because Interchange uses a specified address length (normally 7 or 10 digits for the US) to process all messages.

   The prefix comprises the digits that normally precede the mailbox IDs when someone calls the mailbox from outside of the switch location. The prefix could actually replace digits in the mailbox IDs, as will be defined as a part of Dial Plan Mapping. Usually, prefixes are associated with Direct Inward Dial (DID) trunks that direct calls to the mailboxes. That is, the prefix combined with the mailbox ID is usually the phone number of a subscriber.

   For example, mailboxes in the range **20000** to **29999** might normally be preceded by **303-55**. Therefore, if an outside caller wanted to leave a message for mailbox **20001**, that caller would actually dial **303-552-0001**. This example assumes the local area requires 10-digit dialing.

   It is possible, however, in a 10-digit dialing area, that mailboxes on the new system could be preceded by *different* prefixes. Therefore, although some mailboxes are preceded by **303-55,** the extension range **50000** to **59999** might be preceded by **720-48**. In this case, an outside caller would dial **720-485-5460** to call mailbox **55460**.

## Task 3: Determine How to Map the New System's Dial Plan

**NOTE:**
Avaya Professional Services normally determines how to map the dial plan for you and sends you a Dial Plan Mapping Worksheet. In this case, you can skip this task.

The Interchange network dial plan can use a uniform address length that consists of from 3 to 10 digits. However, it is strongly recommended that Interchange use a 7-digit or 10-digit dial plan. The new system, on the other hand, will likely have a different dial plan, one that usually uses 4 or 5 digits. In most cases, therefore, you will have to map the dial plan of the new system to the Interchange network address length.

**NOTE:**
If the mailbox IDs on the new system have exactly the same number of digits as the address length used in the Interchange network dial plan, then you might not need to perform dial plan mapping. For example, if the Interchange dial plan calls for 10-digit addresses, and the mailbox IDs on the new system always use 10 digits, you do not need to map the dial plans. As another example, if the Interchange dial plan uses the 5-digit uniform dial plan of a private network, and the new system's mailbox IDs also use the same 5-digit uniform dial plan within the same private network, you do not need to map the dial plans.

**CAUTION:**
*Since every Interchange address must be unique, there might be circumstances in which the new system's mailbox ID length matches the Interchange dial plan, but because the new system is not part of the same switch private network, the mailbox IDs might not be unique within the Interchange network. This situation is quite common, which is why it is normally recommended to use a 10-digit Interchange dial plan and dial plan mapping.*

Use the following instructions and the Dial Plan Mapping Worksheet (see page 20), to determine how to map the new system's dial plan. This worksheet is normally provided to you by Avaya Professional Services.

1. Note these two critical rules:
   - The digit or digits you enter in the Map From column for each Mailbox ID range must be *unique*.
   - If you have only one prefix that you are mapping to and you do not have to replace the initial digit or digits of the mailbox IDs[2], you can set the Map From Length to **0**.

     **CAUTION:**
     *If you change your dial plan later (for example, if you add more extensions that have a different DID prefix) and need to add Mailbox ID ranges for this system, you will have to remove the system from the Interchange network and add it again to the network with the new dial plan. This task could entail a significant amount of work.*

     *Therefore, if you anticipate the need to change the dial plan for this endpoint in the future, you might want to use a Map From*

2. If the new system's mailbox IDs must conform to a Uniform Dial Plan, the initial digit or digits of the mailbox IDs can overlap, **and differ from**, the ending digit or digits of the local exchange prefix. See Sample Dial Plan Mapping (When Prefixes Replace Initial Mailbox Digits) (see page 18).

*Length of **1** or more. See Figure 10 on page 16, which illustrates the alternative to Map From Length **0** in anticipation of future changes.*

2. Check your Planning Worksheet (see page 6) for the mailbox ID (extension) ranges of the new system. Review the examples that follow and fill out the Dial Plan Mapping Worksheet (see page 20), according to whether you have:
   - A broken or unbroken range of extensions
   - Ranges of extensions that have different prefixes and the first digit or digits in the **Start** field are unique.
   - Ranges of extensions that have different prefixes and the first digit or digits in the **Start** field are shared.
   - Initial digits in mailbox IDs that must be replaced with different digits.

## Sample Dial Plan Mapping (Single Unbroken Range of Mailbox IDs)

In Figure 7, since there is a single unbroken MAILBOX ID range (**2000** to **5999**), you enter **0** in the **Map From Length** field on the Dial Mapping Worksheet. In this case, you leave the **Map From** field for the range blank. Then, the **Map To** digits specify the area code and local exchange 3-digit prefix. You can get these numbers from your Planning Worksheet (see page 6).

When these digits are added to the 4-digit mailbox IDs, Interchange has the necessary 10 digits.

Dial Plan with 0 Map From Length

Remote Machine Name: Englewood

Mailbox ID Length: 4

Map From Length: **0**

| MAILBOX ID: | | NETWORK ADDRESS DIAL PLAN MAPPING | |
|---|---|---|---|
| Start | End | Map From | Map To |
| 2000 | 5999 | | 303555 |
| | | | |
| | | | |
| | | | |

**Figure 7. Sample Dial Plan Map with a Single Range (0 Map From Length)**

Keep in mind that Interchange allows you to use a **Map From Length** of up to **9**. In some circumstances with the previous example, you might choose to use a **Map From Length** of **1**, **2**, **3**, or even **4** with the range **2000** to **5999**.

In a likely scenario with range **2000** to **5999,** you might anticipate the need to change the Dial Plan Mapping later, so you choose **1** for the **Map From Length**, *not* **0**. In this case, the map would appear as follows (Figure 8).

Remote Machine Name: Englew

Mailbox ID Length: 4

Map From Length: **1**

| MAILBOX ID: | | NETWORK ADDRESS DIAL PLAN MAPPING | |
|---|---|---|---|
| Start | End | Map From | Map To |
| 2000 | 5999 | 2 | 3035552 |
| | | 3 | 3035553 |
| | | 4 | 3035554 |
| | | 5 | 3035555 |

**Figure 8. Sample Dial Plan Map with a Single Range (1 Map From Length)**

## Sample Dial Plan Mapping (Broken Ranges of Mailbox IDs with Map From 0)

In Figure 9, there are broken MAILBOX ID ranges. In this case, ranges 4000 to 4999 and 5500 to 5799 might be omitted for one of two reasons:

- The range contains auto-attendant mailboxes and other extensions for which mailboxes have not been assigned.
- Another messaging system, which uses the same prefix as this system, will use the mailbox ranges 4000 to 4999 and 5500 to 5799.

In this example, you can still enter **0** in the **Map From Length** field on the Dial Mapping Worksheet. In this case, you leave the **Map From** field for the range blank. Then, for the **Map To** digits for the first range, specify the area code and local exchange 3-digit prefix. Then, leave the remaining Map From and Map To fields blank. Interchange will automatically apply the prefix to the remaining ranges.

When the prefix digits are added to the 4-digit mailbox IDs, Interchange has the necessary 10 digits.

**CAUTION:**

*If it is possible that this system will add mailbox ranges at a later time, do **not** use Map From Length **0**. Instead, use Map From Length **1**, as in Figure 10. If you use Map From Length 0, and then later must change the dial plan so that you must use a different Map From Length, you will have to remove the system from the Interchange network and then add it again.*

Dial Plan with 0 Map From Length

Remote Machine Name: Englewood Mailbox ID Length: 4

Map From Length: **0**

| MAILBOX ID: | | NETWORK ADDRESS DIAL PLAN MAPPING | |
|---|---|---|---|
| Start | End | Map From | Map To |
| 2000 | 2999 | | 303555 |
| 3000 | 3999 | | |
| 5000 | 5499 | | |
| 5800 | 5999 | | |

**Figure 9. Sample Dial Plan Map with Multiple Ranges (0 Map From Length)**

## Sample Dial Plan Mapping (Broken Ranges of Mailbox IDs with Map From 1)

In Figure 10, as in the previous example, there are also broken MAILBOX ID ranges.

However, say that in this example, you anticipate that you will need to change the dial plan for this system in the future, so you avoid entering a **0** Map From Length. If you were to enter **0**, you would have to remove the system and add it again to change its dial plan. So, instead, you can enter **1** in the **`Map From Length`** field on the Dial Mapping Worksheet. In this case, enter the first digit of the first Mailbox ID range in the **`Map From`** field. Then, for the **`Map To`** digits for the first range, specify the area code, local exchange 3-digit prefix, and the first digit of that same Mailbox ID range. Then, enter the first digit of the next range with a unique start digit, and so on.

When the prefix digits are added to the 4-digit mailbox IDs, Interchange has the necessary 10 digits.

**NOTE:**

Notice that the last Mailbox ID range, **5800** to **5899** does not have **`Map From`** and **`Map To`** digits entered next to it. This is because the

**`Map From` 5** and **`Map To` 3035555** digits apply to any range that starts with **5**.

Remote Machine Name: Englewood — Mailbox ID Length: 4
Map From Length: **1**

| MAILBOX ID: Start | MAILBOX ID: End | NETWORK ADDRESS DIAL PLAN MAPPING: Map From | NETWORK ADDRESS DIAL PLAN MAPPING: Map To |
|---|---|---|---|
| 2000 | 2999 | 2 | 3035552 |
| 3000 | 3999 | 3 | 3035553 |
| 5000 | 5499 | 5 | 3035555 |
| 5800 | 5999 | | |

**Figure 10. Sample Dial Plan Map with Multiple Ranges (1 Map From Length)**

## Sample Dial Plan Mapping (Ranges That Require Different Prefixes)

In Figure 11, there are broken MAILBOX ID ranges, and one range has a different **`Map To`** prefix. This situation requires a **`Map From Length`** of **1** or greater.

In this example, the range with a different prefix, 5000 to 5999 begins with a unique Start digit. Therefore, you can enter **1** in the **`Map From Length`** field on the Dial Mapping Worksheet. In this case, then, the **`Map To`** digits for the ranges consist of the first digit of each range, and the **`Map From`** digits specify the area codes and local exchange 3-digit prefixes for their respective Mailbox ID ranges.

Remote Machine Name: Englewood — Mailbox ID Length: 4
Map From Length: **1**

| MAILBOX ID: Start | MAILBOX ID: End | NETWORK ADDRESS DIAL PLAN MAPPING: Map From | NETWORK ADDRESS DIAL PLAN MAPPING: Map To |
|---|---|---|---|
| 2000 | 2999 | 2 | 3035552 |
| 3000 | 3999 | 3 | 3035553 |
| 5000 | 5999 | 5 | 7205515 |
| | | | |

**Figure 11. Sample Dial Plan Map with Multiple Prefixes (1 Map From Length)**

## Sample Dial Plan Mapping (Ranges with Different Prefixes and Shared Start Digits)

In the following example, the new system had two MAILBOX ID ranges with the same initial digit **5** (**5000** to **5499** and **5500** to **5999**), but their DID prefixes were different and, therefore, must be differentiated in the Dial Plan Map. Also, because entries in the **Map From** column for each range must be unique, there must be **2** Map From digits. That is, you ***cannot*** set up dial plan mapping with one Map From digit as follows:

Remote Machine Name: Englewood

Mailbox ID Length: 4

Map From Length: **1**

You cannot do this!! See Figure 12 instead.

| MAILBOX ID: | | NETWORK ADDRESS DIAL PLAN MAPPING | |
|---|---|---|---|
| Start | End | Map From | Map To |
| 2000 | 2999 | 2 | 3035552 |
| 3000 | 3999 | 3 | 3035553 |
| 5000 | 5499 | **5** | 3035555 |
| 5500 | 5999 | **5** | 7205515 |

Instead, you must break out every MAILBOX ID range so that the first two digits in each range are unique (see Figure 12). This requirement includes ranges that have unique initial digits (**2000** to **2999** and **3000** to **3999** in the example). The **Map To** digits include 8 digits that specify area code, the local exchange 3-digit prefix, and two additional digits that match the **Map From** digits. When the Map To digits are added to the remaining 2 digits of the mailbox IDs, Interchange has the 10 digits required for the mailboxes.

