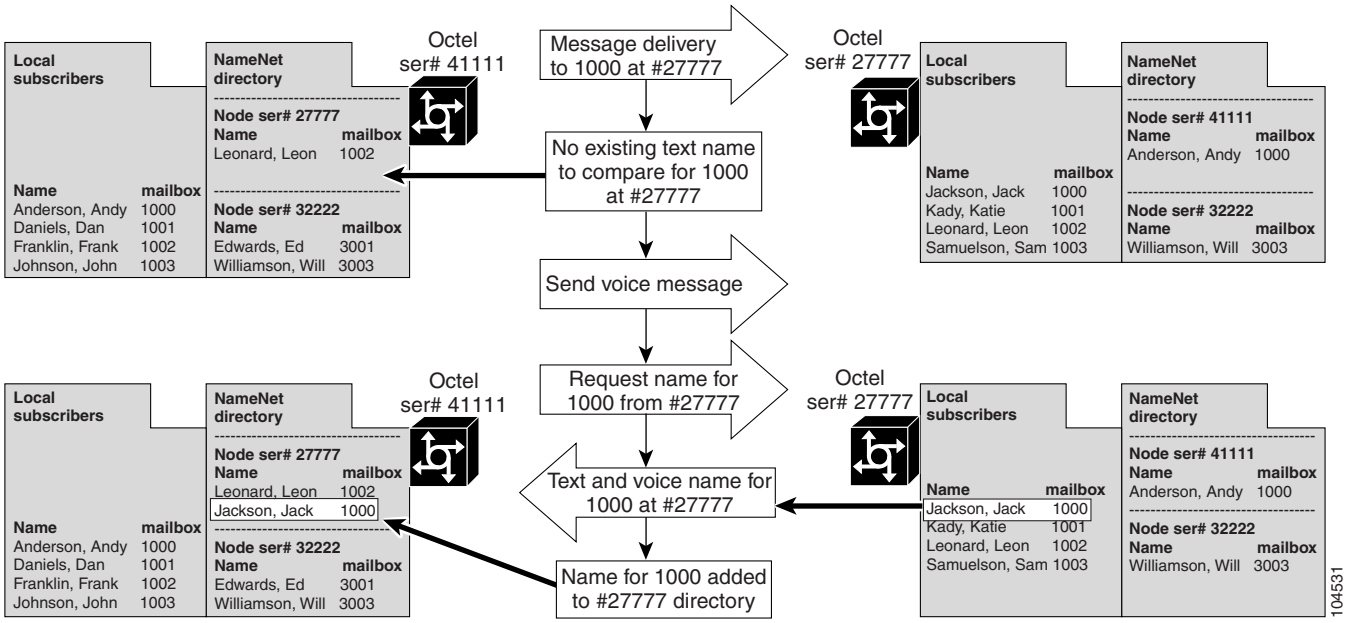
Chapter 4: Interoperability Behavior to Watch for During the Migration

