



Planning How the Voice Messaging Ports Will Be Used by Cisco Unity Connection

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Introduction: Issues to Consider When Planning Port Setup

Before programming the phone system, you need to plan how the voice messaging ports will be used by Cisco Unity Connection. The following considerations will affect the programming for the phone system (for example, setting up the hunt group or call forwarding for the voice messaging ports):

- The number of voice messaging ports installed.
For a Cisco Unity Connection cluster, each Cisco Unity Connection server must have enough ports to handle all voice messaging traffic in case the other server stops functioning. The Cisco Unified CM server must have enough ports installed for all Cisco Unity Connection servers.
- The number of voice messaging ports that will answer calls.
- The number of voice messaging ports that will only dial out, for example, to send message notification, to set message waiting indicators (MWIs), and to make telephone record and playback (TRAP) connections.

The following table describes the voice messaging port settings in Cisco Unity Connection that can be set on **Telephony Integrations > Port** of Cisco Unity Connection Administration.

Table 2-1 **Settings for the Voice Messaging Ports**

Field	Considerations
Enabled	Check this check box to enable the port. The port is enabled during normal operation. Uncheck this check box to disable the port. When the port is disabled, calls to the port get a ringing tone but are not answered. Typically, the port is disabled only by the installer during testing.

Table 2-1 Settings for the Voice Messaging Ports (continued)

Field	Considerations
Server	<i>(For Cisco Unity Connection clusters only)</i> Select the name of the Cisco Unity Connection server that you want to handle this port. For details, see “Configuring Voice Messaging Ports for a Cisco Unity Connection Cluster”
Extension	Enter the extension for the port as assigned on the phone system.
Answer Calls	Check this check box to designate the port for answering calls. These calls can be incoming calls from unidentified callers or from users.
Perform Message Notification	Check this check box to designate the port for notifying users of messages. Assign Perform Message Notification to the least busy ports.
Send MWI Requests	Check this check box to designate the port for turning MWIs on and off. Assign Send MWI Requests to the least busy ports.
Allow TRAP Connections	Check this check box so that users can use the phone as a recording and playback device in Cisco Unity Connection web applications. Assign Allow TRAP Connections to the least busy ports.
Outgoing Hunt Order	Enter the priority order in which Cisco Unity Connection will use the ports when dialing out (for example, if the Perform Message Notification, Send MWI Requests, or Allow TRAP Connections check box is checked). The highest numbers are used first. However, when multiple ports have the same Outgoing Hunt Order number, Cisco Unity Connection will use the port that has been idle the longest.
Security Mode	Select the applicable security mode: <ul style="list-style-type: none"> • Non-secure—The integrity and privacy of call-signaling messages will not be ensured because call-signaling messages will be sent as clear (unencrypted) text and will be connected to Cisco Unified CM through a non-authenticated port rather than an authenticated TLS port. In addition, the media stream will not be encrypted. • Authenticated—The integrity of call-signaling messages will be ensured because they will be connected to Cisco Unified CM through an authenticated TLS port. However, the privacy of call-signaling messages will not be ensured because they will be sent as clear (unencrypted) text. In addition, the media stream will not be encrypted. • Encrypted—The integrity and privacy of call-signaling messages will be ensured on this port because they will be connected to Cisco Unified CM through an authenticated TLS port, and the call-signaling messages will be encrypted. In addition, the media stream will be encrypted.

Determining How Many Voice Messaging Ports to Install

The number of voice messaging ports to install depends on numerous factors, including:

- The number of calls Cisco Unity Connection will answer when call traffic is at its peak.
- The expected length of each message that callers will record and that users will listen to.
- The number of users.
- The number of ports that will be set to dial out only.
- The number of calls made for message notification.

- The number of MWIs that will be activated when call traffic is at its peak.
- The number of TRAP connections needed when call traffic is at its peak. (TRAP connections are used by Cisco Unity Connection web applications to play back and record over the phone.)
- The number of calls that will use the automated attendant and call handlers when call traffic is at its peak.
- Whether a Cisco Unity Connection cluster is configured. For considerations, see the [“Considerations for a Cisco Unity Connection Cluster” section on page 2-4.](#)

It is best to install only the number of voice messaging ports that are needed so that system resources are not allocated to unused ports.

Determining How Many Voice Messaging Ports Will Answer Calls

The calls that the voice messaging ports answer can be incoming calls from unidentified callers or from users. Typically, the voice messaging ports that answer calls are the busiest.

