



CHAPTER 5

Designing a Cisco Unity System with Domino as the Message Store

This chapter focuses on using IBM Lotus Domino as the message store and a Domino address book as the directory for Cisco Unity.

See the following sections:

- [Overview of Cisco Unity with Domino and Notes, page 5-1](#)
- [Cisco Unity and the Domino Address Book, page 5-8](#)
- [Unified Messaging Configurations, page 5-9](#)
- [Voice Messaging Configuration, page 5-10](#)
- [Criteria for a Supported Configuration, page 5-10](#)
- [Deploying Cisco Unity for Lotus Domino, page 5-11](#)
- [Feature Parity Between Cisco Unity for Domino and Cisco Unity for Exchange, page 5-14](#)

Overview of Cisco Unity with Domino and Notes

This section provides an overview of the characteristics of a Cisco Unity system with Domino as the message store. Unless noted, all information applies to both Unified Messaging and Voice Messaging configurations.

See the following sections:

- [Maximum Number of Cisco Unity Subscribers, page 5-2](#)
- [Domino Address Book Terminology, page 5-2](#)
- [IBM Lotus Domino Unified Communications \(DUC\) for Cisco on Domino Servers and on Client Workstations, page 5-2](#)
- [Address Book Server, Message Store Server, and Mail Drop Server, page 5-4](#)
- [Windows Domains and Domino Domains, page 5-5](#)
- [Server Placement, page 5-5](#)
- [Active Directory Accounts and Permissions, page 5-6](#)
- [Authentication, page 5-6](#)
- [Domino Permissions, page 5-7](#)
- [Cisco Unity Subscribers and Domino Users, page 5-7](#)

- [Domino Clusters, page 5-7](#)
- [Message Routing, page 5-8](#)
- [Notes Client on the Cisco Unity Server, page 5-8](#)
- [Client Access Licenses, page 5-8](#)
- [Backing Up and Restoring Data, page 5-8](#)
- [Migrating from Cisco Unity for Exchange, page 5-8](#)

Maximum Number of Cisco Unity Subscribers

Cisco Unity for Domino deployments are limited to one Cisco Unity server or one pair of failover servers with a maximum of 7,500 subscribers.

Domino Address Book Terminology

Names.nsf is the first address book (directory) file in a Domino domain, and is created when the first Domino server is installed. Each additional Domino server that is added to the Domino domain receives a replica of Names.nsf.

During Cisco Unity installation, the installer specifies a Domino address book on a Domino server. In general, this address book will be a replica of Names.nsf. The customer can create Cisco Unity subscriber accounts by importing user data from the specified address book. Cisco Unity monitors the address book for changes to Domino users who are also Cisco Unity subscribers and to Domino distribution lists.

A secondary address book is an address book that is typically created to house non-local mail users, who do not own a mailbox in the domain or enterprise. (In Domino, the Person documents for these users have “Other Internet Mail” set in the Mail System field.) The Active Directory equivalent is contacts. You can add one additional (secondary) subscriber address book by using the Cisco Unity Administrator. The secondary address book must reside in the same Domino domain as the primary address book, and cannot be a replica of an address book in another Domino domain.

By default, the address book that the installer specifies in the Message Store Configuration wizard during Cisco Unity Setup is monitored for changes to Cisco Unity data. In addition, you can add up to eight monitored address books by using the Cisco Unity Administrator. Monitored address books may be needed when there are multiple Cisco Unity servers that will be set up for Digital Networking. For more information, see the “Managing Monitored Address Books” section in the “Digital Networking” chapter of the *Networking Guide for Cisco Unity Release 5.x* at

http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_feature_guides_list.html.

IBM Lotus Domino Unified Communications (DUC) for Cisco on Domino Servers and on Client Workstations

To use Domino as the message store and directory, the customer must install components of IBM Lotus Domino Unified Communications (DUC) for Cisco on Domino servers:

- csServer must be installed on each Domino server that homes Cisco Unity subscribers. If Cisco Unity subscribers are homed on Domino servers in a cluster, csServer must be installed on every Domino server in the cluster.

- csAdmin, the administration component of DUC for Cisco, must be installed on the Domino server that pushes directory information out to the other Domino servers. You install csAdmin only once for the domain.