Text Name Mismatch

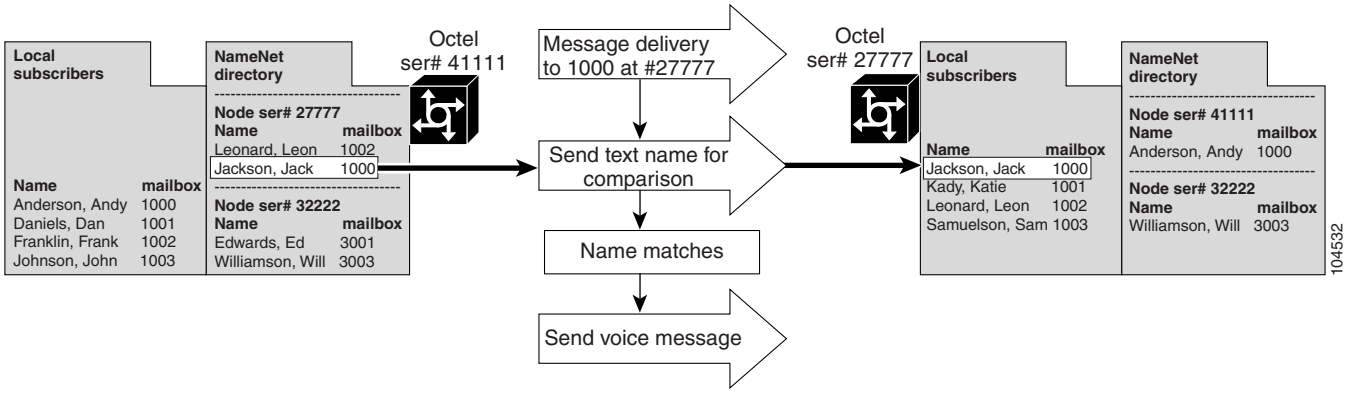
When a voice message is delivered from one Octel analog networking node to another, if the sending node does not have the mailbox number and text name for the recipient in the NameNet directory, in addition to delivering the message the sending node will send an administrative request to the receiving node to retrieve the text and voice name for the recipient mailbox. The mailbox and text name are added to the NameNet directory on the sending Octel. See Figure 28.

Figure 28: Name Propagation Due to Voice Message Sending Within the Octel Analog Network, the First Time a Message Is Sent



When the sending node has a NameNet entry for the recipient, every time a message is delivered to the receiving node for the recipient mailbox number, the sending node first sends the existing text name for the recipient to the receiving node and waits for confirmation that the text name matches the current entry on the receiving node. If the name matches, the message is delivered. See Figure 29.

Figure 29: Name Confirmation During Voice Message Delivery Within the Octel Analog Network, After a Name Has Propagated From One Node to the Node From Which the Voice Message Originates



The behavior shown in Figure 29 is part of the Octel analog networking protocol. The reason for the name comparison implementation is to ensure that messages are not inadvertently delivered to an unintended recipient.

For example, John Doe works for Company A, where his mailbox on the Octel is 1000. John leaves the company. Sam Jones is hired to replace John, and Sam is now assigned mailbox 1000 on the Octel. This information is not necessarily pushed to the other Octels in the network. If the other Octels in the network have the text and voice name of John Doe in their NameNet directories, and if subscribers address a message to the network address associated with mailbox 1000 on the Octel to which Sam is assigned, they will hear the recorded voice name for John Doe. In this circumstance, they would have no way of knowing that they are leaving a message that will be received by someone other than the person whose recorded voice name they just heard.

Therefore, if a name does not match on a message delivery attempt, the sending node does not deliver the message. The message is returned as non-deliverable to the sender. The sending node then schedules an administrative retrieval of the current name for the mailbox from the receiving node. The new text and voice name are retrieved and the NameNet directory on the sending node is updated.

