Cisco Unity Voice-Mail Port Adjustments

Migration from Cisco CallManager 3.3(3) to Cisco Unified CallManager 4.0(1) required adjustments to the voice-mail port settings. This appendix describes the changes required to Cisco Unity voice-mail ports upon upgrade to Cisco Unified CallManager, Release 4.x. The appendix covers the following topics:

- Cisco Unity Voice-Mail Port Changes, page C-1
- Changes After Upgrading to Cisco Unified CallManager 4.0 or Later Releases, page C-2
- Before Upgrading to Cisco Unified CallManager 4.0 or Later Releases, page C-3
- Cisco Unity Failover Voice-Mail Port Setup, page C-4

Cisco Unity Voice-Mail Port Changes

This section describes various voice-mail port configurations in Cisco Unified CallManager. Use the scenarios and procedures that follow to ensure that migration from Cisco CallManager 3.3(x) to Cisco Unified CallManager 4.0 or later releases properly migrates the voice-mail port settings. This section describes voice-mail port configurations in Cisco CallManager 3.3(x) as well as the expected configuration after migration to Cisco Unified CallManager 4.0 or later releases. This section also describes the voice-messaging system changes that take place after you upgrade your system to Cisco Unified CallManager 4.0 or later releases.

This section contains the following topics:

- Changes After Upgrading to Cisco Unified CallManager 4.0 or Later Releases, page C-2
- Before Upgrading to Cisco Unified CallManager 4.0 or Later Releases, page C-3
- Cisco Unity Failover Voice-Mail Port Setup, page C-4

Changes After Upgrading to Cisco Unified CallManager 4.0 or Later Releases

You will need to reconfigure a few items to maintain your original voice-mail port functionality, depending on what type of scenario you have set up. You must also change your setup as described in this section.

Things That May Affect Your Setup

If your last voice-mail port is forwarded to a route pattern (gateway or intercluster trunk [ICT]), this configuration will no longer exist after the upgrade. You will need to add the intercluster trunk or gateway to a route group, then add the route group to the corresponding route/hunt list of the route patterns that are attached to the voice-mail pilot number. The route group represents the last member of the route/hunt list.

Note Cisco does not recommend use of the Broadcast distribution algorithm in conjunction with the implementation of voice-mail ports for Cisco Unity.

Line Group Forwarding and Cisco Unity Failover

If you are using the recommended Cisco Unity failover voice-mail port setup, you need to configure the following values for the line groups that are used for the voice-mail ports:

- No Answer: Skip Remaining members and go directly to next group.
- Busy: Try Next member, but do not go to next group.
- Not Available: Skip Remaining members and go directly to next group.

The descriptions of the various scenarios throughout this document provide specific information about these values.

If your final voice-mail port is configured to go to an operator, and the operator is set up to Call Forward No Answer (CFNA) and Call Forward Busy (CFB) back to the voice-mail pilot, you will no longer be able to CFB or CFNA back to the same voice-messaging system. You can add an additional line group that contains the operator line to the voice-mail hunt list.

After an upgrade, the system places the line group where the failover voice-mail ports reside in the route/hunt list that is associated with the hunt list pilot number. You need to manually select the hunt options on the basis of your original configuration.

Changes That You Will Notice After the Upgrade

After the upgrade from previous versions of Cisco CallManager to Cisco Unified CallManager 4.0 or later releases, you will notice the following changes:

- The Cisco Voice Mail Port Configuration window no longer has forwarding fields.
- Voice-mail ports now use line groups, route/hunt lists, and hunt pilot numbers.The system creates these entities automatically after the upgrade if the database contained an existing voice-mail port setup. You need to select the hunt options on the basis of your original configurations.
- The pilot number now represents a route pattern with the same number as the first voice-mail port, but in a different partition. The partition that is used for the pilot number was originally the partition that associated with the first voice-mail port.
- The system places voice-mail ports in a newly created partition during the upgrade process.
- The system places voice-mail ports that are used for MWI and for outbound calls on their own separate line groups, route/hunt lists, and hunt list pilot numbers.

Before Upgrading to Cisco Unified CallManager 4.0 or Later Releases

Perform the following step on the voice-mail ports to ensure proper migration:

1. **Important:** Remove any call forwarding that is set on voice-mail ports that are used only for outbound calls and message waiting indication.

Cisco Unity Failover Voice-Mail Port Setup

Two supported failover configurations exist. The following white paper discusses these failover configurations: *Cisco Unified CallManager Port Configuration for Cisco Unity Failover (Cisco Unity Versions 4.0 and 3.1(2) and Later)*.

This section provides example configurations in Cisco CallManager 3.3(x) and then outlines what each configuration should resemble after an upgrade to Cisco Unified CallManager 4.0 or later releases occurs. Some manual configuration needs to take place after an upgrade to Cisco Unified CallManager version 4.0 or later releases. This section also outlines these changes.