In addition, DUC for Cisco client software must be installed on the client workstation of each Notes user who will be a Cisco Unity subscriber. Installing the client software adds VCR-style recording and playback controls to the message form, and provides message notification, message waiting indicators, and a Lotus Mail template for recording and playing voice messages.

For information on the versions of the following software currently supported, see the “Domino Requirements—Message Store” section of *System Requirements for Cisco Unity Release 5.0* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html:

- Domino versions supported on message store servers
- DUC for Cisco versions supported on Domino servers
- Notes versions supported on the Cisco Unity server
- Operating systems supported on Domino servers running DUC for Cisco

Changes That csAdmin Makes to the Domino Address Book

Table 5-1 shows the elements added to the Domino address book when csAdmin is installed. If csAdmin is uninstalled, these items are removed from the address book.

Table 5-1 Elements That csAdmin Adds to the Address Book

Element	Name
Forms	Unity Location
Views	<ul style="list-style-type: none"> • Unity Locations • (\$UnityLocLookup) • (\$UnityNameLookup)
Agent	UC License Tracking
Subforms	<ul style="list-style-type: none"> • \$CSUnityDLSubform • \$CSUnityUserSubform • \$GroupExtensibleSchema • \$PersonExtensibleSchema

Changes That csClient Makes to the Mail File

When csClient software is installed on a client workstation, the elements in [Table 5-2](#) are added to the mail file. If csClient is uninstalled, these elements are removed from the mail file.

Table 5-2 *Elements That csClient Adds to the Mail File*

Element	Name
Forms	<ul style="list-style-type: none"> • UCDisplayInfo • Voice Message • (Display Received Voice Message) • (UCMemo)
Views	<ul style="list-style-type: none"> • Voice Inbox • (\$UCInbox)—this view is added when the user is imported into Cisco Unity
Agents	<ul style="list-style-type: none"> • (UCEnable) • (UCPreferences)
Images	<ul style="list-style-type: none"> • Phone.jpg • act_EDIT.GIF • act_Listen.GIF
Subforms	<ul style="list-style-type: none"> • UCPlayer • (DisplayFwrContent) • (UCItems) • (UCVoiceNote) • (VoiceDeliveryOptions)
Script libraries	<ul style="list-style-type: none"> • Core UC Classes • Core UC Strings • Unified Communications

Address Book Server, Message Store Server, and Mail Drop Server

Cisco Unity interacts with Domino servers that perform a variety of functions. Depending on the number of Domino users, these functions may be all on one Domino server or spread out across many servers:

- Address book servers are the servers on which Cisco Unity accesses Domino address books. There are three types of address book:
 - The primary address book (commonly names.nsf) is the address book in which Cisco Unity creates Person documents with mail files for the default accounts and for distribution lists, and from which Domino user data is imported to create Cisco Unity subscribers.

The primary address book is the home of the Cisco Unity system mailbox; this mailbox sends voice messages from outside callers. (Voice messages from Cisco Unity subscribers are identified as coming from those subscribers.) Each Cisco Unity server must have a system mailbox.

You choose the primary address book server during Cisco Unity installation.

- A secondary address book is an address book from which subscribers can be imported but that does not home default Cisco Unity accounts. You can choose a secondary address book, if any, in the Cisco Unity Administrator.
- Monitored address books may be needed when there are multiple Cisco Unity servers that will be set up for Digital Networking. For more information, see the “Managing Monitored Address Books” section in the “Digital Networking” chapter of the *Networking Guide for Cisco Unity Release 5.x* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_feature_guides_list.html.
- Message store servers are the Domino servers that home the mail files for Cisco Unity subscribers. Domino administrators configure mail files for Domino users.
- The mail drop server is the Domino server that the installer specifies while installing IBM Lotus Notes on a Cisco Unity server. Cisco Unity delivers all voice messages to Mail.box on the mail drop server for routing.

Windows Domains and Domino Domains

A Cisco Unity server can be either a domain controller or a member server in a Windows Server 2003 or Windows 2000 Server domain. If the Cisco Unity server is a member server, it should reside in the same highly available and connected network as a domain controller for that domain.

The customer needs at least one Cisco Unity server for each Domino domain that will home Cisco Unity subscribers.

