



# Planning the Usage of Voice Messaging Ports

See the following sections in this chapter:

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## Planning the Voice Messaging Ports

### Planning the Port Setup

Before programming the phone system, you need to plan how the voice messaging ports are used by Cisco Unity Connection. The following considerations 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 Unity Connection cluster, each server must have enough ports to handle all voice messaging traffic in case the other server stops functioning.

- The number of voice messaging ports that answer calls.
- The number of voice messaging ports that only dial out, for example, to send message notification, to set message waiting indicators (MWIs), and to make telephone record and playback (TRAP) connections.

To configure settings for the voice messaging ports in Unity Connection, navigate to Cisco Unity Connection Administration, expand Telephony Integrations and select Ports. Select an applicable port and modify the settings on Port Basics page. For more information on configuring ports, see the “[Configuring Ports](#)” section of the “Telephony Integration” chapter of the *System Administration Guide for Cisco Unity Connection, Release 15*, available at [https://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/connection/15/administration/guide/b\\_15cucsag.html](https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/15/administration/guide/b_15cucsag.html).

### Determining the Number of Voice Messaging Ports

The following tasks describe the process for determining the number of voice messaging ports for Cisco Unity Connection to install, answer call and dial out calls:

- For determining the number of voice messaging ports to Install, see [Voice Messaging Ports to Install](#).

- For determining the number of voice messaging ports to Answer Calls, see [Voice Messaging Ports to Answer Calls](#).
- For determining the number of voice messaging ports to Dial Out, see [Voice Messaging Ports that Dial Out](#).

## Voice Messaging Ports to Install

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

- The number of calls Unity Connection answers when call traffic is at its peak.
- The expected length of each message that callers record and users listen to.
- The number of users.
- The number of ports set to dial out only.
- The number of calls made for message notification.
- The number of MWIs 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 Unity Connection web applications to play back and record over the phone.)
- The number of calls that use the automated attendant and call handlers when call traffic is at its peak.
- Whether a Unity Connection cluster is configured. For considerations, see the [Considerations for a Unity Connection Cluster](#).

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.

## Voice Messaging Ports to 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 Unity Connection takes the port off-hook to dial out.

If your system is configured for a Unity Connection cluster, see the [Considerations for a Unity Connection Cluster](#).

## Voice Messaging Ports that Dial Out

Ports that only dial out and 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 Unity Connection web applications.

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

**Caution**

In programming the phone system, do not send calls to voice messaging ports in 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 Unity Connection Cluster

If your system is configured for a Unity Connection cluster, consider how the voice messaging ports are used in different scenarios.

### When Both Unity Connection Servers are Functioning

- The number of ports provisioned on the phone system is the same as the number of voice messaging ports on each Unity Connection server.
- The PIMG units are 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.
- The PIMG units are configured to balance the voice messaging traffic between the Unity Connection servers.
- Both Unity Connection servers are active and handle voice messaging traffic for the system.
- The number of voice messaging ports on each 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 Unity Connection server stops functioning.

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

- Each Unity Connection server must have voice messaging ports that answer calls and that can dial out (for example, to set MWIs).

### When Only One Unity Connection Server is Functioning

- PIMG units send all calls to the functioning Unity Connection server.
- The functioning Unity Connection server receives all voice messaging traffic for the system.
- The number of voice messaging ports that are assigned to the functioning Unity Connection server must be sufficient to handle all of the voice messaging traffic for the system (answering calls and dialing out).
- The functioning Unity Connection server must have voice messaging ports that answer calls and that can dial out (for example, to set MWIs).

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