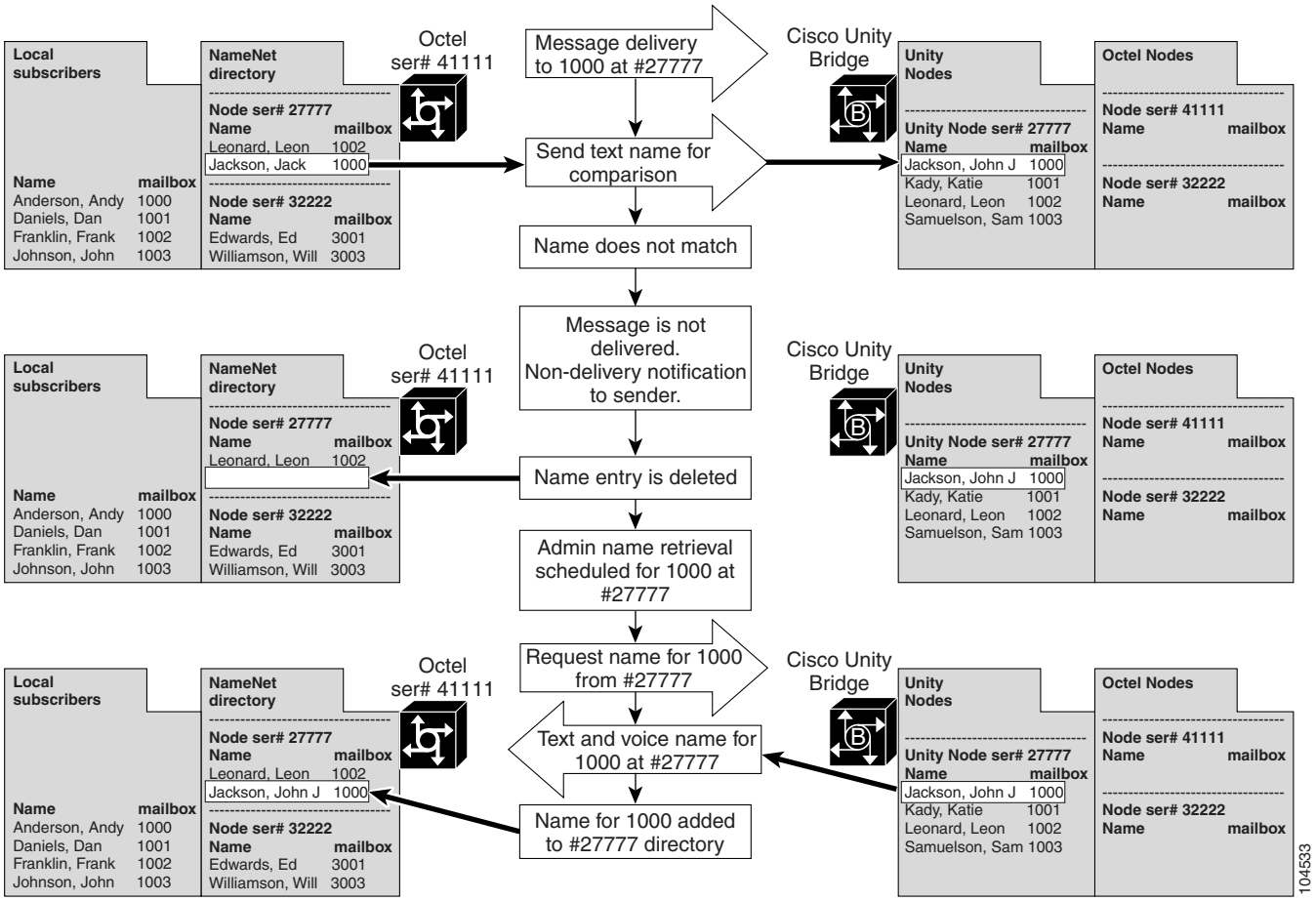
There are obvious cases where differences in the text name would result in a nondelivery, and subsequent administrative retrieval of a current name (for example, John Doe and Sam Jones, or Lisa Anderson and Mark Williams). Other cases are more subtle. For example:

- Tate, Jon –> Tate, John (spelling correction)
- Smith, Mary –> Jones, Mary (marriage or legal name change)
- Smith, Mary –> Smith-Jones, Mary (marriage)

In cases like these, the human leaving the message would likely know that it is actually still the same person at the mailbox. But the name comparison functionality built into the analog protocol cannot make such assumptions.