Server Placement

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Note the following best practices for placement of Cisco Unity servers and the servers that Cisco Unity relies on:

- The Cisco Unity server should reside in the same highly available and connected network as the address book servers, the message store servers, and the mail drop server, or the customer will experience delays in message access, in directory replication, and in directory lookups.
- Ensure that Cisco Unity can resolve server names to IP addresses. If this is not possible on a given network segment, consider adding the necessary resource or moving the Cisco Unity server to a segment that provides easy access to these services.
- Cisco Unity can coexist with firewalls. However, note that Cisco Unity should never be deployed outside of a firewall. Doing so can expose the Cisco Unity server to unwanted intrusion from the Internet, even if the server is hardened.

When failover or standby redundancy is configured, the Cisco Unity servers cannot be separated from one another by a firewall. They also cannot be separated by a firewall from:

- Domino servers on which mailboxes for Cisco Unity subscribers are homed.
- The Domino server that Cisco Unity monitors for changes to the directory.
- The Domino server to which Cisco Unity sends voice messages. (This is the Domino server that the installer specifies while installing IBM Lotus Notes on the Cisco Unity server. Cisco Unity delivers all voice messages to Mail.box on this server for routing.)
- The domain controller on which the Cisco Unity installation and services accounts were created.

For additional firewall requirements, see the section “Network Requirements” in the *System Requirements for Cisco Unity* at

http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html:

- A single Cisco Unity server can service both local and remote subscribers, especially when Cisco Unity is integrated with Cisco Unified Communications Manager (CM) (formerly known as Cisco Unified CallManager), and when Cisco Unity is configured for Unified Messaging. In a Voice Messaging configuration, the message store server must be in the same location as the Cisco Unity server.
- If Cisco Unity is integrated with a circuit-switched phone system by using voice cards, ensure that the Cisco Unity server is within the maximum allowable cable length of the phone system. If Cisco Unity is integrated with Cisco Unified CM or via PIMG or TIMG units, the distance between the servers is less crucial.

Active Directory Accounts and Permissions

Cisco Unity requires that three Active Directory domain accounts be created during installation, as described in the Cisco Unity installation guide. One account is used to install Cisco Unity, another is the account that most Cisco Unity services log on as, and the third is used to access the Cisco Unity Administrator. (Some services, including the Text to Speech service and the service that controls Cisco Unity licensing, log on as the local system account.)

The permissions required by each of the accounts are set by the Cisco Unity Permissions Wizard. The account that Cisco Unity services log on as can be used by more than one Cisco Unity server in the same domain. For detailed information on the permissions required, see the Help file *Permissions Granted by the Cisco Unity 5.0(1)+ Permissions Wizard* at http://ciscounitytools.com/HelpFiles/PW501/PWHelpPermissionsSet_ENU.htm.

These accounts and permissions are required for Cisco Unity–specific functionality and are separate from the Domino permissions that are described in the “[Domino Permissions](#)” section on page 5-7.

Domino users who are Cisco Unity subscribers do not need Active Directory accounts, and Cisco Unity administrators and subscribers are not required to use Windows authentication.

Authentication

Cisco Unity subscribers whose class of service (COS) allows them access to the Cisco Unity Administrator can log on to the Cisco Unity Administrator by using Domino authentication, Integrated Windows authentication, or Anonymous authentication, depending on how the system is configured. Subscribers whose COS allows them access to the Cisco Unity Assistant must log on to the Cisco Unity Assistant by using Domino authentication.

For more information, see:

- The “Managing Cisco Unity Administrator Accounts” chapter in the *System Administration Guide for Cisco Unity Release 5.x (With IBM Lotus Domino)* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_maintenance_guides_list.html.
- The “Accessing and Using the Cisco Unity Administrator” chapter, also in the *System Administration Guide for Cisco Unity Release 5.x (With IBM Lotus Domino)*.
- The “Authentication for Cisco Unity Applications” chapter in the *Security Guide for Cisco Unity Release 5.x (With IBM Lotus Domino)*, also at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_maintenance_guides_list.html.

