

снартек 10

Managing Orders

You can create orders for Provisioning products and services, process orders, and change and cancel existing products and services.

All changes to the underlying systems are made through a two-stage process of creating an order and then processing the order. You can set policies for both of these stages. For example, you can configure the system so that one group of users can only create and submit orders, while another group of users can view and perform processing-related activities.

Provisioning contains an automation engine which performs the order processing, including service activation and business flow based on how Provisioning is configured.

Viewing Orders

Orders for a single subscriber are displayed and initiated in the Subscriber Record for that subscriber. The Subscriber Record lists all existing products for the subscriber.

In the Subscriber Record, you can do the following:

- Order a new product; see:
 - Ordering Products and Services, page 10-4
 - Example Order Procedure, page 10-11
 - End-User Association for Line Products, page 10-16
 - Ordering Shared Phones and Lines, page 10-18
 - Ordering Presence Services, page 10-22
 - Managing Phones Without an Associated Subscriber, page 10-22
- Update or change an existing product; see:
 - Replacing Existing Phones, page 10-24
 - Changing Phone Settings, page 10-25
 - Changing Owners of Phones, page 10-26
 - Changing Line Information, page 10-28
 - Changing Extension Mobility Access Information, page 10-29
 - Changing Remote Destination Profile Information, page 10-30
 - Changing Remote Destination Profile Line Information, page 10-31
 - Unlocking Voicemail Accounts, page 10-32

- Cancel a product (see Canceling Products, page 10-37).
- View provisioning attributes for a product (see Viewing the Provisioning Attributes for an Ordered Product, page 10-2).
- View the inventory for a product (see Viewing the Inventory for an Ordered Product, page 10-2).
- Add notes for a product (see Adding Notes to an Ordered Product, page 10-3).

Accessing a Subscriber Record

If you are assigned the Ordering authorization role, you can access your own subscriber record, and the subscriber records of other users.

Step 1	Choose Deploy > Subscriber Management > Search Subscribers .
Step 2	In the Search Subscribers for Ordering Services page, enter the subscriber information to search on, then click Search .
Step 3	Click the desired subscriber.

Viewing the Provisioning Attributes for an Ordered Product

Step 1	Select Provisioning I	Data from the drop	o-down list in the to	p right corner	of the Home page.
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- **Step 2** Enter subscriber information in the search field, and press Enter.
- **Step 3** In the Subscriber Record Details page, Hover over the product name for which you want to view the provisioning attributes.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

Step 4 Click View.

The View Product from Record pane appears, listing all of the product's provisioning attributes. This pane is read only. For information on configuring provisioning attributes, see Configuring Provisioning Attributes, page 11-15.

Viewing the Inventory for an Ordered Product

Step 1	Select Provisioning Data from the drop-down list in the top right corner of the Home page.
Step 2	Enter subscriber information in the search field, and press Enter.
Step 3	In the Subscriber Record Details page, Hover over the product name for which you want to view the inventory.
	The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.
Step 4	Click Inventory . The Product Inventory Details pane appears, listing the product's inventory.

Adding Notes to an Ordered Product

- **Step 1** Select **Provisioning Data** from the drop-down list in the top right corner of the Home page.
- **Step 2** Enter subscriber information in the search field, and press Enter.
- **Step 3** In the Subscriber Record Details page, Hover over the product to which you want to add a note.
- **Step 4** Click **Notes**. The Subscriber Record Detail Notes page appears.
- **Step 5** In the Add New Note field, enter the desired information.

Step 6 Click Append Note.

Step 7 Click Close.

Ordering Products and Services

Using Order Management, you can create orders for telephone equipment and services. You can create orders for individual products, or you can order bundled products and services.

Users assigned the Ordering authorization role can add, change, or cancel their own orders or those of other subscribers.

The length of time it takes to provision an order can vary. To verify if the order has successfully completed, go to the subscriber record of the user (see Accessing a Subscriber Record, page 10-2). The products are listed in the Subscriber Record Options pane, and the View Orders section shows the order with the status as Complete. Also, you can perform an order search for the order number.



After the system has been idle for a long period of time, the first order placed may take longer than usual.