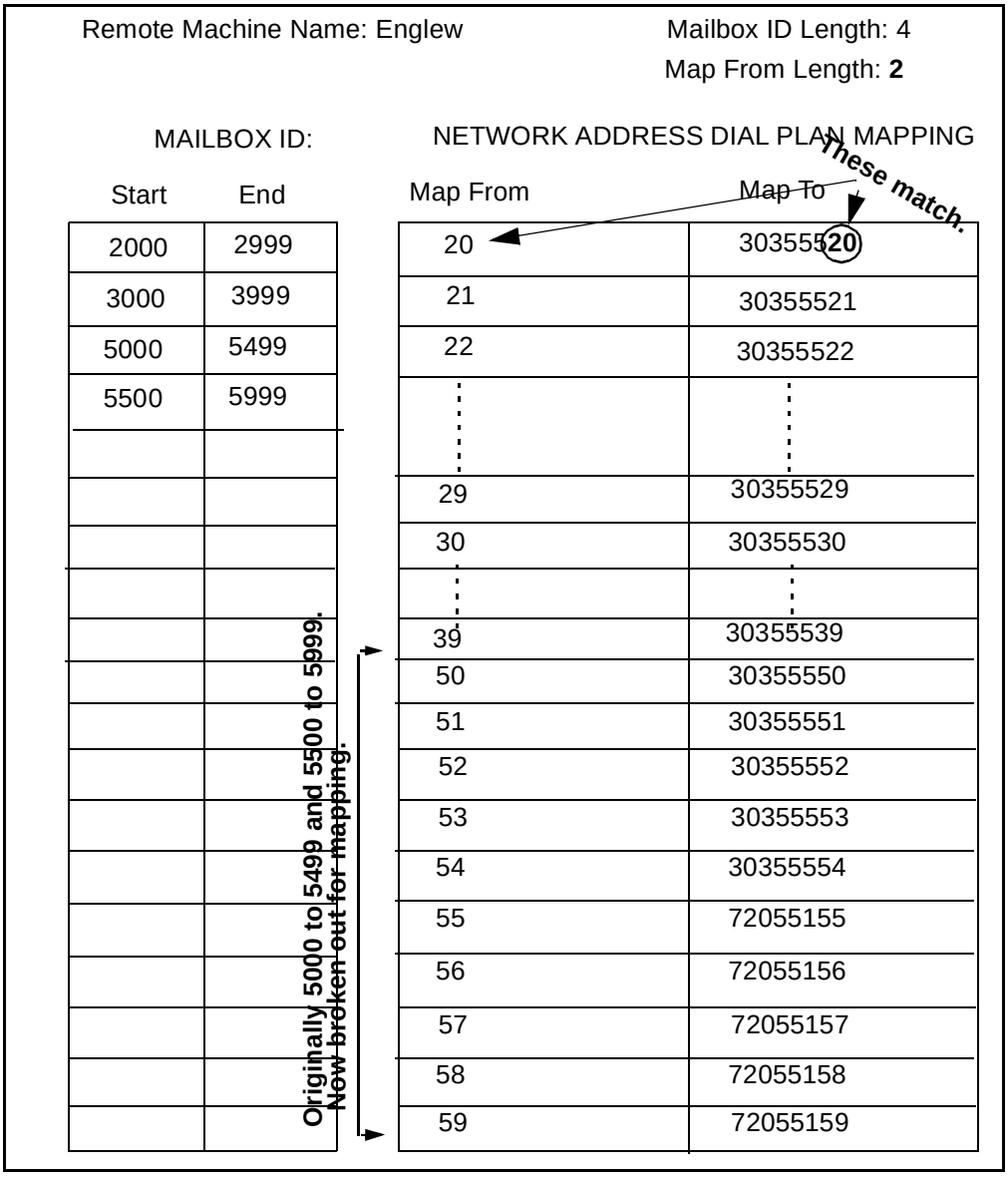



**Figure 12. Dial Plan with Multiple Prefixes (2 Map From Length)**

## Sample Dial Plan Mapping (When Prefixes Replace Initial Mailbox Digits)

In Figure 13, there are broken MAILBOX ID ranges, and the two ranges have different **`Map To`** prefixes. *Additionally*, the mailbox IDs are part of a 5-digit Uniform Dial Plan across two switches so that the initial digits of the mailbox IDs overlap the final digits of the phone number prefixes. In this case, the Dial Plan

Map will replace the initial digit of the MAILBOX ID ranges with a different digit. This situation also requires a **`Map From Length`** of **1** or greater.

In this example, a mailbox in the first range might be **21333**, but its external phone number would be **303-555-1333**. In the Dial Plan Mapping screen, the initial mailbox digit **2** is replaced with the final digit of the prefix, in this case, **5**. A mailbox in the second range might be **54444**, but its external phone number would be **720-551-4444**. In the Dial Plan Mapping screen, the initial mailbox digit **5** is replaced with the final digit of the prefix, in this case, **1**.

Remote Machine Name: Englewood  Mailbox ID Length: **5**
Map From Length: **1**

| MAILBOX ID: | | NETWORK ADDRESS DIAL PLAN MAPPING | |
|---|---|---|---|
| Start | End | Map From | Map To |
| 20000 | 29999 | 2 | 303555 |
| 50000 | 59999 | 5 | 720551 |
| | | | |
| | | | |

**Figure 13. Sample Dial Plan Map When Prefixes Replace Initial Mailbox Digits (1 Map From Length)**

## Dial Plan Mapping Worksheet

Remote Machine Name: _____ Mailbox ID Length: ___
Map From Length: ___

| MAILBOX ID: | | NETWORK ADDRESS DIAL PLAN MAPPING | |
|---|---|---|---|
| Start | End | Map From | Map To |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

3. In the **`Mailbox ID Length`** field, enter the number of digits in each mailbox ID. Normally, this number is **4** or **5,** but it can be from 3 to 10. Check your Planning Worksheet (see page 6).

4. In the **Map From Length** field, enter the number of digits that Interchange will replace with mapping digits to convert the current mailbox IDs to Interchange network address length and to ensure unique addresses across the Interchange network.

   The **Map From Length** can be **0** to **9** digits, and how many digits you map can vary greatly depending on how readily the new system's mailbox ranges fit into the existing Interchange network. However, as in the preceding samples, this number will often be based on considerations such as the following:

   - One range (for example, **0000** to **9999** — in this case, you might type **0**) (but see the Caution that follows).
   - Broken ranges, each with unique prefixes (for example, **2000** to **2999** with prefix 303-555 and **4000** to **4999** with prefix 720-551 — in this case, you might type **1**).
   - Multiple ranges that share start digits but have different prefixes (for example, **5000** to **5499** with prefix 303-555 and **5500** to **5999** with prefix 720-551, where **5** is a shared start digit — in this case, you might type **2**).
   - Ranges whose initial digits must be replaced with different digits (for example, a uniform dial plan range of **50000** to **59999**, but a local exchange prefix that ends in **1** — in this case, you might type **1**).

   **CAUTION:**
   *If you use Map From Length **0**, you **cannot** change this value later. Instead, you must remove the remote system from the Interchange network and add it again.*

5. In the **Mailbox ID Start** and **End** fields, list the mailbox ID ranges of the new system. You get the ranges from your Dial Plan Mapping Worksheet (see page 20).

6. In the first **Map From** field, type the digit(s) that match the first digit(s) of the first **MAILBOX ID Start** and **End** range. This field can be blank if Interchange will add the same Map To digits for all ranges and no digits in the mailbox IDs must be replaced with different digits. However, the number of digits you enter must match the number of digits specified in the **Map From Length** field.

   In the example in Figure 12, the first field contains **20**, because the mailbox ID range starts with 20, and these first two digits will be replaced with the last two digits of the **Map To** digit string.

7. In the first **Map To** field, type the area code and DID prefix of the mailbox IDs. For these numbers, check your Planning Worksheet. The last digits in this field must match the digits in the **Map From** field.

In the example in Figure 12, the first field contains **30355520**, with the last two digits, **20**, as substitutes for the first two digits **20** of the mailbox range, thereby creating mailbox IDs of 10 digits. For example, the first mailbox would have a network address of **303-555-2000**, and the last mailbox in this range would have an address of **303-555-2099**.

**NOTE:**
If the **Map From** field is blank, the **Map To** digits will simply be added to the mailbox IDs to total 10 digits.

# Task 4: Determine the Type of Subscriber Update for the New System

To keep the remote subscriber list for the new system up to date with subscribers within the Interchange network, you must select one of four options for the new system:

**Full updates**

**NOTE:**
Full updates can require a great deal of time to complete since the communication is over an analog connection. As a result, full updates are generally not recommended for systems that use Octel Analog Networking.

Full updates include, in the new system's remote subscriber list, every subscriber on every system in the Interchange network. This option ensures that subscribers on the new system can address by name every subscriber in the network. However, this option can require a very long update time and a large amount of disk space on the new system. Also, remote subscribers who do not send or receive messages will be stored unnecessarily.

If you select this option, Interchange performs a full update when you first administer the new system and run a Demand Remote Push to the new system. Subsequent updates include changes to subscriber lists of remote systems, where subscribers have been added or removed. Subsequent updates occur in either of the following circumstances:

- When you perform a Demand Remote Push for the Octel 100 system
- When Interchange receives a subscriber change from a remote system

**CAUTION:**
*If you begin with full updates and later change to dynamic subscriber updates, Interchange will remove all subscribers from the remote subscriber directory and begin to repopulate the directory with dynamic updates.*

**Dynamic updates**

*This update option is strongly recommended.* With this option, each time a subscriber on the new system sends a message to a remote subscriber, that remote subscriber is added to the Dynamic Directory List for the new system. Likewise, each time a remote subscriber sends a message to a subscriber on the new system, that remote subscriber is added to the list.

If, typically within the next 90 days (see Dynamic Sub Expiration Days on the Remote Machine Profile screen), no other messages are sent from the new system to that remote subscriber, or vice versa, that remote subscriber is removed from the list. This removal helps save storage space on the new system.

**Directory View updates only**

**NOTE:**
Directory View updates can require a great deal of time to complete since the communication is over an analog connection. As a result, Directory View updates are generally not recommended for systems using Octel Analog Networking.

With this option, the new system's remote subscriber list will include subscribers within ranges of extensions on systems you specify. A Directory View list for a system is static, and as with full updates, this option can use a lot of disk space. Additionally, with this option, subscribers who fall outside the ranges and systems you specify will not be addressable by name from the new system.

If you select this option, Interchange performs a directory view update when you first administer the new system and run a Demand Remote Push to the new system. Subsequent updates include changes to subscriber lists of remote systems, where subscribers have been added or removed. Subsequent updates occur in either of the following:

- When you perform a Demand Remote Push for this system
- When Interchange receives a subscriber change from a remote system.

**Combination of Dynamic and Directory View updates**

You can use Dynamic Subscriber Updates and Directory Views in combination. In this case, dynamic updates occur as described above, but the Directory Views option also identifies specific ranges of extensions on specific remote systems to ensure that remote subscribers on those systems can be addressed by name on the new system.

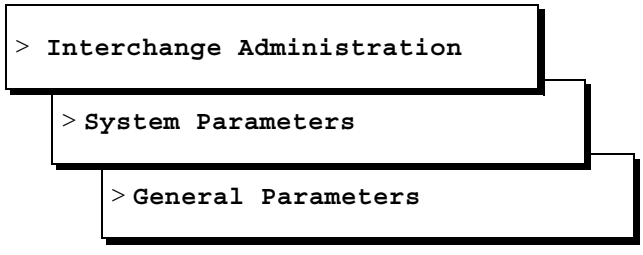
This type of setup is useful when you are converting high-traffic point-to-point systems to the Interchange network and/or when it is important that all or a subset of remote subscribers on a specific system is addressable by name for subscribers on the new system.