Domino Permissions

Before Cisco Unity is installed, the Cisco Unity installer or a qualified Domino administrator needs to:

- Create a group for Cisco Unity servers named UnityServers, and grant the group Editor permissions for Admin4.nsf and Editor with Delete Documents permissions for Names.nsf.
- Confirm that the UnityServers group has the permissions required to create databases and templates. This allows Cisco Unity to create mail files for the default accounts.

With these permissions, Cisco Unity acts as a Notes user to:

- Import data from the Domino address book to create Cisco Unity subscribers, contacts, and distribution lists.
- Change the Domino address book by using the Cisco Unity Administrator.
- Submit voice messages through Domino.
- Retrieve and play messages left for subscribers.
- Get information about the read/unread status of voice messages, e-mail, and fax messages in a subscriber mailbox, and send notification when there are new messages.

In addition, when a Domino user is imported into Cisco Unity, Cisco Unity submits an AdminP request to grant the user access to the imported user mail file.

For more information on setting Domino-specific permissions, see the applicable Cisco Unity installation guide, at

http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.

Cisco Unity Subscribers and Domino Users

A Cisco Unity subscriber is a Domino user who has been DUC for Cisco-enabled and imported into Cisco Unity. The person document of each subscriber has Cisco Unity attributes, and the mail file has DUC for Cisco attributes. The only way to create a Cisco Unity subscriber is to import an existing Domino user into Cisco Unity. Cisco Unity cannot create Domino users by using the Cisco Unity Administrator.

Domino Clusters

Revised <TBD>

Cisco Unity supports homing Cisco Unity subscribers on Domino clusters. The Domino cluster must meet all IBM Lotus requirements, particularly those related to the maximum number of users and to supported hardware.

Depending on the number of users on a cluster, the customer may want to install one Cisco Unity server for each Domino cluster. The Cisco Unity server cannot be separated from any of the servers in the Domino cluster by a firewall. Additionally, all of the Domino servers in the cluster and the Cisco Unity server should reside in the same highly available and connected network. If more than one Cisco Unity server is installed for a single Domino cluster, none of the Cisco Unity servers can be separated by a firewall from the Domino servers in the cluster, and all of the servers should reside in the same highly available and connected network.

The customer is responsible for installing, configuring, and maintaining the Domino cluster.

For more information on Domino clusters, refer to the Lotus Domino documentation, available on the Lotus Domino website.

Message Routing

Cisco Unity voice messages are routed to Domino mailboxes by Domino. When a caller leaves a voice message (whether an outside caller or a subscriber), Cisco Unity submits the messages to Mail.box on the mail drop server. The mail drop server determines the routing path to the mail file of the recipient. When Cisco Unity has given the message to the mail drop server, the Domino services are responsible for delivery.

Notes Client on the Cisco Unity Server

For Cisco Unity to interact with a Domino server, a Notes Client must be installed on the Cisco Unity server. No other Domino software is installed on the Cisco Unity server. In order to determine the correct version of the Notes client to use, see the “Domino Requirements—Message Store” section of *System Requirements for Cisco Unity Release 5.0* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.

Client Access Licenses

DUC for Cisco is automatically shipped by Cisco with all Cisco Unity for Domino systems.

The customer is responsible for purchasing and maintaining any other Lotus licenses that may be required.

Backing Up and Restoring Data

Backing up mailboxes is important in any Unified Messaging deployment. The customer should use a backup program qualified by IBM Lotus for use with Domino.

Migrating from Cisco Unity for Exchange

Cisco Unity for Exchange systems, configured either for Voice Messaging or Unified Messaging, can be converted to Cisco Unity 5.0 for Domino, but only by reinstalling all software, and losing Cisco Unity settings and voice messages.

Cisco Unity and the Domino Address Book

Cisco Unity for Domino uses a Domino address book as its directory service. However, the majority of information on Cisco Unity subscribers and other Cisco Unity objects appears only in a SQL Server/MSDE database. For the small amount of data that appears both in the Domino address book and in the Cisco Unity database (for example, extension), Cisco Unity periodically checks the Domino address book for changes and replicates those changes in the Cisco Unity database. Some of the changes that are made in the Cisco Unity Administrator are replicated to the Domino address book. After a Cisco Unity system is installed and running, changes to the address book and to settings in the Cisco Unity Administrator are relatively few in number, so this replication will not hurt performance.