While placing orders, remember the following:

- While placing orders for products and services on a Unified Message Processor based on Cisco Unity devices (Cisco Unity, Cisco Unity Connection, and Cisco Unity Express), not all the products and services are available. This is because the devices do not support all products and services. Table 10-2 lists the orderable and nonorderable voice products and services for Cisco Unity devices.
- While placing orders for products and services on either Cisco Unified Communications Manager Express or Cisco Unity Express, be careful when entering Cisco IOS CLI commands (when configuring provisioning attributes through the Advanced Order Configuration pane). Your authorization role does not restrict what you can configure.
- Some attributes may not be supported by a particular phone type on a given protocol, so when placing phone orders, you should only set values for attributes that are supported by the chosen phone type and protocol. If you do not, failed orders can result.
- Provisioning synchronizes unsupported infrastructure objects like Intercom Calling Search Space and Intercom Route Partition from Cisco Unified Communications Manager. If these unsupported objects are used in Provisioning orders, it will result in error.
- If the Enable Voice Gateway feature property is set to N, the Order Entry screen will display analog phones. If the property is set to Y, then the analog phones are not shown in the screen.
- To order Analog phones, you must add Voice Gateway References to the service area in the Service Area Configuration screen.

Table 10-1 describes the various Provisioning products and services that you can order.

Product or Service	Description		
Enable Mobility Support	Enables Mobility for the selected subscriber on the currently selected Call Processor.		
	When ordering using default parameters, the following provisioning attributes are used:		
	• Enable Mobility: True		
	Enable Mobile Voice Access: True		
	Max Desk Pickup Wait Time: 1000 ms		
	• Remote Destination Limit: 4		
	Primary User Device		
	This product is available only for Cisco Unified Communications Manager 6.0.x and later.		
	In this release, ordering this product will not result in provisioning any Remote Destination Profiles. Since Remote Destination Profile and Remote Destination Profile Line are two separate products, you can order and configure them.		
Enable Presence	Enables presence messaging updates by enabling the subscriber's Presence Server license on a Call Processor. This option is available only for Cisco Unified Communications Manager 8.x.		
	You will not be able to see this product for ordering until you associate the product to a subscriber role. (See Associating Products to a Subscriber Role Type, page 8-11.)		
Enable Presence Client	Enables the use of Cisco Unified Personal Communicator by enabling the subscriber's Unified Personal Communicator license on a Call Processor. This is a bundle of Enable Presence Client and Client User Settings.		
	Enable Presence Client is available only for Cisco Unified Communications Manager 8.x. This product is available only when you order Enable Presence.		
	You will not be able to see this product for ordering until you associate the product to a subscriber role. (See Associating Products to a Subscriber Role Type, page 8-11.)		
Client User Settings	Enables Unified Personal Communicator user settings on a Unified Presence Processor. Client User Settings can be ordered only through bundle products such as Enable Client Service or Presence Service.		
	You will not be able to see this product for ordering until you associate the product to a subscriber role. (See Associating Products to a Subscriber Role Type, page 8-11.)		