**None** With this option, Interchange will not update the subscriber names list for the new system. This might be a useful option during testing or early during the addition of the new system to discourage subscribers on the system from sending messages through Interchange.

# Task 5: Check the Interchange Serial Number, If Any

Since Interchange needs an Octel Analog Networking serial number to communicate with the Octel 100 system, you need to determine the serial number to make sure it matches the serial number you enter for Interchange in the Octel 100.

1. Start at the Interchange main menu and select




The system displays the General Parameters screen (Figure 14).

```
                        General Parameters

Local Machine Name:  central                    Network Address Length: 10
Automatic Full Updates? y   UPDATES: In? y Out? y  Network Turnaround? y
System Prime Time: Start: 08:00  End: 17:00            CDR Retention: 7

MAXIMUM DELIVERY TIMES:
                    Priority: 0 days  4 hrs  0 mins
                Non-Priority: 0 days  12 hrs  0 mins
 STATUS MESSAGES TIMES:
                  Expiration: 7 days  0 hrs  0 mins
               Poll Interval: 0 days  1 hrs  0 mins

 Octel Analog Networking Serial Number:80003      VPIM Port:25
    Self Registration Agent ID: 9991234527
 Organization: central ops
 Org Unit: 131222-a8                  Country: usa
 Domain Name: central.co.acme.com
 DNS IP Addresses:
   1: 146.9.1.39                 2:
   3:
Enter Domain Name
```

**Figure 14. General Parameters Screen**

2. In the **`Octel Analog Networking Serial Number`** field, check the number. If there is no number, type **80000**. This number must match the serial number you enter in Octel 100 when you identify the Interchange to Octel 100. Also, this number, which must be between 80000 and 81000, must be unique to any other Interchange systems in the Octel 100's network.
3. In the **`Self Registration Agent ID`** field, type a 10-digit phone number to which the new system's subscribers can send a message with a recording of the subscriber's voiced name only. This number is actually necessary to complete the self-registration described in Task 15: Add Remote Subscribers to Interchange (see page 50). However, other messaging systems (VPIM, AMIS and Serenade Octel Analog Networking systems) in the Interchange network might also use this number.

   For this number, use a fictitious area code and prefix to ensure the messages do not go to a real phone number or mailbox, either within your Interchange network or in the public network. You might use an alphabetical code so that subscribers can easily remember the number. For example, the number 734 478 3763 spells REGISTER ME on the telephone dial pad.

   In the example, the phone number for self-registration is **9991234527**.
4. Press F3 (Save).
5. Press F6 (Cancel) to return to the System Parameters menu.

# Task 6: Check the Name, Feature Options, and Release Number on the Octel 100 System

1. From the OS/2 desktop, check the new system's name as displayed in the upper border of the desktop window. Write the name in your Planning Worksheet (see page 6).
2. Open an OS/2 file.
3. At the command prompt, type **viewsent**, and press ENTER**.**

   The system displays the Sentinel information (Figure 15).

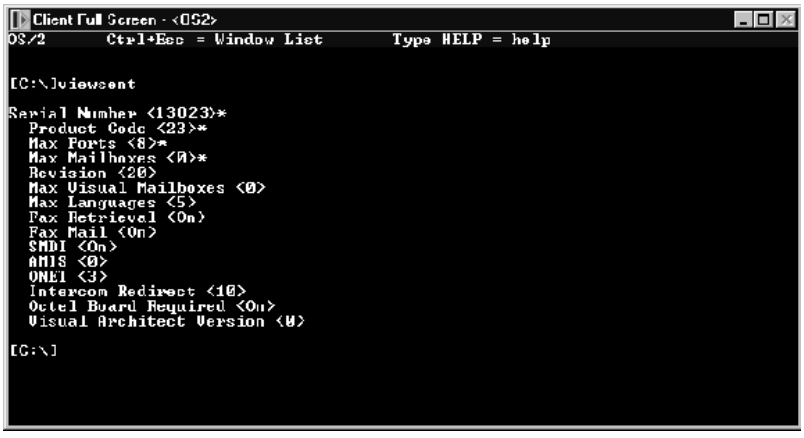



**Figure 15. Sentinel Information with ViewSent Command**

4. Check the **Revision** field for the release number of Octel 100. This number must be **3.2.9D**.
5. Check that the **Fax Retrieval** and **Fax Mail** fields contain **y**.
6. Check that the **ONet** field contains **y**.
7. At the command prompt, type **exit**, and press ENTER to return to the OS/2 desktop.

# Task 7: Check the Features Enabled on the Octel 100 System

To ensure that the new Octel 100 system already has ports and features enabled for networking, do the following:

1. Start from the System Manager window, and select

```
>System Setup
    >Port Parameters
```

The system displays the Port Parameters window (Figure 16).


**Figure 16. Port Parameters Screen**

2. Check the **Outbound Usage Permitted section** and the **AMIS/OctelNet** field for the number of ports. Write this number in the **''Can this system support simultaneous connections''** field on the Planning Worksheet (see page 6).
3. Do one of the following:
   - If you find ports enabled for networking, go to Step 4.
   - If you do not find any ports enabled, you or the system administrator must determine how many, and which, ports must be enabled for networking.
4. Select the NameNet tab from the System Setup window.

   The system displays the NameNet Parameters window (Figure 17).

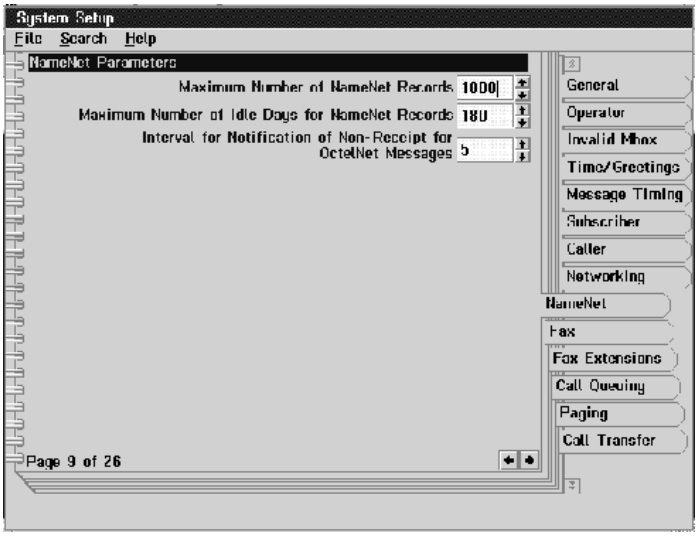



**Figure 17. NameNet Parameters Window**

5. In the **Maximum Number of NameNet Records** field, type a number that approximates the number of remote subscribers that this system will store. If this number is **0**, the system will not store remote subscriber names, and local subscribers will not be able to address remote subscribers by name.
6. In the **Maximum Number of Idle Days for NameNet Records** field, note the number of days. Check that this number matches the **Dynamic Sub Expiration Days** number you enter on Interchange when you perform Task 11: Administer Remote Machine Parameters (see page 38). The default on the Octel 100 system is 180, but the default on Interchange is 90.
7. Select the **Fax** tab from the System Setup window.

   The system displays the Fax Parameters window (Figure 18).

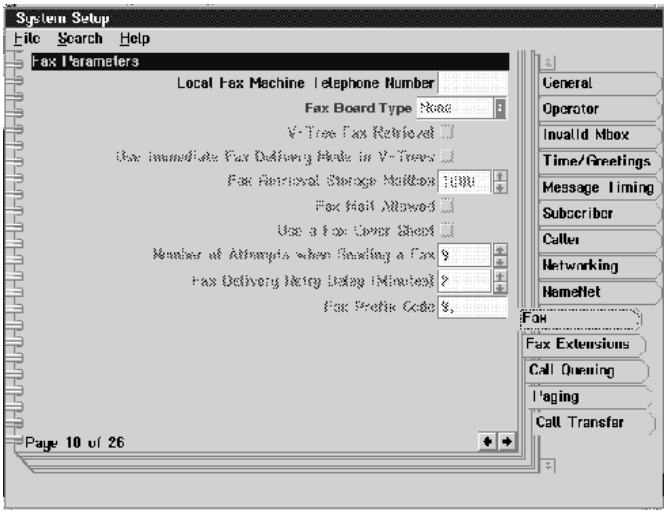



**Figure 18. Fax Parameters Window**

8. Check the **`Fax Board Type`** field for a board type. If **None** appears, then this system is not enabled for faxes. Write **n** in the **`Is System FAX Capable?`** field in your Planning Worksheet (see page 6).
9. Select **`Save`** from the File menu.

# Task 8: Create an Interchange Profile on the New System

To add an Octel 100 system to your Interchange network, you must identify the Interchange system to the Octel 100 networking software. To perform this task, you do the following on the Octel 100 system:

- Check for Available Node Numbers (see page 29).
- Create the Interchange Node (see page 31).

## Check for Available Node Numbers

A node number helps the Octel 100 system identify a networked remote system when an Octel 100 subscriber addresses a message to a subscriber on that remote system. In the example that follows, Interchange has a node number of **156**. Thus, when an Octel 100 subscriber addresses a message to a remote subscriber who, for example, has the Interchange address of **9705551234**, the Octel subscriber must add the node number to the front of the remote subscriber's address. The result is that the complete address that the Octel 100 needs in this example is **1569705551234**.

However, depending on how you administer the Interchange node, the Octel 100 system normally strips off all or parts of the node number from the address when it sends the message to Interchange. This stripping occurs is because Interchange needs only the network address of the subscriber, normally 7 or 10 digits.

An exception (although not recommended[3]) might be used when the first digit or digits of an Interchange network address are always the same. For example, perhaps the Interchange has 10-digit network addresses that are all within the same area code, *and* there are no other point-to-point networked systems that are also within that area code. Then, the area code of the Interchange address could be the node number for Interchange, and you could administer the Octel 100 system to *not* strip off the node number when it sends messages to Interchange.

1. From the System Manager window, click the Options menu and select the following option

```
> Network Maintenance
```

   The system displays the Select Node window (Figure 19).


**Figure 19. Select Node Window**

2. Click Search.

   The system displays the Search window (Figure 20).

3. If you use a node number that is part of the Interchange network addresses, this might cause problems if you later add other nodes within the Interchange network that do *not* have the node number as part of their addresses.

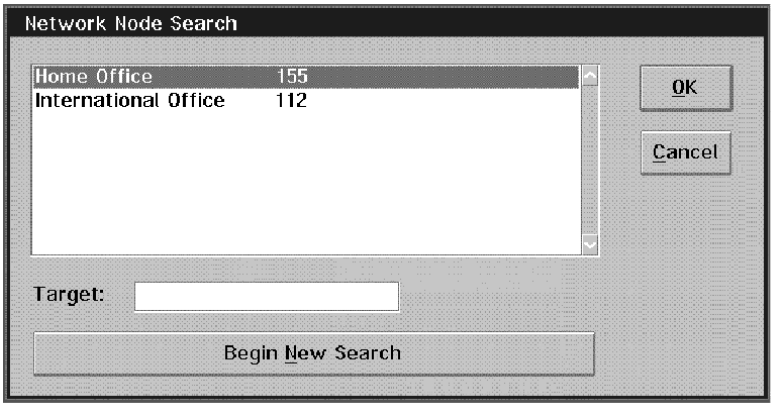



**Figure 20. Network Node Search Window**

3. Check the list of numbers in the Network Node Search window to ensure that the node number you will use for Interchange is unique.
4. Click Cancel to return to the Select Node window.

## Create the Interchange Node

1. In the Select Node window, type the node number for Interchange, and click Create.

   **NOTE:**
   Every Octel 100 subscriber who sends a message to a remote subscriber through Interchange will need to add the Interchange node number to the remote subscriber's address. For example, if the Interchange node number is **156**, and a remote subscriber in the Interchange network has a 10-digit address like **9705553333**, the Octel 100 subscriber will address a message to that remote subscriber with **1569705553333**.