Cisco Unity requires Editor with Delete Documents permission for the address book that Cisco Unity monitors. A Cisco Unity server can monitor the address books for one domain, including Names.nsf and any secondary address book that may be supporting proxy/remote users (users who do not have mail files in the Domino domain).

For more information on permission requirements, see the applicable Cisco Unity installation guide at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.

Unified Messaging Configurations

In a Unified Messaging configuration, Cisco Unity does not own the directory or messaging data but instead uses existing directory (Domino address book) and message store information. The benefits of Unified Messaging include:

- Significantly reduced administrative overhead because the customer does not need to create and maintain separate accounts for e-mail and voice messaging applications.
- No dedicated infrastructure for a separate voice-messaging system. Cisco Unity uses the existing messaging infrastructure by voice-enabling the e-mail environment.
- Starting with Unified Messaging is administratively easier than starting with a Voice Messaging system and later migrating to Unified Messaging.

Unified Messaging, No Domino Cluster

When you are setting up two or more Cisco Unity servers, the servers can be networked by using Cisco Unity Digital Networking. If the phone system has ports available, you can hook up more than one Cisco Unity server to each phone system. For more information, see [Table 5-3](#).

Table 5-3 Server Requirements and Recommendations for a Unified Messaging Configuration

Servers	Requirements and Recommendations
Cisco Unity server	Each physical site that includes one or more Domino servers on which mailboxes for Cisco Unity subscribers are homed also includes at least one Cisco Unity server. Each Domino domain requires a Cisco Unity server. If you need to import Cisco Unity subscribers in different Domino domains, you must install a Cisco Unity server in each Domino domain and use Digital Networking between the servers.
Domino address book server, message store server, and mail drop server	Domino servers must be in the same highly available and connected LAN as the Cisco Unity server.
Domain controller/global catalog server (DC/GC)	There must be at least one DC/GC per physical site that includes a Cisco Unity server. If necessary, the Cisco Unity server can be the DC/GC.
DNS server	There must be at least one DNS server per physical site that includes a Cisco Unity server. In sites with enough servers, we recommend two or more DNS servers.
Media gateways (for phone system integrations that include PIMG or TIMG units)	The PIMG or TIMG units can be connected to the Cisco Unity server by a LAN or a WAN.
Cisco Unified Communications Manager servers	The Cisco Unified Communications Manager (CM) (formerly known as Cisco Unified CallManager) and Cisco Unity servers can be connected by a LAN or a WAN.

Table 5-3 Server Requirements and Recommendations for a Unified Messaging Configuration (continued)

Servers	Requirements and Recommendations
Cisco Unified Communications Manager Express	The Cisco Unified Communications Manager (CM) Express (formerly known as Cisco Unified CallManager Express) and Cisco Unity servers must be connected by a LAN.
Cisco Unity voice-recognition server	<p>The Cisco Unity voice-recognition server and the Cisco Unity server must be connected by a LAN.</p> <p>For each Cisco Unity server that homes subscribers for whom you want to have voice-recognition functionality, you must have one voice-recognition server. A voice-recognition server cannot service more than one Cisco Unity server or, when failover is configured, one pair of failover servers.</p> <p>Voice-recognition software cannot be installed on the Cisco Unity server.</p>
Cisco Unity Bridge server	<p>The Bridge server can be a member server in an existing domain or a workgroup server. It cannot be a DC/GC.</p> <p>The Cisco Unity Bridge and Cisco Unity servers can be connected by a LAN or a WAN.</p> <p>Bridge software cannot be installed on the Cisco Unity server.</p> <p>For more information, see the <i>Design Guide for Cisco Unity Bridge</i> at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_implementation_design_guides_list.html.</p>

Unified Messaging, Domino Cluster

A clustered environment is the same as the non-clustered environment detailed in [Table 5-3](#) except that all Domino servers have to be in the same highly available and connected LAN as the Cisco Unity server.

Domino partitioning is also supported.

Voice Messaging Configuration

A clustered environment is the same as the environment detailed in [Table 5-3](#) except that all Domino servers are dedicated to servicing Cisco Unity voice messages.