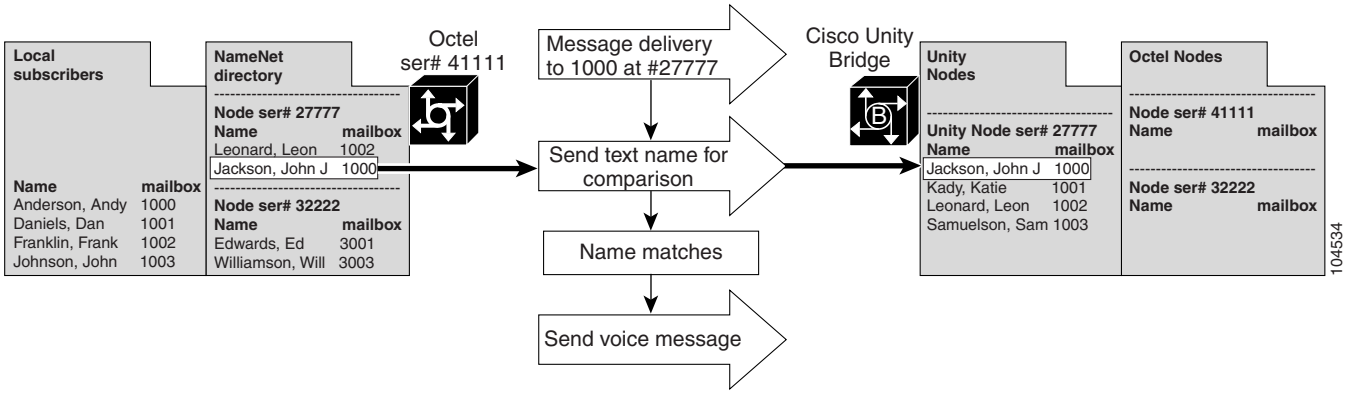
The effect of this implementation, when first migrating an Octel server to Cisco Unity and the Bridge, can be significant. Consider a scenario where an Octel server in the network is being replaced by Cisco Unity and the Bridge. There are a number of reasons why subscriber names may not be spelled exactly the same on Cisco Unity as they were on the former Octel server. For example, many customers use the migration to Cisco Unity as an opportunity to perform cleanup work on the names of subscribers. In addition, the Unity subscriber names stored on the Bridge for propagation to other Octel servers are the display name attributes of the Unity subscriber. The Unity display name allows more characters and flexibility than the Octel mailbox name entry. See Figure 30.

Figure 30: Text Name Mismatch Results in Failure to Delivery a Voice Message



When an Octel node has retrieved an updated name from the Bridge server, successful message delivery to this recipient will resume. See Figure 31.

Figure 31: Successful Text Name Confirmation When Delivering a Voice Message



Loss of NameNet Entries on Octel When Prefixes Are Reassigned

When a migration of Octel subscribers to Cisco Unity requires reassignment of an addressing prefix on the other Octel servers in the network, consider the impact this may have on the availability of NameNet entries for subscribers on the other Octel servers. Consider the example illustrated in Figures 4 and 5 in Chapter 2, which shows a migration scenario involving subscribers in Detroit, Montreal, Seattle, and New York.

In this scenario, the Detroit Octel was configured with a single node for Seattle with addressing prefixes of 2065254, 2065255, and 206326, prior to any Seattle subscribers migrating to Cisco Unity. Over time, as Detroit Octel subscribers sent messages to Seattle Octel subscribers, the NameNet directory for Seattle on the Detroit Octel became populated with the text and voice names associated with Seattle mailboxes 54xxx, 55xxx, and 6xxxx. Detroit subscribers sending network messages to 2065254xxx, 2065255xxx, and 206326xxxx would come to expect that they will hear recorded name confirmation when addressing these subscribers.

When the 206326 subscribers migrate to Cisco Unity from the Seattle Octel, the 206326 prefix is reassigned to the new profile for Cisco Unity and the Bridge, with serial number 59999. Detroit Octel subscribers can still address messages to these subscribers by using a network address of 206326xxxx, but now these addresses are associated with the new 59999 profile, which does not yet have NameNet entries for mailboxes 6xxxx. The first Detroit Octel subscribers to send messages to these Seattle subscribers will not hear recorded name confirmation, but instead will hear confirmation of the mailbox number and location. These first messages will result in administrative calls from the Detroit Octel to the Bridge to retrieve the text and voice names of these subscribers, provided to the Bridge by the Unity bridgehead. Over time, the NameNet directory will repopulate with the text and voice names for the Seattle Unity subscribers and the expected voice confirmation and address-by-name capability will be restored.

This same behavior will occur on other Octel servers in the network as well. Each Octel server keeps its own NameNet directory for the nodes with which it communicates.