   The system displays the Network Node Maintenance window (Figure 21).

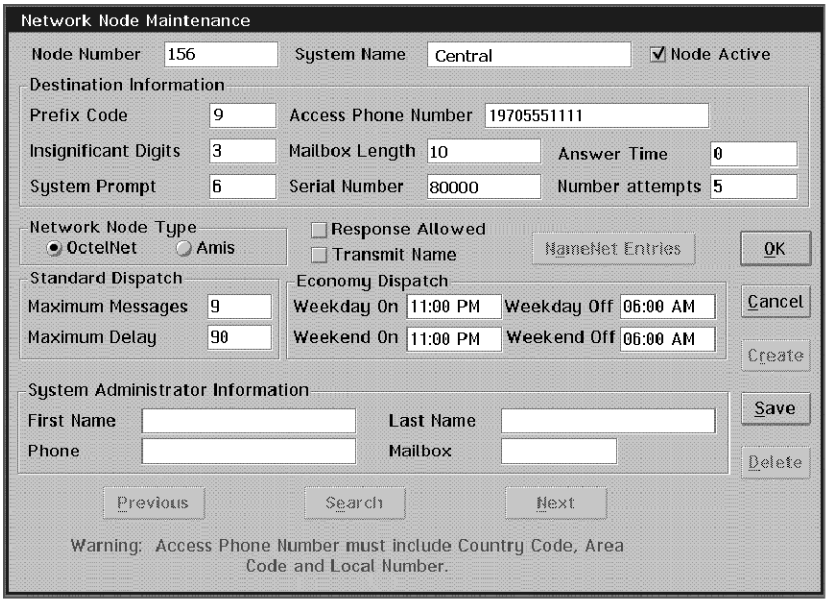



**Figure 21. Network Node Maintenance Window**

2. In the **System Name** field, type the name of the Interchange system. In the example, the Interchange name is **central**.
3. In the **Prefix Code** field, type the prefix necessary for the network access the Octel 100 system will use, usually **8** or **9**. In the example, leave the default **9** for trunk access to the public network.
4. In the **Access Phone Number** field, type the analog telephone number of Interchange. This is the callback number. This number must also be combined with the entry in the **Prefix** field for the complete dial sequence that Octel 100 performs.

   In the example, the phone number is **19705551111**. The Interchange phone number would be found at the AMIS Analog Parameters screen on Interchange, which you access from the Interchange Administration and System Parameters menus.

   As when Interchange dials the new system, the phone number you enter must take into account whether the calls will occur over a private or public network. This, in turn, will determine whether an outside access number (normally **9**), a network access number (normally **8**), or a private network extension (usually 4 or 5 digits) will be used, and whether a long distance digit (**1**) is included. See Considerations for the New System's Incoming Dial String (see page 7).

5. In the **Insignificant Digits** field, type the number of Node Number digits that Octel 100 should strip off the addresses of messages sent to Interchange. In the example, the Octel 100 system will strip off all 3 digits of the node number, **156**, so you enter **3** in this field.
6. In the **Mailbox Length** field, type the address length of the Interchange network dial plan, normally 7 or 10. In the example, the mailbox length is **10**.
7. In the **Answer Time** field, leave the default of **0**. A value greater than 1 indicates the length of time, in seconds, that the Octel 100 system will wait for a connection to Interchange before it delivers messages. Normally, the call progress tones received by the switch are sufficient to determine when to deliver messages.
8. In the **System Prompt** field, leave the field blank. Normally, an Octel 100 subscriber hears only the voiced name of the recipient when he or she addresses a message to a remote Interchange subscriber. However, if you want subscribers to hear another prompt when they are sending messages through Interchange, record the prompt and enter its number in this field.
9. In the **Serial Number** field, type **80000**, unless there are other Interchange systems in the network already with Octel Analog Networking serial numbers. Check with administrators of any other Interchanges that communicate with your Interchange. The serial number must be between **80000** and **81000** and must match the serial number entered in the Interchange General Parameters screen in Task 5: Check the Interchange Serial Number, If Any (see page 24).
10. In the **Number Attempts** field, leave the default of **5**. This is the number of times the Octel 100 system tries to send queued messages to Interchange before it records a failure and notifies the senders.
11. In the **Network Node Type** field, click the button associated with Octel Analog Networking.
12. Select the **Response Allowed** to allow Interchange to retrieve queued messages from the Octel 100 system during the same session in which Interchange delivers messages to the Octel 100 system. This response can increase toll charges if you want to limit message delivery to the times identified in the **Economy Dispatch** fields.

    
    **NOTE:**
    This field refers to the same function as that referred to by the **Network Turnaround** field on Interchange.

13. Do *not* select the **Transmit Name** field. If you select this field, remote recipients of messages from the Octel 100 system will hear voiced names of senders twice, since Interchange also transmits the sender's voiced name.

14. In the **Maximum Messages** field, type the number of outgoing messages in queue after which the system uses an additional transmission connection for networked messages to Interchange.
15. In the **Maximum Delay** field, type the cumulative number of minutes any single message can wait in queue, after which an additional transmission connection is used.
16. In the **Economy Dispatch Weekday On** and **Weekday Off** fields, you normally leave the default times from the Networking Parameters Window (see page 7). This is the time during the week when the Octel 100 system sends low priority messages marked for economy dispatch.

    However, you might want to change the times specifically for Interchange if, for example, there is a significant time zone difference. In this case, enter a **Weekday On** time in the format *hh:mm am* or *pm*, and a **Weekday Off** time for the weekday economy dispatch.
17. In the **Economy Dispatch Weekend On** and **Weekend Off** fields, you also normally leave the default times from the Networking Parameters screen. This is the time on Saturday and Sunday when the Octel 100 system sends low priority messages marked for economy dispatch.
18. In the **System Administrator Information** fields, type any contact information that you find useful. These fields are optional.
19. Click Save to save your entries.
20. Click OK to return to the System Manager window.

# Task 9: Ensure Octel 100 Subscribers Are Enabled for Networking

You might already have assigned a class of of service to subscribers that allows them to send and receive networked messages. If you do not know if subscribers are enabled for networking, perform the following steps.

1. From the System Manager window, click open the Reports menu and select

```
> Class of Service
```

   The system displays the Reports dialogue box.
2. Select **Print**, **Disk**, or **Screen** to view the Class of Service report.

   The system displays the report on the screen, prints it, or saves it to disk (Figure 22).

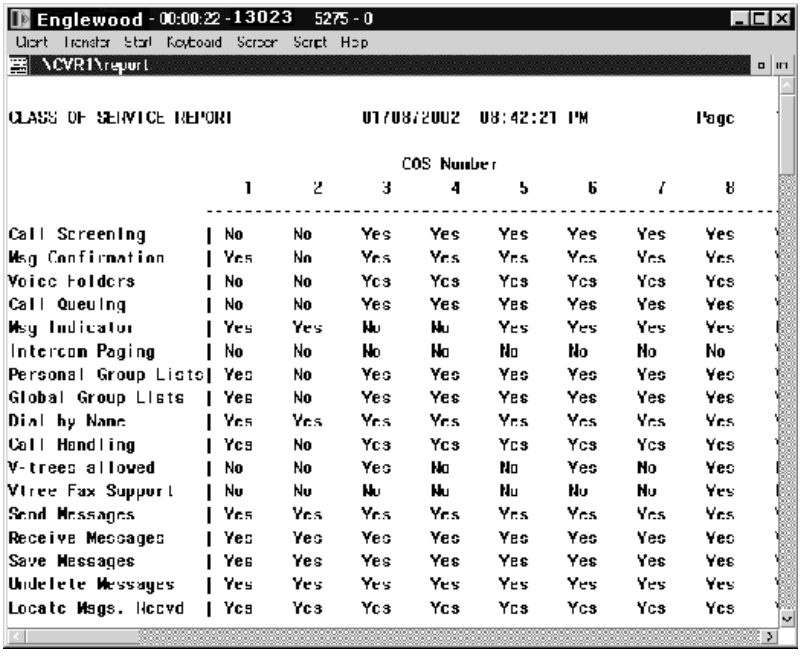



**Figure 22. Class of Service Report**

3. Scan down the left column for the Octel Analog Networking (formerly OctelNet) feature.
4. Starting at the row where the Octel Analog Networking feature is listed, scan across and find the class or classes of service that have the entry **Yes**. A class of service with **Yes** will enable subscribers to send messages to Interchange. Write these classes of service down.

   If no Class of Service has the entry **Yes**, you will have to enable Octel Analog Networking in the commonly used class or classes of service currently assigned to subscribers. Continue with Step 5.
5. Double-click the upper left corner of the report to close it.

   The system again displays the System Manager window.
6. From the System Manager window, click open the Mailbox menu and select

   ```
   > Edit
   ```

   The system displays the Edit Mailbox dialogue box.
7. In the **`Enter the mailbox to edit`** field, type the first mailbox listed in the Mailbox Status window. Click Edit**.**

   The system displays the Mailbox Entry window (Figure 23).

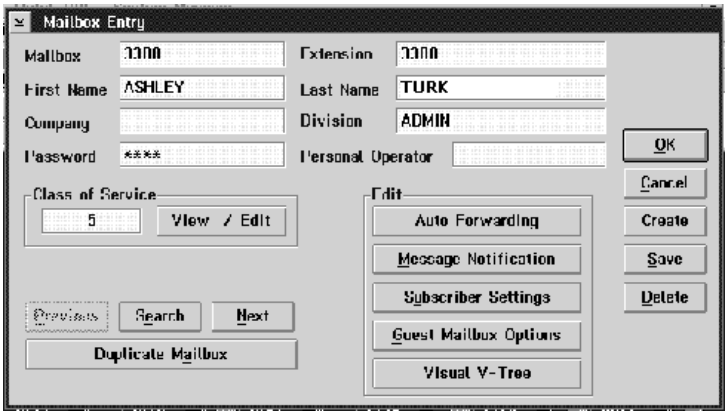



**Figure 23. Mailbox Entry Window**

8. Note the number in the **Class of Service** field.
9. Click Next to display the next mailbox.
10. Repeat Step 8 and Step 9 for 10 or more mailboxes to verify that subscribers are enabled for Octel Analog Networking.
11. If subscribers are not enabled for Octel Analog Networking, do the following:
    a. Click **Class of Service** from the Options menu and choose the class or classes of service assigned to subscribers.
    b. In the **Highest Outgoing Dispatch** area, ensure that **Not Allowed** is not selected.
    c. Select **Octel Analog Networking** (or **OctelNet**).
    d. Click Save and Exit to return to the System Manager window.

## Task 10: Identify the New System to the Interchange System

1. Start at the Avaya Interchange main menu and select

```
> Networking Administration
    > Remote Machine Administration
        > Octel Machine Administration
```

The system displays the Octel Machine Administration screen (Figure 24).

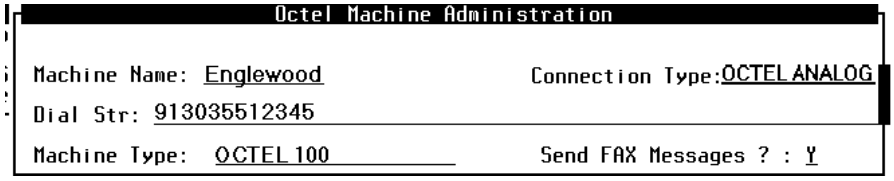


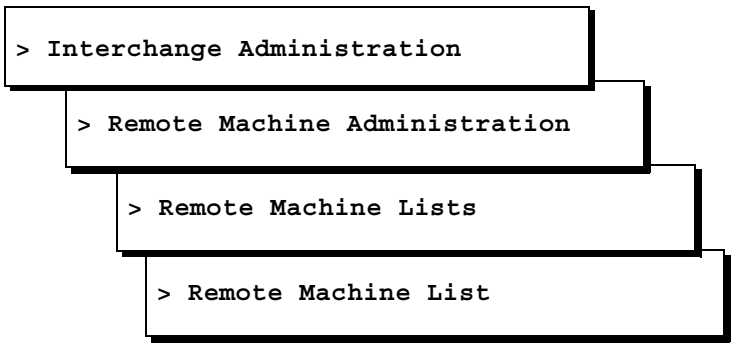

**Figure 24. Octel 100 Machine Administration Screen**

2. In the **Machine Name** field, enter a name for the new system. Check with the administrator of the new system for the exact name. In the example, the name is **Englewood**, which is the location of the system.