Criteria for a Supported Configuration

Requirements for supported configurations for Cisco Unity for Domino include the following:

- Domino servers and Domino clusters must meet all IBM Lotus requirements, including requirements related to DUC for Cisco, the maximum number of users per server, the proper amount of memory, the proper processors and processor speed, hard disks that can meet disk-access response times, and placement of data files and transaction log files. Cisco Unity cannot support message store servers that have performance bottlenecks such as slow hard drives or insufficient memory.
- A Cisco Unity server can service a single physical site, meaning one or more well-connected LANs, such as a campus, single building, or other centralized facility where network bandwidth is not a problem.

- A Cisco Unity server can service mailboxes on up to a recommended maximum of ten Domino servers or clusters in a single physical site.
- A Cisco Unity server can service a single Domino address book (directory or Names.nsf file) for local Cisco Unity data (data for subscribers homed on the local Cisco Unity server) and global Cisco Unity data (data for subscribers homed on other Cisco Unity servers).
- A Cisco Unity server can service a single secondary address book for contacts. The secondary address book must have the same views as Names.nsf, and must be DUC for Cisco-enabled (must contain the DUC for Cisco admin view). The secondary address book can reside on a different Domino server in the same Domino domain.
- Two or more Cisco Unity servers can be installed in a single Domino domain. Subscribers who are homed on one Cisco Unity server can send voice messages to subscribers who are homed on another Cisco Unity server by using Cisco Unity Digital Networking.
- Cisco Unity for Domino subscribers and Cisco Unity for Exchange subscribers can send voice messages to one another by using VPIM Networking.
- Cisco Unity for Domino subscribers in one Domino domain can send voice messages to subscribers in another Domino domain by configuring monitored address books as described in the “Managing Monitored Address Books” section in the “Digital Networking” chapter of the *Networking Guide for Cisco Unity Release 5.x* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_feature_guides_list.html.

Deploying Cisco Unity for Lotus Domino

Cisco Unity for Lotus Domino can be deployed in the following ways:

- Unified Messaging with one or more Cisco Unity servers servicing Cisco Unity subscribers on multiple Domino servers in the same Domino domain and the same well-connected network.
- Unified Messaging with access to Cisco Unity Assistant and DUC for Cisco (the form in Notes that allows subscribers to play and record messages).
- Unified Messaging with multiple Cisco Unity servers. This requires either Cisco Unity Digital Networking (if two or more Cisco Unity servers are in the same Domino domain) or SMTP gateways and Internet subscribers (if two or more Cisco Unity servers are in separate Domino domains). For more information, see the *Networking Guide for Cisco Unity*, available at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_feature_guides_list.html.
- Voice Messaging.

See the following sections for additional information:

- [Administrative Access and Control, page 5-12](#)
- [Establishing Support Policies, page 5-12](#)
- [Network Services, page 5-12](#)
- [Deployment Tasks for Unified Messaging Configurations, page 5-12](#)
- [Operational Tasks, page 5-13](#)

Administrative Access and Control

To manage administrative access to the Cisco Unity server and its resources, the customer may want different levels of access for different operations, for example, backing up the server or gathering performance information for trending.

When installing Cisco Unity in a Unified Messaging configuration, it is best to allow administrative access to the server to be governed by the server administration policies of the customer. This should not detract from the administrative access required for normal Cisco Unity operations, which include:

- Managing the server resources (hardware, operating system, file system, and other supporting software).
- Managing the Cisco Unity application, including web access; supporting components such as SQL Server/MSDE, IIS, and Internet Explorer; the Cisco Unity application log files; and utilities such as the Windows Event Viewer, Performance Monitor, and so on.
- Administering Cisco Unity subscribers, distribution lists, call handlers, and so on.
- Administering Cisco Unity switch connectivity to Cisco Unified Communications Manager or a circuit-switched phone system.

Establishing Support Policies

To make administering Cisco Unity more manageable, establish a support policy that separates Cisco Unity-specific administration from administration for the rest of the server. This allows Cisco Unity administrators with limited class of service (COS) settings to access the Cisco Unity application only as designed through their COS.

Network Services

Cisco Unity is a Notes client that uses Notes name resolution to resolve FQDNs in the Domino/Notes environment. Cisco Unity must be able to access and resolve server names across the deployment, or performance will suffer and some Cisco Unity operations will fail. Ideally, the name resolution server will be on the same highly available network as the Cisco Unity server. Because Cisco Unity for Domino can only be deployed in existing Domino environments, name resolution servers should already be available.