This section covers the following topics:

- Cisco Unity Failover Configuration 1 in Cisco CallManager 3.3(x) (Recommended), page C-4
- Cisco Unity Failover Configuration 1 After Migration to Cisco Unified CallManager 4.0 or Later Releases (Recommended), page C-5
- Single Cisco Unity Server with Single Cisco Unified CallManager Cluster, page C-8
- Single Cisco Unity Server with Single Cisco Unified CallManager Cluster in Cisco CallManager 3.3(x), page C-8
- Single Cisco Unity Server with Single Cisco Unified CallManager Cluster After Migration to Cisco Unified CallManager 4.0 or Later Releases, page C-8

Cisco Unity Failover Configuration 1 in Cisco CallManager 3.3(x) (Recommended)

In this example, on each server, four ports handle incoming calls, and two ports handle outbound calls and MWI. PhoneCSS contains partition(s) that are assigned to subscriber phones, as well as VMPilotNumberPT. VMRestrictedCSS contains only VMRestrictedPT, which is assigned only to VM ports.

Primary Cisco Unity server VM ports configuration:

```
Port 1: (Line: 2001) Device Settings - CSS = PhoneCSS
Port 1: (Line: 2001) Directory Number Settings - Partition =
VMPilotNumberPT, CSS = VMRestrictedCSS
Ports 2 to 6: (Lines: 2002-2006) Device Settings - CSS = PhoneCSS
Ports 2 to 6: (Lines: 2002-2006) Directory Number Settings - Partition
= VMRestrictedPT, CSS = VMRestrictedCSS
Ports 1 to 6: (Lines: 2001-2006) Call Forwarding Settings on Busy and
No Answer CSS = VMRestrictedCSS
```

```
Line: 2001, CFNA = 3001, CFB = 2002
Line: 2002, CFNA = 3001, CFB = 2003
Line: 2003, CFNA = 3001, CFB = 2004
Line: 2004, CFNA = 3001, CFB = 2001
Line: 2005, CFNA = 2001, CFB = Blank (for outbound calls and MWI)
Line: 2006, CFNA = 2001, CFB = Blank (for outbound calls and MWI)
```

The following example shows secondary Cisco Unity server VM ports (call does not get sent to operator if all ports are busy or ring no answer [RNA]) configuration:

```
Ports 1 to 6: (Lines: 3001-3006) Device Settings - CSS = PhoneCSS
Ports 1 to 6: (Lines: 3001-3006) Directory Number Settings - Partition
= VMRestrictedPT, CSS = VMRestrictedCSS
Ports 1 to 6: (Lines: 3001-3006) Call Forwarding Settings on Busy and
No Answer CSS = VMRestrictedCSS
Line: 3001, CFNA = 3002, CFB = 3002
Line: 3002, CFNA = 3003, CFB = 3003
Line: 3003, CFNA = 3004, CFB = 3004
Line: 3004, CFNA = 3001, CFB = 3001
Line: 3005, CFNA = 3001, CFB = Blank (for outbound calls and MWI)
Line: 3006, CFNA = 3001, CFB = Blank (for outbound calls and MWI)
```

The following example shows secondary Cisco Unity server VM ports (call gets sent to operator if all ports are busy or RNA) configuration:

```
Ports 1 to 6: (Lines: 3001-3006) Device Settings - CSS = PhoneCSS
Ports 1 to 6: (Lines: 3001-3006) Directory Number Settings - Partition
= VMRestrictedPT, CSS = VMRestrictedCSS
Ports 1 to 6: (Lines: 3001-3006) Call Forwarding Settings on Busy and
No Answer CSS = VMRestrictedCSS
Line: 3001, CFNA = 3002, CFB = 3002
Line: 3002, CFNA = 3003, CFB = 3003
Line: 3003, CFNA = 3004, CFB = 3004
Line: 3004, CFNA = operator DN, CFB = operator DN
Line: 3005, CFNA = 3001, CFB = Blank  (for outbound calls and MWI)
Line: 3006, CFNA = 3001, CFB = Blank  (for outbound calls and MWI)
```

Cisco Unity Failover Configuration 1 After Migration to Cisco Unified CallManager 4.0 or Later Releases (Recommended)

In this example, on each server, four ports handle incoming calls, and two ports handle outbound calls and MWI. PhoneCSS contains partition(s) that are assigned to subscriber phones, as well as VMPilotNumberPT. VMRestrictedCSS contains only VMRestrictedPT, which is assigned only to VM ports. The VMPilotPartition gets created automatically and gets assigned to the voice-mail ports.

The following example shows primary Cisco Unity server VM ports configuration:

```
Ports 1 to 6: (Lines: 2001-2006) Device Settings - CSS = PhoneCSS
Ports 1 to 6: (Lines: 2001-2006) Directory Number Settings - Partition
= VMPilotPartition, CSS = VMRestrictedCSS
```

The following example shows secondary Cisco Unity server VM ports configuration:

```
Ports 1 to 6: (Lines: 3001-3006) Device Settings - CSS = PhoneCSS
Ports 1 to 6: (Lines: 3001-3006) Directory Number Settings - Partition
= VMPilotPartition, CSS = VMRestrictedCSS
```

The following example shows Line Groups (calls not sent to operator if all ports are busy or RNA) configuration:

1. Line Group Name: LG2001 includes 2001-2004, with the following settings:

   No Answer: Skip remaining members, and go directly to next group **(Because this setting is not the default, you must set it manually.)**
   Busy: Try next member, but do not go to next group **(Because this setting is not the default, you must set it manually.)**
   Not Available: Skip remaining members, and go directly to next group **(Because this setting is not the default, you must set it manually.)**

2. Line Group Name: LG3001 includes 3001-3004, with the following settings:

   No Answer: Try next member, but do not go to next group
   Busy: Try next member, but do not go to next group
   Not Available: Try next member, but do not go to next group

   Ensure that these values are set manually after the upgrade.