 Table 10-1
 Provisioning Products and Services

Product or Service	Description
Enable SoftPhone Support	SoftPhone support enables users to use their PCs either in conjunction with a physical phone (both would ring at the same time), or to run a CTI port, which is a virtual phone (one that is defined on the Cisco Unified Communications Manager but does not physically exist).
	Cisco Unified Communications Manager Express does not support SoftPhone. You will not be able to order this product when placing orders on a Call Processor based on a Cisco Unified Communications Manager Express.
	If you already have SoftPhone support on all your available Call Processors, the Enable SoftPhone Support product will not appear in your product list. If there is a Call Processor available to you, then a list of valid Service Areas appears for the specific Call Processor.
	When ordering SoftPhone support, you must specify the server name or IP address of the user's computer in the Associated PC field.
	Although you enable SoftPhone support based on Service Area, you can enable SoftPhone support only once per Cisco Unified Communications Manager, even if there are more Service Areas associated with the Cisco Unified Communications Manager.
	The SoftPhone Support product applies to a Cisco SoftPhone that uses a CTI port. Cisco IP Communicator is another type of SoftPhone application that does not use CTI ports to communicate with the Cisco Unified Communications Manager, but acts as a regular hard phone with a MAC address. To order Cisco IP Communicator, you must order a physical Phone product, and select IP Communicator as the type of phone.
	Enable SoftPhone Support is required for Cisco Unified Client Services Framework to function as a desktop phone on a Cisco Unified Client Services Framework client.
Enhanced Phone Service	Includes a phone, phone line, and voicemail. The line is automatically associated with the phone that you ordered, and the voicemail is automatically associated with the line.
	When placing an order for Enhanced Phone Service on a Cisco Unified Communications Manager Express, you must enter the call-forward provisioning attributes. When entering an order, click Advanced Order Configuration and in the Voicemail Configuration Template provisioning attribute, enter the following commands:
	call-forward busy <voice dn="" mail="" port=""> call-forward noan <voice dn="" mail="" port=""> timeout <seconds></seconds></voice></voice>
	For a Cisco Unity Express Service Area, enter only alphabetical characters in the Voice Mail Display Name field. If you use other types of characters, orders for the subscriber will fail.
	For Cisco Unity Express Service Area, you cannot add, modify, or cancel orders when the infrastructure or subscriber synchronization is in progress.
Extension Mobility Access or Access with Line	Enables users to log into a specific phone type and have their phone device profile applied to it. This product is available either by itself, or bundled with a line.
	Extension Mobility is available for ordering only if the optional extension mobility details are entered for a Call Processor when it is added to Provisioning.
	When placing an order for Extension Mobility Access in a Service Area that supports SIP phones, select a phone button template only for the following Cisco Unified IP Phones: 7911, 7941, 7942, 7945, 7961, 7962, 7965, 7970, 7971, or 7975. The order will fail if Extension Mobility is not supported on the selected phone button template.
	Extension Mobility is not supported on Cisco Unified Communications Manager Express or Cisco Unified Communications Manager 4.0.

 Table 10-1
 Provisioning Products and Services (continued)

Product or Service	Description		
Extension Mobility Line	The directory number/line ordered for a device profile on a Cisco Unified Communications Manager. It can be ordered as an upgrade when the user already has Extension Mobility Access.		
	Extension Mobility is not supported on Cisco Unified Communications Manager Express or Cisco Unified Communications Manager 4.0.		
Line	Create an order to add a line or directory number for a user who already has a phone. No shipping, assignment, receipt, or tracking (for returns) steps are required for provisioning a new Line product.		
	The Upgrade designation next to the Line product indicates that a line is being ordered for an existing phone.		
	For Call Processors, the display for a line cannot exceed 30 characters. Make sure that the combination of characters for First Name and Last Name does not exceed 30 characters. If this limit is exceeded, when you place an order, the Call Processor sends an error.		
	End User Association is automatically provisioned for Line products.		
	For more details, see End-User Association for Line Products, page 10-16		
Line on a Shared Phone	Order a Line on a Shared Phone when users require their own separate lines on the same physical phone. When this product is provisioned, the phone and all lines on it are displayed in each of the user's subscriber record.		
	The Shared icon (2) appears next to the phone that is shared in the subscriber record.		
Messaging Service	Consists of a phone, phone line, voicemail, and email.		

 Table 10-1
 Provisioning Products and Services (continued)

Product or Service	Description
Phone	Order a phone that does not have a line or a directory number associated with it.
	While ordering a SIP phone, select Yes for Enable Extension Mobility for the following Cisco Unified IP Phones only: 7911, 7941, 7942, 7945, 7961, 7962, 7965, 7970, 7971, 7975. The order will fail if Extension Mobility is not supported on the selected SIP phone.
	When entering a device name, follow these guidelines:
	Cisco Unified Personal Communicator:
	- The device name must match the username.
	- UPC is automatically added to the device name after the order is provisioned.
	 The device name must consist of uppercase letters (A-Z) and numbers (0-9). All other characters are ignored.
	- The device name can contain twelve additional characters after UPC.
	For example, if the username is john_jackson, for the Cisco Unified Personal Communicator device name, you must enter JOHNJACKSON.
	• Dual Mode for iPhone:
	 It must contain the prefix TCT. If you do not enter the prefix, Provisioning will automatically add it.
	- It can contain up to fifteen characters (including the prefix).
	 It can only consist of alphanumeric characters (A-Z, a-z, 0-9). Provisioning converts any lowercase letters to uppercase letters before pushing the information to the device.
	• CTI port—Must contain 1 to 15 characters. Valid values are alphanumeric characters (A-Z, a-z, 0-9), underscore (_), hyphen (-), and period (.).
	• Cisco IP Communicator—Must contain 1 to 15 characters. Valid values are alphanumeric characters (A-Z, a-z, 0-9), underscore (_), hyphen (-), and period (.).
	• Cisco Services Framework—Must contain 1 to 15 characters. Valid values are alphanumeric characters (A-Z, a-z, 0-9).
Phone Service	Consists of a phone and phone lines.
	While ordering Phone Service, the maximum number of lines is dependent on the phone button template for the phone type (if a phone button template is available). For Cisco Unified Communications Manager Express, because no phone button templates available, the maximum number of lines is defined in the product catalog for each phone type.
	When placing Phone Service orders for Cisco Unified Communications Manager Express, note the following:
	• Provisioning always provisions the ephone-dn with a dual-line.
	• During a subscriber synchronization, Provisioning synchronizes all the ephone-dns with single-line, dual-line, and octo-line.
	• The device should not have orphan ephone-dns (those that are not used by, or associated to, an ephone).