   The name must be unique within your Interchange network and must match exactly the name entered in to the Octel 100 system.

   Use F2 (Choices) to view the existing Octel Analog system names to make sure that you enter a unique name.

   **CAUTION:**
   *The name must be unique on both the local Interchange and any other Interchange systems, if you have them, in your network. To make sure that you are using a unique name, you can check the Remote Machine List on all Interchange systems in your network. This screen lists all machine names, including AMIS systems and those systems that use Serenade Digital, AUDIX Digital, and VPIM protocols. The path to access this screen is as follows:*




3. In the **Connection Type** field, enter **OCTEL ANALOG**.
4. In the **Dial Str** field, enter the main phone number (the lead or ‘‘Welcome to’’ number) the Interchange system will use to call the new system. Get this number from your Planning Worksheet. This number could be:
   - A 4-digit or 5-digit number in a private phone network

- An **8** (or another trunk access number) followed by a 7-digit or 10-digit number in a private network
- A public phone number preceded by a **9**

In the example, the number **913035512345** indicates the Interchange must call over the public network (requires **9** for outside access) and the call is long distance (requires **1**).

You can also enter a "**P"** (including quotes) to make the Interchange pause. One pause equals 1.5 seconds. For example, if you were to enter the dial string as **9"P"13035512345**, the effect would be a 1.5-second pause after the Interchange system dialed **9**.

5. In the **Machine Type** field, type **OCTEL 100**.
6. In the **Send Fax Messages** field, type **y** if the system is enabled for fax. If the system is not enabled for fax, type **n**.
7. When you finish entering information for the new system, press F8 (Chg-Keys).
8. Press F2 (Add).

   After you press this key, the system adds the information and returns you to the Machine Name field. You see the following message on your screen:

   ```
   Machine Added, Enter Machine Name, use <CHOICES> for
   list
   ```

# Task 11: Administer Remote Machine Parameters

Perform this task to define other characteristics of the new system, most importantly, the dial plan of the mailboxes on the new system. Use the Dial Plan Mapping Worksheet from Avaya Professional Services or your Dial Plan Mapping Worksheet (see page 20) to complete this task.

To set remote machine parameters, do the following:

1. Start at the Interchange main menu and select

   ```
   > Interchange Administration
     > Remote Machine Administration
       > Remote Machine Parameters
   ```

   The system displays the Remote Machine Parameters screen (Figure 25).

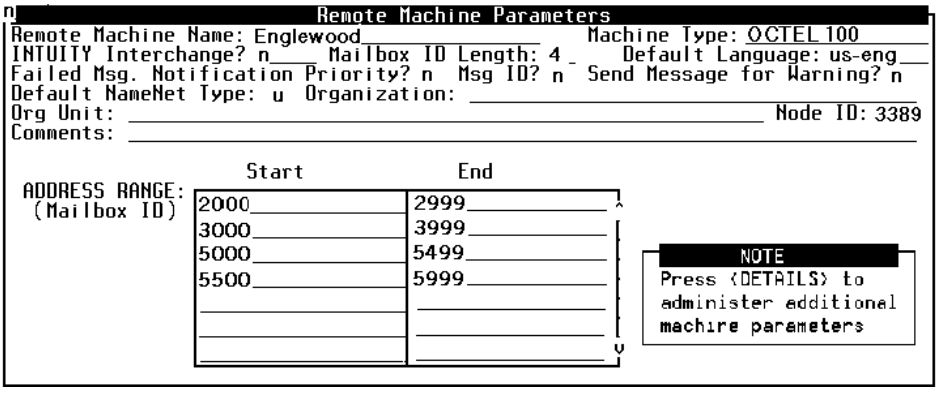



**Figure 25. Remote Machine Parameters Screen**

2. In the **Remote Machine Name** field, type the name of the new system you added in Task 10: Identify the New System to the Interchange System (see page 36), and press ENTER. If you do not remember the exact name, press F2 (Choices) to display a list of valid remote machines. In the example, you would type **Englewood**.

   The system automatically fills in the **Machine Type** field with **OCTEL 100**.

3. In the **Avaya** or **Intuity Interchange?** field, leave the default **n** (no). The new remote system is not an Interchange.

4. In the **Mailbox ID Length** field, type the length of the mailbox IDs of the new system. If a sample mailbox ID (or extension) is**2345**, the length is ***4***.

   In most cases, this number will be **4** or **5**, but the number can be up to 10 digits if, for example, mailboxes have their own incoming trunk group. In the example, the mailbox IDs will be **4** digits long.

5. Leave the defaults in the following fields:

   - **Default Language: us-eng**

     There are no other languages currently supported.

   - **Failed Msg. Notification Priority? n**

     **y** means that a subscriber on this system who sends a message to a subscriber on another system will receive a priority notification if the message is not delivered to that subscriber.

   - **Msg ID? n**

     **y** means that failed message notification, if turned on, will include the original message ID.

   - **Send Message for Warning? n**

**y** indicates that the **original** message is sent back to a subscriber after he or she has sent a message from the Octel 100 system to a subscriber on a remote system that has the Extended Absence Greeting (EAG) warning activated. The return of this message is in addition to the message indicating the actual EAG warning condition.

- **`Default NameNet Type: U`**

  **U** means ‘‘usage-based’’ and indicates that directory entries are temporarily available based on the network traffic of a particular remote system. This field is used when subscribers associated with this new system are stored on a legacy Octel system as NameNet entries.

- **`Organization:`** Leave blank.

  This field is for your information. It can be a record of the name of the organization this system supports, the name of the organization that maintains the system, or any other name you choose.

- **`Org Unit:`** Leave blank.

  This field is for your information. It can be a record of the department number this system supports, the department number that maintains the system, or any other name or number you choose.

- **`Node ID:`** Display only, created by Interchange.

- **`Comments:`** Leave **none.**

  This field is for your information. You might want to enter the name and phone number of the contact person for the new system.

6. In the **`ADDRESS RANGE (Mailbox ID)`** fields, type the address ranges (up to 10) of the new system. While the screen allows you to enter more than 10 ranges, Interchange recognizes only the first 10 ranges you enter. Check your Dial Plan Mapping Worksheet for these ranges.

   **CAUTION:**
   *Do **not** simply use the ranges from your Planning Worksheet or the ranges given to you by the switch administrator for the new system. Also use the Dial Plan Mapping Worksheet that you received from Professional Services or the worksheet that you completed yourself. The ranges you enter here will reappear on the Dial Plan Mapping screen, which you will complete in* *Task 12: Map the New System’s Dial Plan for Interchange (see page 43)**.*

   *In the example (Figure 25), the mailbox ranges reflect the ranges entered on the Planning Worksheet as **2000** to **2999**, **3000** to **3999**, **5000** to **5499**, and **5500** to **5999**. The 5000 to 5999 range was broken out into two ranges to simply illustrate and emphasize the fact that the latter half of the range, **5500** to **5999**, has a different area code and*

*local exchange prefix from that of **5000** to **5499**. You could actually enter the 5000 to 5999 range as a single range on the Remote Parameters screen and then later break down the range on the Dial Plan Mapping screen to deal with the differing prefixes within the range.*

**CAUTION:**

*Be sure that ranges do **not** include the extensions of automated attendants, bulletin boards, and other special mailboxes that are not intended to accept messages. If these mailboxes are included, then messages sent to Enterprise Lists defined by remote machine will fail and will show up in your delivery status reports. More importantly, messages might actually be sent to mailboxes that are not intended to receive E-list messages.*

7. Press ENTER or TAB if you need to add more ranges than those that are available on the initial screen.
8. After you have entered all appropriate address ranges, press F5 (Details).

   The system displays the Machine Profile screen (Figure 26). It contains a display-only name for the **Remote Machine Name** field.

```
                    Octel Analog Machine Profile
     Remote Machine Name: Englewood          Default Community ID: 1

 Subscriber Updates Type: dynamic      UPDATES In? y   UPDATES Out? y

Voiced Names for Dynamic? y  ASCII Name Confirmation? y    Admin Mode? n

  Octel Analog Serial Number: 13023     Dynamic Sub Expiration Days: 90

       Record Delay (Sec): 3          Maximum Simultaneous Connections: 1

 Voiced Name Delay (Sec):    System Mailbox ID: 00000
```

**Figure 26. Octel 100 Machine Profile Screen**

9. In the **Default Community ID** field, leave the default of **1**.

   Additional communities might exist on AUDIX systems in the network. If you want to give permissions to subscribers on this system for specific AUDIX community IDs, use the Subscriber Parameter Administration screen.

10. In the **`Subscriber Updates Type`** field, type the type of update you want for the new system:

**dynamic** This is the *recommended* ongoing setting because this setting helps save storage space on the Octel 100 system.

For the dynamic updates type, each time a subscriber on this system sends a message to a remote subscriber, that remote subscriber is added to the Dynamic Directory List for the Octel 100 system. Likewise, each time a remote subscriber sends a message to a subscriber on the Octel 100 system, that remote subscriber is added to the list.

If, typically within the next 90 days (see Dynamic Sub Expiration Days), no other messages are sent from the Octel 100 system to that remote subscriber, or vice versa, that remote subscriber is removed from the list.

**NOTE:**
If you choose dynamic, you can still use the Directory Views screen to create directory views of specific systems and mailbox ranges on those systems.

**full** Type **full** if you want to perform an initial demand push of all remote subscribers to this new system. A full demand push to the Octel 100 system downloads all registered Interchange subscribers from all networked systems.

By selecting this option, you automatically create, for the new system, a directory view (see the definition that follows) for all subscribers on every node in the Interchange network. When you access the Directory View screen (Figure 28), you will see every system in your Interchange network listed.

**CAUTION:**
*Be sure the new system has enough storage space before using this option. Additionally, full updates can require a great deal of time to run since the communication is over an analog connection.*

**directory view** Use this setting to point to the Directory View screen to update the subscriber directory for specific systems and ranges. Since this selection is a static list, the subscriber directory will include only those subscribers included in the Directory view.

**none** With this option, Interchange will not update the subscriber names list for the new system.

11. In the **`UPDATES: In?`** field, type **y** to allow Interchange to accept updates from the new system.
12. In the **`UPDATES: Out?`** field, type **y** to allow Interchange to send updates to the new system.

13. In the **Voiced Names for Dynamic?** field, type **y** to allow Interchange to send recorded voice names to the new system during dynamic updates, if any. Type **n** if the subscriber update type is *not* dynamic.
14. In the **ASCII Name Confirmation?** field, type **y**. **y** allows Interchange to verify subscriber names on the new system by using connections that the new system has already established when it sends messages and updates to Interchange. This capability helps reduce total time on, and cost of, network communications between systems.
15. In the **Admin Mode?** field, type **n**. This field is normally used for testing.
16. In the **Octel Serial Number** field, type the serial number of the new system. Get this number from your Planning Worksheet (see page 6) or while performing Task 6: Check the Name, Feature Options, and Release Number on the Octel 100 System (see page 25).
17. In the **Dynamic Sub Expiration Days** field, type a number that matches the equivalent value for the Octel 100 system. For the Octel 100, this value is displayed in the **Maximum Number of Days for NameNet Records** field on the Octel 100 system's NameNet Parameters window. The default for Interchange is **90**, but the default on the Octel 100 system is **180**, so the value at one or both systems will need to be changed so the values match.