You can set voice messaging ports to both answer calls and to dial out (for example, to send message notifications). However, when the voice messaging ports perform more than one function and are very active (for example, answering many calls), the other functions may be delayed until the voice messaging port is free (for example, message notifications cannot be sent until there are fewer calls to answer). For best performance, dedicate certain voice messaging ports for only answering incoming calls, and dedicate other ports for only dialing out. Separating these port functions eliminates the possibility of a collision, in which an incoming call arrives on a port at the same time that Cisco Unity Connection takes the port off-hook to dial out.

If your system is configured for a Cisco Unity Connection cluster, see the [“Considerations for a Cisco Unity Connection Cluster” section on page 2-4.](#)

Determining How Many Voice Messaging Ports Will Only Dial Out, and Not Answer Calls

Ports that will only dial out and will not answer calls can do one or more of the following:

- Notify users by phone, pager, or email of messages that have arrived.
- Turn MWIs on and off for user extensions.
- Make a TRAP Unity Connection so that users can use the phone as a recording and playback device in Cisco Unity Connection web applications.

Typically, these voice messaging ports are the least busy ports.

If your system is configured for a Cisco Unity Connection cluster, see the [“Considerations for a Cisco Unity Connection Cluster” section on page 2-4.](#)



Caution

In programming the phone system, do not send calls to voice messaging ports in Cisco Unity Connection that cannot answer calls (voice messaging ports that are not set to **Answer Calls**). For example, if a voice messaging port is set only to **Send MWI Requests**, do not send calls to it.

Considerations for a Cisco Unity Connection Cluster

If your system is configured for a Cisco Unity Connection cluster, consider how the voice messaging ports will be used in following scenarios.

When Both Cisco Unity Connection Servers Are Functioning Normally

- The phone system is provisioned with twice the number SCCP voice mail port devices needed to handle the voice messaging traffic.
- A hunt group is configured to send incoming calls first to the subscriber server, then to the publisher server if no answering ports are available on the subscriber server.
- Both Cisco Unity Connection servers are active and handle voice messaging traffic for the system.
- In Cisco Unity Connection Administration, the voice messaging ports are assigned in the following manner:
 - The subscriber server answers most incoming calls for the system.
 - The publisher server handles most dial-out calls (MWI requests and notifications).

This guide directs you to assign the voice messaging ports to their specific Cisco Unity Connection server at the applicable time.

- The voice messaging ports on both Cisco Unity Connection servers are registered with the phone system.
- The number of voice messaging ports that are assigned to one Cisco Unity Connection server must be sufficient to handle all of the voice messaging traffic for the system (answering calls and dialing out) when the other Cisco Unity Connection server stops functioning.

If both Cisco Unity Connection servers must be functioning to handle the voice messaging traffic, the system will not have sufficient capacity when one of the servers stops functioning.

- Each Cisco Unity Connection server is assigned half the total number of voice messaging ports.
If all the voice messaging ports are assigned to one Cisco Unity Connection server, the other Cisco Unity Connection server will not be able to answer calls or to dial out.
- Each Cisco Unity Connection server must be assigned voice messaging ports that will answer calls and that can dial out (for example, to set MWIs). For details, see [Chapter 8, “Configuring Voice Messaging Ports for a Cisco Unity Connection Cluster.”](#)

If Only One Cisco Unity Connection Server Is Functioning

- The SCCP voice mail port devices on the phone system are unregistered from the voice messaging ports on the Cisco Unity Connection server that stopped functioning.
- The hunt group on the phone system sends all calls to the functioning Cisco Unity Connection server.
- The functioning Cisco Unity Connection server receives all voice messaging traffic for the system.
- The number of voice messaging ports that are assigned to the functioning Cisco Unity Connection server must be sufficient to handle all of the voice messaging traffic for the system (answering calls and dialing out).

- The functioning Cisco Unity Connection server must have voice messaging ports that will answer calls and that can dial out (for example, to set MWIs). For details, see [Chapter 8, “Configuring Voice Messaging Ports for a Cisco Unity Connection Cluster.”](#)

If the functioning Cisco Unity Connection server does not have voice messaging ports for answering calls, the system will not be able to answer incoming calls. Similarly, if the functioning Cisco Unity Connection server does not have voice messaging ports for dialing out, the system will not be able to dial out (for example, to set MWIs).