 Table 10-1
 Provisioning Products and Services (continued)

Product or Service	Description			
Remote Destination Profile	Order Remote Destination Profile for subscribers, configure their attributes, and allow selection/configuration of a Remote Destination Profile Line, which supports Single Number Reach (SNR).			
	Remote Destination Profile does not support Change Owner and Replace operations.			
	You will not be able to see this product for ordering until you associate the product to a subscriber role. (See Associating Products to a Subscriber Role Type, page 8-11.)			
Remote Destination Profile Line	Order unlimited Remote Destination Profile Lines in a single Remote Destination Profile. Remote Destination Profile Line supports Auto-assign or Chosen types of Lines.			
	Remote Destination Profile Line can be shared among subscribers and the same destination can be shared between Remote Destination Profile, Line, and Enable Mobility Access Line. In this scenario, all types of lines are displayed as shared lines.			
	In Remote Destination Profile, you can order Voice Mail or Extension Mobility as they are ordered in the Line products.			
	You can order Remote Destination Profile with any subscriber role but not as a pseudo user.			
	You will not be able to see this product for ordering until you associate the product to a subscriber role. (See Associating Products to a Subscriber Role Type, page 8-11.)			
Remote Destination Profile Service	Enable the Remote Destination Profile service for all Service Areas to shares this Call Processor and also add a Remote Destination Profile Line.			
	You can order Remote Destination Profile with any subscriber role but not as a pseudo user.			
	You will not be able to see this product for ordering until you associate the product to a subscriber role. (See Associating Products to a Subscriber Role Type, page 8-11.)			
Single Number Reach Service	Configure an Enable Mobility, Remote Destination Profile, and Remote Destination Profile Line.			
	For mobility to work on a desktop phone, you must do the following:			
	• Configure the Line on the Phone and Remote Destination Profile to be shared.			
	• Configure the User ID that is used for the Remote Destination as an Owner.			
	• Create a softkey template in Cisco Unified Communications Manager and assign it to a desk phone. Provisioning does not support softkey customization. You must create a customized template in Cisco Unified Communications Manager.			
	You will not be able to see this product for ordering until you associate the product to a subscriber role. (See Associating Products to a Subscriber Role Type, page 8-11.)			
Unified Messaging	You can create an order to add the Unified Messaging feature if you already have email and voicemail. The Unified Messaging feature allows the retrieval of email from your voicemail, and the retrieval of voicemail from your email.			
	In Cisco Unity, you will be enabling the Text-to-Speech (TTS) capability. In Cisco Unity Connection, you will be enabling the TTS and Internet Mail Access Protocol (IMAP) capability.			
	The Upgrade designation next to the Unified Messaging product indicates that the existing email and voicemail are being upgraded to include the Unified Messaging feature.			