    This number is the number of days a dynamically added remote subscriber stays in the new system's Dynamic Directory List without anyone sending messages from the new system to that remote subscriber or without that remote subscriber sending messages to the new system.
18. In the **System Mailbox ID** field, leave the field blank.
19. Press F3 (Save).

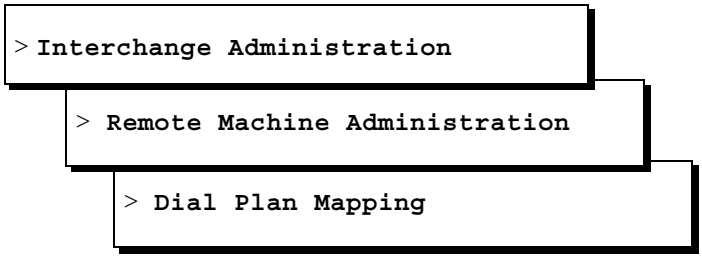
# Task 12: Map the New System's Dial Plan for Interchange

Interchange uses a single-length dial plan for its network. You will have to map the dial plan of the new system to the Interchange network address length.

To do this mapping, you need the Dial Plan Mapping Worksheet from Professional Services or a worksheet you completed on your own. These worksheets list the area codes and central office prefixes that can be used in conjunction with the new system's dial plan to create Interchange network addresses, usually addresses that match external direct dialing of the new system's mailboxes.

To administer the remote machine dial plan, do the following:

1. Start at the Interchange main menu and select




The system displays the Dial Plan Mapping screen (Figure 27).

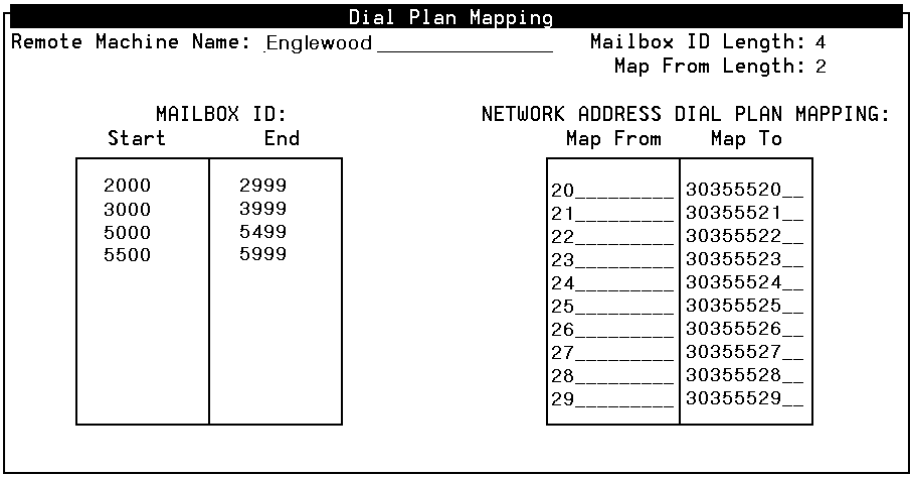



**Figure 27. Dial Plan Mapping Screen**

2. In the **Remote Machine Name** field, type the name of the new system and press ENTER. If you do not remember the exact name, press F2 (Choices) to display a list of valid remote machines. In the example, you would type **Englewood**.

   After you press ENTER, the system displays information in the **Mailbox ID Length** and **MAILBOX ID Start** and **End** fields. You had entered this information previously in the Remote Machine Parameters screen.

3. In the **Map From Length** field, type the number of digits, within each mailbox ID, for which Interchange will substitute digits. Check the list of **MAILBOX ID**s. If you have a single range (for example, **30000** to **60000**) or multiple ranges that use the same prefix, enter **0** in the **Map From Length** field. In this case, you can leave the **Map From** column for the range blank.

If you have more than one range (usually to accommodate different area codes or DID prefixes), and the first digit of the **Start** and **End** fields for each range are unique, enter **1** in the **Map From Length** field. Also enter **1** if the last digit of the **Map From** prefix has to replace the first digit of the **MAILBOX IDS**.

If any ranges share first digits but have different prefixes, then you might need to enter **2** or higher in the **Map From Length** field.

**CAUTION:**

*Be careful about using **0** in the **Map From Length** field. If you change your dial plan later (for example, if you add more extensions that have a different DID prefix) and need to add Mailbox ID ranges for this system, you will have to remove the system from the Interchange network and add it again with the new dial plan. This task could entail a significant amount of work.*

*Therefore, if you anticipate the need to change the dial plan for this endpoint in the future, you might want to use a Map From Length of **1** or more. See Figure 10, which illustrates the alternative to Map From Length **0** in anticipation of future changes.*

4. In the first **Map From** field, type the digit (or digits) that match the first digit (or digits) of the first **MAILBOX ID Start** and **End** range. This field must be blank if the **Map From Length** field is **0**. Otherwise, the number of digits you enter must match the number of digits specified in the **Map From Length** field.

   In the example, the first field contains **20**, because the mailbox ID range starts with 20, and these first two digits will be replaced with the last two digits of the **Map To** digit string.

5. In the first **Map To** field, type the area code and DID prefix of the mailbox IDs. Check your Planning Worksheet for these numbers. The last digits in this field must match the digits in the **Map From** field.

   In the example, the field contains **30355520**, with the last two digits, **20,** as substitutes for the first two digits **20** of the mailbox range, thereby creating mailbox IDs of 10 digits. For example, the first mailbox would have an Interchange network address of **303-555-2000**, and the last mailbox in this range would have an address of **303-555-2099**.

   **NOTE:**

   If the **Map From** field is blank, the **Map To** digits will simply be added to the mailbox IDs to total 10 digits.

6. Repeat Step 4 and Step 5 for each MAILBOX ID range.

**NOTE:**
There can be more than one DID prefix for the new system. Again, check your Planning Worksheet or consult with your switch administrator for the new system.

In the example (see Figure 12 for a full illustration), the range **5500** to **5999** has the area code **720** and the local exchange prefix of **551**, which is different than the prefix for the range **5000** to **5499**.

7. Press F3 (Save).

**CAUTION:**
*Use F7 (Options) only as described later in this document. Do not use F7 to delete or replace subscribers without first contacting your service support representatives, as the options can cause unexpected negative results.*

# Task 13 (Optional): Administer Directory Views

The Directory View screen allows you to define, for the new system, the other remote systems for which Interchange will provide updates to the new system. You can specify a range of mailbox IDs from which to accept update information.

**NOTE:**
If you selected **full** as the Subscriber Update Type on the Machine Profile screen (Figure 26), you do not need to administer Directory Views. Interchange will automatically include *all* remote systems in the Interchange network in the new system's Directory Views. If you selected **directory views** as the Subscriber Update Type, you must administer Directory Views. If you selected **dynamic** as the Subscriber Update Type, you do not need to administer Directory Views.

To administer directory views, do the following:

1. Start at the Avaya Interchange main menu and select

```
> Interchange Administration
    > Remote Machine Administration
        > Directory Views
```

The system displays the Directory View screen (Figure 28).

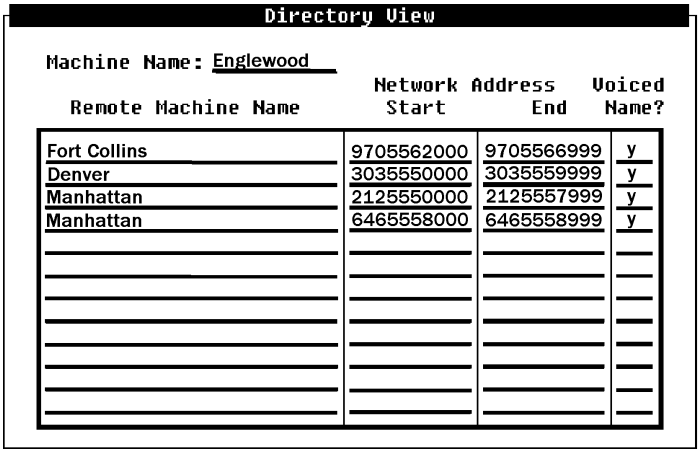



**Figure 28. Directory View Screen**

2. In the **Machine Name** field, type the name of the new system and then press ENTER.

   The system displays the current directory view information, if information exists, for this machine. If you selected **full** as the Subscriber Update Type for this system on the Machine Profile screen (Figure 26 on page 41), Interchange will display all remote systems in the Interchange network.

3. Press F3 (Continue).

4. In the **Remote Machine Name** column, type the name of another system in the Interchange network. Interchange updates the subscriber list for the new system with subscribers from this remote system.

   In the example, **Fort Collins**, **Denver**, and **Manhattan** are systems whose subscribers Interchange will dynamically include in, or remove from, the new system's remote subscriber directory.

5. In the **Network Address: Start** and **End** fields, type the first and last subscriber addresses to form a range of addresses on the remote system. These addresses must match addresses as defined in the Dial Plan Mapping screen for this remote system.

   In the example, the Manhattan system, as defined in its Dial Plan Mapping screen, has two mailbox ranges, one of **0000** to **7999**, with **Map To** entries of **2125550** through **2125557.** The other mailbox range for Manhattan is **8000** to **8999**, with a **Map To** entry of **6465558**. (This second range is the result of adding a different set of extensions in Manhattan, for which a different DID prefix had to be used.) As a result, the ranges of addresses for the Directory View are **2125552000** to **2125557999** and **6465558000** to **6465558999**.

6. In the **Voiced Name?** field, leave the default of **y** to have each subscriber's voiced name stored in the remote subscriber directory.
7. Press F3 (Save).
8. Press F4 (Reselect) to enter another remote machine and repeat this procedure, or press F6 (Cancel) to exit the screen and return to the Remote Machine Administration menu.

## Adding All Machines

If you have many systems in the Interchange network, and you want to add most or almost all remote systems to the new system's directory view, you can add all machines and then delete those systems that you do not want to be included.

**NOTE:**
Adding all machines to Directory Views is the equivalent of defining a full subscriber update type for the new system.

To add all machines listed in a directory view, do the following:

1. From the Directory View screen, press F7 (Options).

   The system displays the Options menu (Figure 29).

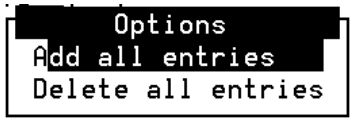



**Figure 29. Options Menu**

2. Select **Add all entries**.

   The system displays the Confirm window (Figure 30).

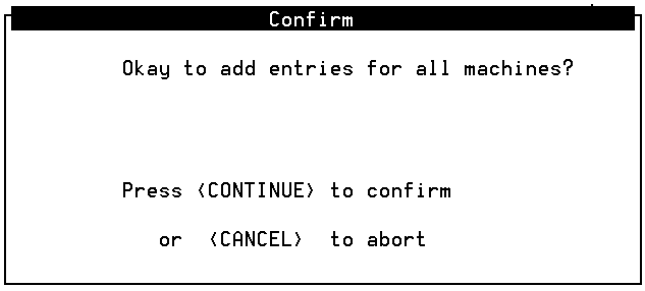



**Figure 30. Confirm Window**

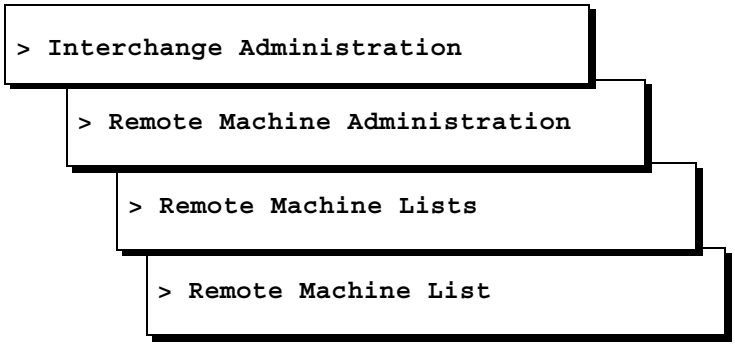
3. Press F3 (Continue) to add all machines or F6 (Cancel) to return to the Directory View screen.
4. Press F6 (Cancel) until you return to the Avaya Interchange main menu.