Because Cisco Unity still needs to be installed in an Active Directory domain, Cisco Unity relies on Windows DNS. If you install Cisco Unity into an existing Active Directory domain, there should be an existing DNS server highly available. If the customer does not have an existing Active Directory domain, DNS must be installed on the Cisco Unity server.

Deployment Tasks for Unified Messaging Configurations

In a Unified Messaging configuration, pay careful attention to the placement of Cisco Unity servers, how they are managed, and the accounts that are used to manage them.

Consider the following deployment best practices:

- Define and create the accounts to be used in running the Cisco Unity services.
- Define and create the accounts to be used to administer Cisco Unity.

- Create a group for Cisco Unity servers, and grant the group Editor permissions for Admin4.nsf, and Editor with Delete Documents permissions for Names.nsf.
- Install DUC for Cisco components on the applicable Domino servers.
- Define the level of access to the local Cisco Unity server necessary for an administrator. Subscribers who are not administrators do not need direct access to the Cisco Unity server operating system or file system.
- Define a policy for Cisco Unity classes of service for each Cisco Unity server.
- Define the Cisco Unity templates to be used for subscribers.
- Define the Cisco Unity distribution lists for each installation. (Other than the default distribution lists created during installation, you must either identify existing distribution lists in the Domino address book or create new distribution lists, and then import them into Cisco Unity.)
- Define any audio-text applications that need to be created on each Cisco Unity server.
- Define dialing restrictions necessary to prevent subscribers from accessing unauthorized outside numbers.
- Verify that the number of subscribers serviced by each Cisco Unity server is known and documented (there is a limit of 7,500 subscribers per Cisco Unity server).
- Verify that each Cisco Unity server is properly sized for the number of subscribers it will service. For additional sizing information, see the *Cisco Unity Supported Platforms List* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_data_sheets_list.html.
- Create and document a suitable disaster recovery plan.
- Verify that the switch integration is understood.
- Determine the number of ports needed for message notification, and for recording and playing messages over the phone.
- Verify that all hardware and supporting components are set up correctly.
- List the acceptance tests to be run after the server is installed and before going live.
- Verify that there is a fallback procedure in the event that problems are encountered.
- Define any measurements necessary to benchmark the initial performance of the system.
- Install the DUC for Cisco client on workstations for Cisco Unity subscribers. This is necessary before a Domino user can be imported into Cisco Unity as a subscriber.

Operational Tasks

The following are best practices for an operational Cisco Unity system:

- Create and implement a regular maintenance schedule to gather logs and to monitor the use of server resources such as disk space, memory, and the CPU.
- Verify that regular backups are occurring.
- Make arrangements for any regular downtime necessary for offline maintenance activities.
- Make arrangements for any special administrative tasks, for example maintaining and creating audio-text applications and running clean up utilities such as Directory Walker.
- Before reconfiguring the system, for example when migrating from Voice Messaging to Unified Messaging or when upgrading hardware, mock up the existing Cisco Unity system in a lab environment, and test and validate the work.

Feature Parity Between Cisco Unity for Domino and Cisco Unity for Exchange

Cisco Unity 5.0 for Domino does not support:

- Cisco Unity reports.
- The Cisco Unity Inbox.
- Using an IMAP e-mail client to access Cisco Unity voice messages.
- The secure messaging feature.

The following capabilities of Cisco Unity for Exchange are not available in Cisco Unity for Domino:

- Creating a Cisco Unity subscriber and the corresponding Domino user by using the Cisco Unity Administrator. In Cisco Unity for Domino, a subscriber must first be created as a Domino user and then imported into Cisco Unity.
- Functionality of the Deleted Items folder.
- Future delivery.
- Mailbox status.
- Mailbox size.
- Sending broadcast messages to subscribers who are homed on more than one Cisco Unity server.
- Automatic VPIM subscriber directory updates.

The following Cisco Unity tools are not available with Cisco Unity for Domino:

- Extension Address Utility.
- FullDB Import.
- FullDB Export.
- Message Store Manager.
- Move Subscriber Data.
- Public DL Builder.