The following example shows Line Groups (calls sent to the operator if all ports are busy or RNA) configuration:

Note Configure only incoming line groups; line groups that dial out remain the same.

1. Line Group Name: LG2001 includes 2001-2004, with the following settings:

   ```
   No Answer: Skip remaining members, and go directly to next group
   Busy: Try next member, but do not go to next group
   Not Available: Skip remaining members, and go directly to next
   group
   ```

   Ensure that these values are set manually after the upgrade.

2. Line Group Name: LG3001 includes 3001-3004 with the following settings:

   ```
   No Answer: Try next member, but do not go to next group
   Busy: Try next member, but do not go to next group
   Not Available: Skip remaining members, and go directly to next
   group
   ```

   Ensure that these values are set manually after the upgrade.

3. Line Group Name: Operator includes Operator extension (example 1000):

   ```
   No Answer: Try next member, but do not go to next group
   Busy: Try next member, but do not go to next group
   Not Available: Try next member, but do not go to next group
   ```

After an upgrade, a hunt list automatically gets configured as follows:

```
Hunt List Name: HL2001, includes Line Groups LG2001 and LG3001, and
operator LG if used, in this order.
```

After an upgrade, a hunt pilot automatically gets configured as follows:

```
Hunt Pilot: 2001, Partition: VMPilotNumberPT, Hunt List: HL2001
```

Single Cisco Unity Server with Single Cisco Unified CallManager Cluster

This section outlines the voice-mail port configurations with a single Cisco Unity server and a single Cisco Unified CallManager cluster. The examples describe following configurations:

- Single Cisco Unity Server with Single Cisco Unified CallManager Cluster in Cisco CallManager 3.3(x), page C-8
- Single Cisco Unity Server with Single Cisco Unified CallManager Cluster After Migration to Cisco Unified CallManager 4.0 or Later Releases, page C-8

Single Cisco Unity Server with Single Cisco Unified CallManager Cluster in Cisco CallManager 3.3(x)

In this example, voice-mail ports get configured as follows:

```
Port 1: (Line: 2001) Device Settings - CSS = PhoneCSS
Port 1: (Line: 2001) Directory Number Settings - Partition =
VMPilotNumberPT, CSS = VMRestrictedCSS
Ports 2 to 6: (Lines: 2002-2006) Device Settings - CSS = PhoneCSS
Ports 2 to 6: (Lines: 2002-2006) Directory Number Settings - Partition
= VMRestrictedPT, CSS = VMRestrictedCSS
Ports 1 to 6: (Lines: 2001-2006) Call Forwarding Settings on Busy and
No Answer CSS = VMRestrictedCSS
Line: 2001, CFNA = 2002, CFB = 2002
Line: 2002, CFNA = 2003, CFB = 2003
Line: 2003, CFNA = 2004, CFB = 2004
Line: 2004, CFNA = 2001, CFB = 2001
Line: 2005, CFNA = 2001, CFB = Blank  (for outbound calls and MWI)
Line: 2006, CFNA = 2001, CFB = Blank  (for outbound calls and MWI)
```

Single Cisco Unity Server with Single Cisco Unified CallManager Cluster After Migration to Cisco Unified CallManager 4.0 or Later Releases

In this example, voice-mail ports get configured as follows:

```
Ports 1 to 6: (Lines: 2001-2006) Device Settings - CSS = PhoneCSS
Ports 1 to 6: (Lines: 2001-2006) Directory Number Settings - Partition
= VMPilotPartition, CSS = VMRestrictedCSS
```

Line groups get configured as follows:

Line Group Name: LG2001 includes 2001-2004 with the following settings:

```
No Answer: Try next member, but do not go to next group
Busy: Try next member, but do not go to next group
Not Available: Try next member, but do not go to next group
```

Create the following line groups for outbound ports:

```
LG2005, include 2005 and 2006
```

Configure these line groups with the following settings:

No Answer: Stop hunting. **(Because this setting is not the default, you must set it manually.)**
Busy: Stop hunting. **(Because this setting is not the default, you must set it manually.)**
Not Available: Stop hunting. **(Because this setting is not the default, you must set it manually.)**

Hunt lists get configured as follows:

```
Hunt List Name: HL2001, includes Line Groups LG2001
Hunt List Name: HL2004, includes Line Groups LG2004 and LG2001, in
that order
Hunt List Name: HL2005, includes Line Groups LG2005 and LG2001, in
that order
```

Hunt pilot gets configured as follows:

```
Hunt Pilot: 2001, Partition: VMPilotNumberPT, Hunt List: HL2001
```