# Task 14: Verify That the Endpoint Has Been Administered

Use the Remote Machine List and Remote Machine Dial Plan List to verify that you have appropriately added the new messaging system.

To access the Remote Machine List, do the following:

1. Start at the Interchange Administration menu and select




The system displays the Remote Machines List (Figure 31).

Remote Machine List

| Machine Name | Connection | Rate | Chan | Subscribers |
|---|---|---|---|---|
| A1 | AMIS | | | 1 |
| A10 | AMIS | | | 1 |
| A11 | AMIS | | | 1 |
| A12 | AMIS | | | 1 |
| A13 | AMIS | | | 1 |
| A14 | AMIS | | | 1 |
| A2 | AMIS | | | 1 |
| A3 | AMIS | | | 1 |
| A4 | OCTEL ANALOG | | | 1 |
| A5 | AMIS | | | 1 |
| A6 | AMIS | | | 1 |
| A7 | AMIS | | | 1 |
| A8 | TCP/IP | | | 1 |
| Englewood | OCTEL ANALOG | | | 1 |

**Figure 31. Remote Machine List**

2. In the **Machine Name** column, look for the name of the new system. The name would be **Englewood** in the example.

3. Verify that the **Connection** column for your new system says **OCTEL ANALOG**.
4. Press F6 (Cancel) to return to the Remote Machine List menu.
5. From the Remote Machine List menu, select

```
> Remote Machine Dial Plan List
```

The system displays the Remote Machine Dial Plan List (Figure 32).

Remote Machine Dial Plan List

| Machine Name | Type | Mailbox ID Start | Mailbox ID End | Extension Mapping From | Extension Mapping To |
|---|---|---|---|---|---|
| A1 | AMIS | 6148682778 | 6148682778 | | |
| A10 | AMIS | 6148682787 | 6148682787 | | |
| A11 | AMIS | 6148682788 | 6148682788 | | |
| A12 | AMIS | 6148682789 | 6148682789 | | |
| A13 | AMIS | 6148682790 | 6148682790 | | |
| Englewood | OCTEL 100 | 2000 | 2999 | 20 | 30355520 |
| Englewood | OCTEL 100 | 3000 | 3999 | 21 | 30355521 |

**Figure 32. Remote Machine Dial Plan List Screen**

6. In the **Machine Name** column, locate the name of the new system.
7. Verify that the data in every column is correct.
8. Press F6 (Cancel) to exit the Remote Machine Dial Plan List.

# Task 15: Add Remote Subscribers to Interchange

Add remote subscribers to Interchange so that Interchange can pass on messages to those subscribers.

The following options for adding subscribers are available:

- Bulk Subscriber Administration by FTP File (recommended)
- Universal Self-Registration Agent (recommended)
- Sending Messages Through Interchange

- Adding Subscribers Through the Subscriber Parameters Administration screen
- Bulk Subscriber Administration by Range

Use the Demand Remote Update option only if the number of subscribers on the new system is small (usually fewer than 40). Otherwise, with a large number of subscribers, using this option can take a long time.

Avaya does *not* recommend the use of bulk administration by range to add subscribers because this method reserves disk space for every extension or mailbox ID included in the range, even if no subscribers have been administered within the range. Use this option only as a last resort.

## Adding Subscribers Through Self-Registration

Avaya recommends subscriber self-registration for Octel Analog Networking systems. For self-registration, you notify each subscriber to send his or her voiced name to Interchange, which registers the subscribers' mailboxes and captures the voice recordings of their names so that the names can be sent across the network with Octel 100 messages.

For self-registration, do the following:

1. Enter the self-registration phone number in the **Self-Registration Agent ID** field on the General Parameters Screen (see page 24), as indicated in the task Task 5: Check the Interchange Serial Number, If Any (see page 24).
2. Use a broadcast message, recorded by the administrator of the new messaging system, to notify subscribers of self-registration.

   Instructions might tell each subscriber to:

   a. Log in to the messaging system.

   b. Record only his or her name in a message.

   c. Send the message to the self-registration phone number.

If subscribers fail to self-register, they will fail to receive messages from other messaging systems. However, if subscribers on the new system later send messages through the Interchange network, Interchange can identify them and register those subscribers for the new system. In this latter case, Interchange will not send the voiced names.

## Adding Subscribers Through FTP

Avaya also recommends the use of FTP to upload the names of subscribers on the new system so that other subscribers within the network can address messages by using the names of the new subscribers.

To use FTP to load subscriber lists to Interchange, do the following:

1. Create an ASCII file with a text-only tool such as NotePad.
2. Give the file a name in the format **`name.add`** (in the example, the file name would be **Englewood.add**).
3. Using the following format, type subscriber names into the file:

   *machine_name*|*mailbox_ID*|*lastname,firstname*|*community_ID*||

   **`mailbox ID`** is the actual mailbox ID as it appears on the new messaging system. **`community_ID`** can be blank or **1**, unless the new messaging system uses more than one community ID. The "pipe" symbol (|) is used to separate units of data and normally appears on your keyboard on the same key as the backslash (\).

   Our example might have an entry such as:

   **Englew|22444|jones,bob|1||**

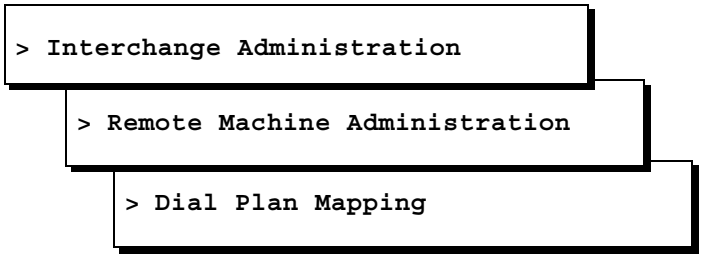
   or leave the community ID field blank as in:

   **Englew|22444|jones,bob|||**

   **CAUTION:**
   *Be sure there are no blank spaces after the comma, pipe symbols, or at the beginning or end of each entry. Also, the names are case sensitive.*

4. Press ENTER or the equivalent of a carriage return on your keyboard.
5. Repeat step 3 for every subscriber currently administered on the new messaging system.
6. Save the file.
7. Upload the file to Interchange by using the following steps. You can use an FTP tool you are familiar with. However, be sure to transfer the file as an *ASCII* file, *not* as a binary file.
   a. In the tool, enter the IP address of the Interchange.
   b. Enter the user ID *icftp* and password for the Interchange *iclog/icftp* directory.
   c. Select the *amis_sub* subdirectory and move the FTP file, *as an ASCII file*, to the directory.
   d. When the file is uploaded, exit from your FTP tool and continue with Step 8.

8. Start at the Interchange main menu and select




The system displays the Dial Plan Mapping screen (Figure 27).

9. Press F7 (Options).

The system displays the Options menu.


10. Select **Add subscribers from file** and press ENTER.

The system displays the Confirm window (Figure 33).

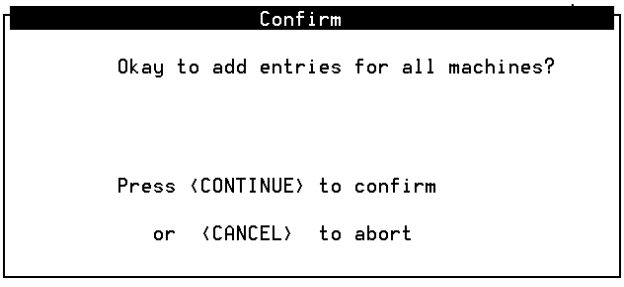



**Figure 33. Confirm Window**

11. Press F3 (Continue).

The system will add all subscriber names. Additionally, Interchange changes the name of file *filename.add* to *filename.add.done* and adds a file called *filename.add.log.* In the example, the files would be called **Englewood.add.done** *and* **Englewood.add.log**.

12. Press F6 (Cancel) to return to the Interchange Administration menu.

13. Access the Interchange FTP directory with your FTP tool again.

14. Download to your computer from Interchange the file *filename.add.log.*

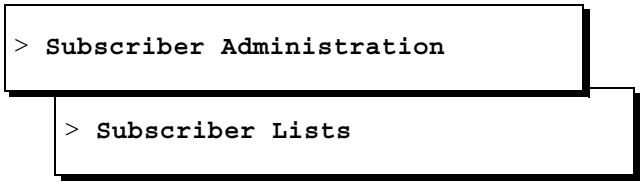
15. Open the *filename.add.log* file in an ASCII text editor such as NotePad to see if there were any problems with adding subscribers.

### Adding Subscribers to Interchange with a Demand Remote Update

You can add remote subscribers to Interchange by using the Remote Update capability of Interchange instead of the FTP file upload. See Testing with a Demand Remote Pull (see page 55).

## Task 16: Verify the Subscriber Update

1. From the Interchange Administration menu, select




The system displays the Subscriber Lists menu (Figure 34).

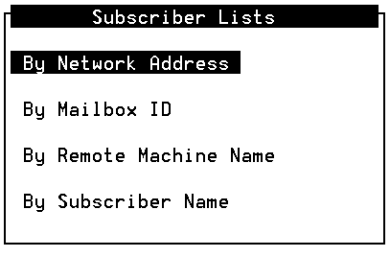



**Figure 34. Subscriber Lists Menu**

2. Select **By Remote Machine Name**.

   The system displays the Subscriber List By Remote Machine Name.

3. Check the number of subscribers to see if the number matches the number of subscribers administered on the Octel 100 system. If you ran a demand remote update, also check to see that voiced names appear for subscribers.

4. Press F6 (Cancel) to return to the Interchange Administration menu.

## Task 17: Test the Connection

There are two tests you can run:

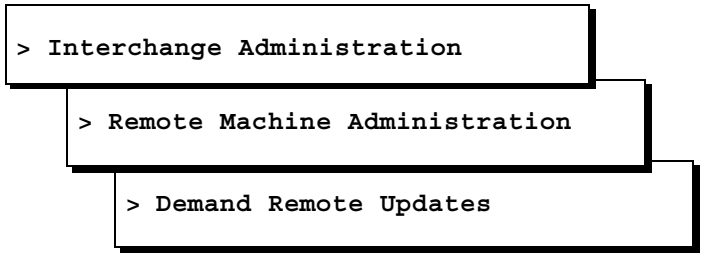
## Testing with a Demand Remote Pull

To test the connection between Interchange and the Octel 100 system, you can add remote subscribers to Interchange by using the Remote Update capability of Interchange. This remote pull is also an alternative to updating Interchange through the FTP file upload if you choose to pull all subscribers to Interchange. However, see the following Caution.

**CAUTION:**
*Since the demand pull uses an analog connection, this update can take a long time, approximately 14 to 21 seconds per subscriber.*

To run a remote update, do the following:

1. Start at the Interchange main menu and select




The system displays the Demand Remote Update screen (Figure 35).

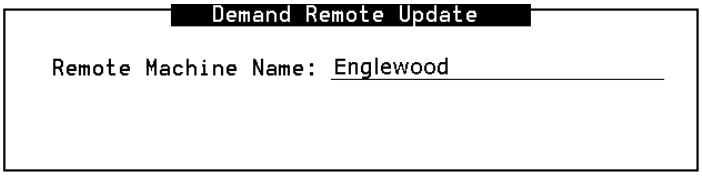



**Figure 35. Demand Remote Update Screen**

2. Type the name of the new system and press ENTER.

   The system displays the Range for Demand Remote Pull screen (Figure 36).