If desired, the impact to Octel subscribers can be minimized by manually populating the NameNet directories on the Octel servers for the node profiles to which a prefix has been newly assigned. This will trigger the Octel server to retrieve the text and voice names for these mailboxes from the Bridge, so they are present the first time an Octel subscriber attempts to address to them after the recipients have migrated from Octel to Cisco Unity. Consult your Octel administrator or Octel documentation for details on the specific instructions and capabilities for your particular Octel model and version.

Adding the Network Address of a Remote Octel Subscriber to a Cisco Unity Distribution List

Adding a remote Octel subscriber to a Cisco Unity distribution list requires that a Bridge subscriber for the Octel subscriber be present in the Cisco Unity network. This requirement is sometimes unexpected when subscribers and administrators who are accustomed to working with the Octel system move to Cisco Unity. Octel allows you to add the network address of a subscriber on a remote Octel analog networking node to a distribution list, without requiring that a NameNet entry for the remote subscriber be present. Be sure to consider this when planning whether Bridge subscribers will be explicitly imported on the Cisco Unity bridgehead, and when planning auto-creation and modification settings on the bridgehead for Bridge subscribers.

Notable Nondelivery Receipt Behavior

The Cisco Unity Bridge and Cisco Unity simulate the behavior of an Octel node within the network as closely as possible. But there is a limitation related to the handling of non-deliverable messages.

An Octel server is a single entity, with a self-contained directory of subscriber mailboxes and the capability to place and receive Octel analog networking calls. For this reason, the Octel always has the information necessary to determine whether a message from a remote Octel server should be accepted during processing of the message delivery call. If a recipient Octel determines that a message should not be accepted, for example because of an invalid mailbox, a full mailbox, or a mailbox that is not accepting network messages, it does not accept the message from the remote Octel. See Figures 32 and 33.

Figure 32: Mailbox 1000 on Node with Ser# 20000 Exists and Is Accepting Network Messages

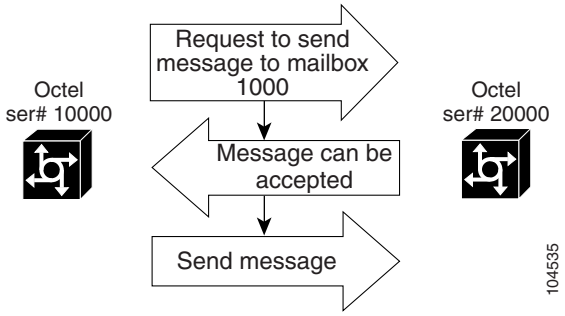
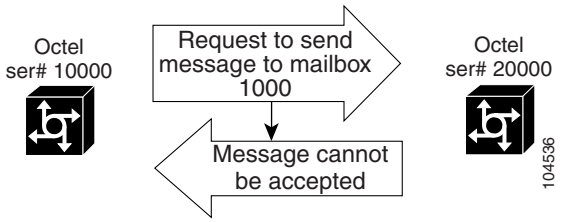
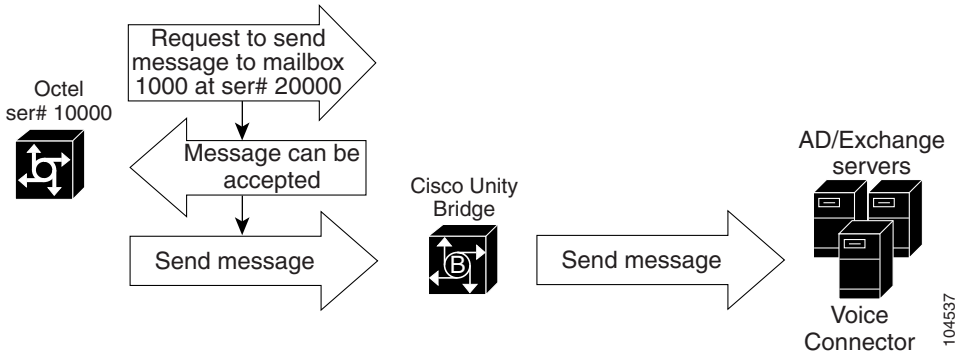