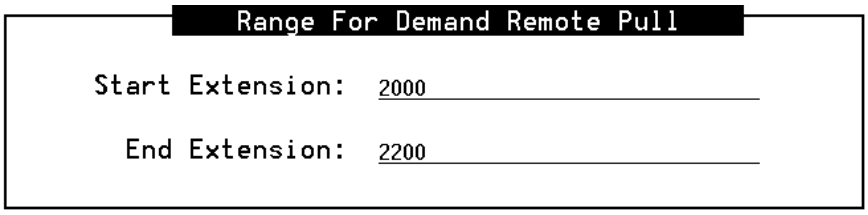



**Figure 36. Range for Demand Remote Pull Screen**

3. Enter the starting and ending extensions for a range of addresses for which the update will be executed. Since the update will require 14 to 21 seconds per subscriber, select a small range for the test.
4. Press F3 (Continue).

   The system displays the Demand Remote Pull screen (Figure 37).

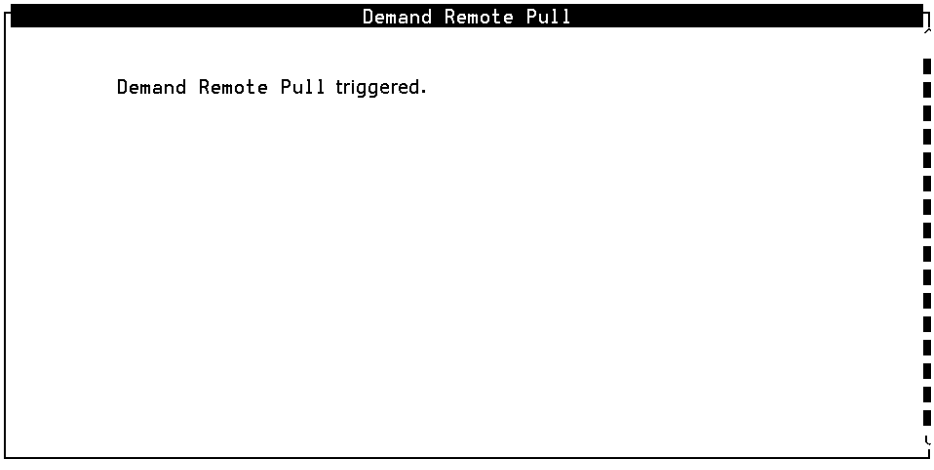



**Figure 37. Demand Remote Pull Screen**

The system will now update the Interchange with any ASCII or voiced names which have been added, deleted, or changed for the range of extensions you selected.

**NOTE:**
You can press F5 (Abort) to stop the demand remote update or F6 (Cancel) to return to the previous screen and re-enter an extension range.

5. Press F6 (Cancel) until you return to the Interchange Administration menu.

### Sending Test Messages

To test the connection between Interchange and the new messaging system, do the following:

1. Log in to a test voice mailbox of the new messaging system. Either you or the system administrator of the new messaging system can do this. For the test mailbox, check the **End Node Test Mailboxes** identified in your Planning Worksheet (see page 6).
2. Self-register the voice mailbox with Interchange by completing steps a and b.

   **NOTE:**
   Self-registration is unnecessary if you performed a demand remote pull of the new system's subscribers. In this case, go to Step 3.

   a. Create a test message that contains only the name of the mailbox.
   b. Send the message to the Self-Registration address you created in Task 15: Add Remote Subscribers to Interchange (see page 50).
3. Log in to a voice mailbox on a *different* messaging system in the Interchange network.
4. Create a test message (for example, "This is a test message from Bob. Please message me back").
5. Address and send the message to the test mailbox on the new messaging system. The address includes the whole Interchange network address, which includes the Map To digits, as defined in Task 12: Map the New System's Dial Plan for Interchange (see page 43), and the remaining digits of the specific mailbox.
6. In the test mailbox on the new system, listen to the test message sent in Step 5. Also, in the test mailbox, send a reply to the test message back to the mailbox on the other system.
7. Listen to the reply in the mailbox you logged in to in Step 3.

## Task 18 (Optional): Manually Update the Octel 100 System

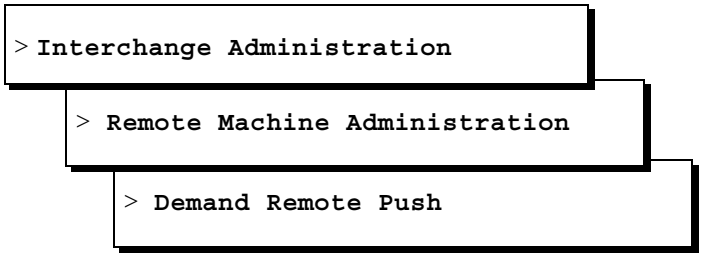
**NOTE:**
The following procedure can require a great deal of time to complete, since the communication is over an analog connection. As a result, full and Directory View updates are generally not recommended for systems that use Octel Analog Networking.

If you want to have all Interchange remote subscribers (if full updates are specified) or the subscribers you defined in Directory Views (if any) immediately

available on the new system for addressing by name, perform a demand remote push on the Octel 100 system by using the following steps.

To perform a demand remote push, do the following:

1. Start at the Interchange main menu and select




The system displays the Demand Remote Push screen (Figure 38).

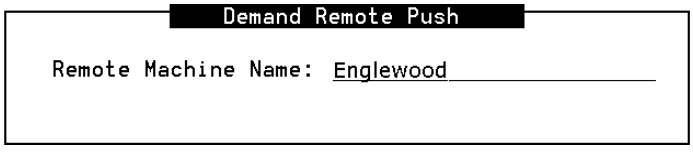



**Figure 38. Demand Remote Push Screen**

2. Type the system name, or press F2 (Choices) to display a list of valid remote machines.
3. Press F3 (Continue).

   The system displays the following Demand Remote Push screen (Figure 39).

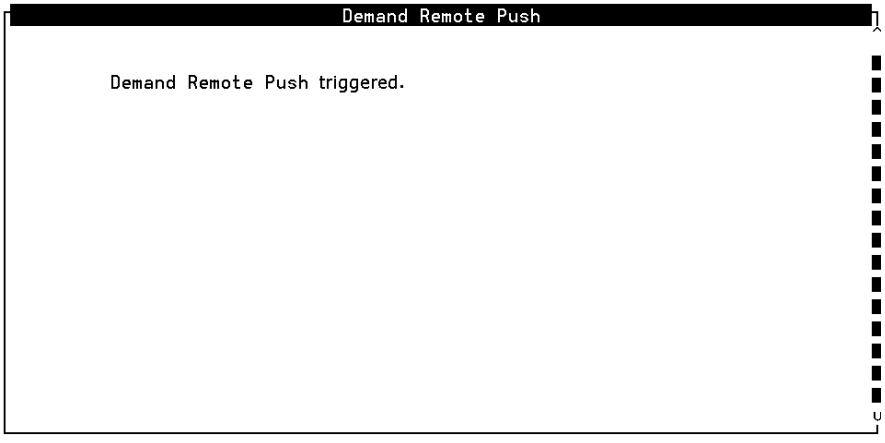



**Figure 39. Demand Remote Push Screen**

Interchange will now update the Octel 100 system with any ASCII or voiced names on the Interchange network.

**NOTE:**
You can press F5 (Abort) to stop the demand remote push or F6 (Cancel) to return to the previous and re-enter an extension range.

4. Press F6 (Cancel) until you return to the Interchange Administration menu.

# Task 19: Update Remote Systems for Subscribers on the New System

Once you have added the new system to the Interchange network, the other remote systems in the network need to recognize the subscribers on the new system for name addressing. The method you use to update a remote system for the new system's subscribers depends on what type of system the remote system is and how you have administered the Subscriber Update Type for that system (see Table 1).

**NOTE:**
If, over a short period of time, you are adding more than one system to your Interchange network, you might want to wait until all systems have been added before manually updating the existing systems in your network.

**Table 1. Remote Node Update Options**

| Update Type | Remote System Type | Steps to Update a Remote System |
|---|---|---|
| Full | Intuity AUDIX TCP/IP, DCP, RS-232 | If you have the **full** Subscriber Update Type turned on for an Intuity AUDIX remote system, perform for that remote system Manually Update an Intuity AUDIX System (see page 60) (do this during off hours for RS-232 systems). |
| | Aria, Serenade, and Octel 100 | If you have the **full** Subscriber Update Type turned on for an Aria, Serenade, or Octel 100 remote system, perform for that remote system the same steps as in Task 18 (Optional): Manually Update the Octel 100 System (see page 57). If the remote system uses Octel Analog Networking, complete this task during off hours. |
| | VPIM/AMIS | Full updates are not supported. |

**Table 1. Remote Node Update Options**

| | | |
|---|---|---|
| Dynamic | All systems | No action is required if the remote system already uses dynamic updates.<br><br>Subscribers on the new system become known to subscribers on the existing remote system as subscribers from the new system send messages to subscribers on the remote system or vice versa. Of course, with this method, subscribers on the remote system cannot address a subscriber by name on the new system until a message has been sent to or from that subscriber. |
| Directory Views | Intuity AUDIX TCP/IP, DCP, RS-232 | If you have directory views turned on for an Intuity AUDIX remote system, add the new system to the Directory Views screen for the Intuity AUDIX. Then, complete for that remote system the same steps as in Manually Update an Intuity AUDIX System (see page 60) (do this during off hours for RS-232 systems). |
| | Aria, Serenade, and Octel 100 | If you have directory views turned on for an Aria, Serenade, or Octel 100 remote system, add the new system to the Directory Views screen for the remote system. Then, perform for that remote system the same steps as in Task 18 (Optional): Manually Update the Octel 100 System (see page 57). These steps are identical for all Aria, Serenade, and Octel 100 systems. If the remote system uses Octel Analog Networking, complete this task during off hours. |
| | VPIM/AMIS | Directory Views are not supported. |

## Manually Update an Intuity AUDIX System

**NOTE:**
You perform this task on the Intuity AUDIX endpoint itself, *not* on Interchange. This task applies only to Intuity AUDIX systems that have full or directory views for their subscriber update types. For Aria, Serenade, and Octel 100 remote nodes that use full or directory view updates, see Task 18 (Optional): Manually Update the Octel 100 System (see page 57) for instructions.

To update an Intuity AUDIX system in the network with subscribers in the system you just added, use the following steps:

1. Starting from the Intuity AUDIX main menu, select

   ```
   >AUDIX Administration
   ```

   The system displays a blank AUDIX screen.

2. Enter **list measurements feature day** at the **`enter command:`** prompt.

   The system displays the Feature Daily Traffic screen.

3. Write down the current number of remote users.

4. Press F6 (Cancel).

   The cursor returns to the command line.

5. Enter **get remote_updates *remote_machine_name*** at the **`enter command:`** prompt, where ***remote_machine_name*** is the name of Interchange.

   In the example, the name for Interchange is **central**.

   The system displays the Remote Update Request screen (Figure 2).

```
fort collins          Active          Alarms:  mwA                    Logins: 4
get remote_updates central                                          Page 1 of 1
                          REMOTE UPDATE REQUEST


Request Full Update from Machine:  central

            Status of Last Update:  completed

            Last Completed Update:  01/10/01 19:54

    Press [Enter]  for Full Update Request
          [Cancel] to Abort









enter command: get remote_updates central
```

**Figure 2. Intuity AUDIX Remote Update Request Screen**

6. Press ENTER to begin the remote update or press F6 (Cancel).

   The system begins the remote update.

**NOTE:**
The update might take some time, possibly hours, depending on the number of users on the remote system.

7. When the remote update is complete, enter **list remote extensions *remote_machine_name*** at the **`enter command:`** prompt, where ***remote_machine_name*** is the name for Interchange.

   The system displays the List Remote Extensions screen.

8. Check that the remote users of Interchange's new system are listed.
9. Enter **list measurements feature day** at the **`enter command:`** prompt.

   The system displays the Feature Daily Traffic screen.

10. Verify the new number of remote users.
11. Enter **display administration-log** at the **`enter command:`** prompt.

    The system displays the Administration Log screen.

12. Verify that no conflicts or problems occurred with the remote update.
13. Press F1 (Cancel).

    The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

14. Enter **exit** at the **`enter command:`** prompt to leave AUDIX Administration.