Figure 33: Mailbox 1000 on Node with Ser# 20000 Does Not Exist or Is Not Accepting Network Messages



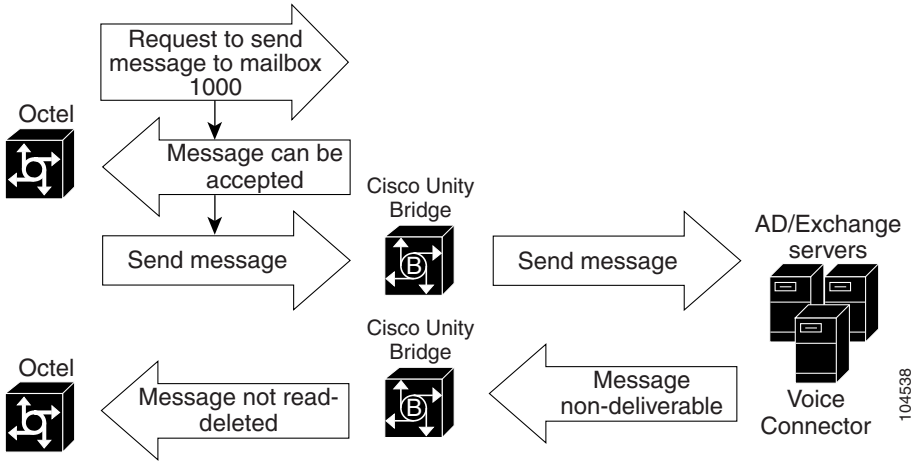
Cisco Unity and the Bridge, on the other hand, synchronize subscriber information via the sending of SMTP messages. The Unity subscriber information on the Bridge is expected to be consistent with the actual Unity database, but this consistency is not assumed for the purpose of receiving messages. For example, occasional lag time in directory updates or other temporary conditions can occur. In addition, specific information about Unity subscriber mailboxes, for example whether the mailbox is full, is not tracked on the Bridge server. For this reason, the Bridge will always accept an inbound message from an Octel server as long as the node information for the destination is valid. See Figure 34.

Figure 34: Bridge Accepts Message for Mailbox 1000, Checking Only That It Is Configured to Accept Messages for Unity Node with Ser# 20000



In a circumstance where the Bridge accepts a message from the Octel, but the message is later returned to the Bridge as non-deliverable, the Bridge must now place a call to the Octel to provide nondelivery notification. Because this circumstance does not normally occur in the Octel analog network (as the Octel server can determine during the delivery call whether to accept the message in the first place), the ability for the Bridge to provide a nondelivery notification to the Octel is limited. In this case, the Bridge delivers a "non-read" notification. The prompt that the Octel subscriber hears when receiving this notification varies depending on the Octel type. In most cases, it will be worded slightly differently than the prompt normally heard when a network message could not be delivered (for example, "the message was not read," or something similar). See Figure 35.

Figure 35: Voice Connector Determines There Is No Cisco Unity Subscriber Configured as Legacy Mailbox 1000 with Remote Node ID of 20000, or That the Mailbox Exists But Cannot Accept Messages



Recorded Names Included in Messages From Octel, But Not From Cisco Unity

When a voice message is delivered from an Octel via Octel analog networking, the sending Octel usually includes the recorded voice name of the sending subscriber at the beginning of the message. Cisco Unity subscribers have the capability to specify in their own subscriber conversation whether to include sender information prior to playing a message. A Cisco Unity subscriber who has enabled this option may experience hearing the recorded name of a sender twice when listening to a message from a remote Octel subscriber: once announced by the Cisco Unity conversation, based on the recorded name stored for the associated Bridge subscriber object, and again as the beginning of the voice message received from the remote Octel server.

When a Cisco Unity subscriber sends a message to a subscriber on a remote Octel server via the Cisco Unity Bridge, the recorded voice name of the sender is not included at the beginning of the message. Octel subscribers receiving network messages from Cisco Unity subscribers via the Bridge may notice this discrepancy.