 Table 10-1
 Provisioning Products and Services (continued)

Product or Service	Description			
Unified Messaging Service ¹	A Unified Messaging Service order includes the Line, Phone, Voicemail and Email, and Unified Messaging products.			
	The list of products and services that are available to users is based on user roles and Provisioning system configuration. To modify this list to include the products and services you require, contact your Provisioning administrator.			
User Services	Enables presence messaging by enabling the subscriber's presence service settings on a Call Processor.			
	To configure User Services, do the following:			
	1. Add the Presence Server to Provisioning and perform the Infrastructure synchronization.			
	2. Add the Presence Server to the Service Area that will be used for ordering.			
	Note User Services is available for Cisco Unified Communications Manager 9.0 and higher.			
Voicemail and Email (bundle)	Create orders for additional Voicemail and Email products if the user already has a line.			
	The Upgrade designation next to the Voicemail and Email Service product indicates that the line product is being upgraded to include voicemail and email.			
	When placing an order for voicemail on Cisco Unified Communications Manager Express, you must enter the call-forward provisioning attributes. When entering an order, click Advanced Order Configuration and in the Voicemail Configuration Template provisioning attribute, enter the following commands:			
	call-forward busy <voice dn="" mail="" port=""> call-forward noan <voice dn="" mail="" port=""> timeout <seconds></seconds></voice></voice>			
Voicemail (individually)	Create orders for additional Voicemail products if the user already has a line.			
	The Upgrade designation next to the voicemail product indicates that the Line product is being upgraded to include voicemail.			
	When placing an order for voicemail on a Cisco Unified Communications Manager Express, you must enter the call-forward provisioning attributes. When entering an order, click Advanced Order Configuration and in the Voicemail Configuration Template provisioning attribute, enter the following commands:			
	call-forward busy <voice dn="" mail="" port=""> call-forward noan <voice dn="" mail="" port=""> timeout <seconds></seconds></voice></voice>			
Email (individually) ¹	Create orders for additional Email products if the user already has a line and voicemail.			
	The Upgrade designation next to the Email product indicates that the Line product is being upgraded to include email.			

Table 10-1 Provisioning Products and Services (continued)

1. After ordering Email or Unified Messaging Service on Cisco Unity, there is an initial delay in appending the full Domain information to the email address in the Subscriber Record Details page. After placing the order, you should run a subscriber synchronization and a Domain synchronization so that the complete email address appears.

Cisco Unity Device	Products and Services	
Cisco Unity	Orderable:	
	• Voicemail and Email (bundle)	
	• Unified Messaging	
	Unified Messaging Service	
	Messaging Service	
	Not orderable:	
	• Voicemail or Email individually	
	Enhanced Phone Service	
Cisco Unity Connection	Orderable:	
	• Voicemail and Email (bundle)	
	• Voicemail or Email individually	
	Enhanced Phone Service	
	• Unified Messaging	
	Unified Messaging Service	
	Messaging Service	
Cisco Unity Express	Orderable:	
	Enhanced Phone Service	
	• Voicemail	
	Not orderable:	
	• Unified Messaging	
	Unified Messaging Service	
	• Voicemail and Email (bundle)	
	• Email individually	
	Messaging Service	

Table 10-2	Supported	Cisco Unit	v Products	and Services
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Example Order Procedure

Creating orders for all products and services follows the same basic procedure. This example shows the procedure for ordering Unified Messaging Service.

A user might not have access to all products and services. The list of products and services that appear in a given user's subscriber record depends on the following:

- User role assigned to the user, and the Domains and Service Areas available to the user.
- Availability of resources to support delivery within the Service Areas (for example, a Cisco Unity or Cisco Unity Connection system must be available to provide Unified Messaging).
- Provisioning system configuration.

- Product dependencies:
 - Line requires an existing Phone.
 - Voicemail and Email require an existing Line.
 - Unified Messaging requires Email.
 - Extension Mobility Line requires Extension Mobility Access.

Table 10-3 describes the various fields for ordering products and services. When these fields appear during the order process, they are always required.

GUI Element	Description		
Associated PC	The name (DNS resolvable) or IP address of the computer to be used with the SoftPhone support.		
Email ID	Enter the email ID. It cannot contain spaces.		
Display Name (Email)	Enter the name to be used in the From field of the email.		
Enable Extension Mobility	Select Yes or No.		
Extension Mobility Line	Select one of the following:		
	Auto-assigned—System automatically assigns a directory number.		
	Chosen Line—User specifies a directory number. The directory number cannot include dashes or spaces.		
Line Type	Select one of the following:		
	• Auto-assigned—System automatically assigns a directory number.		
	• Chosen Line—You specify a directory number. The directory number cannot include dashes or spaces.		
	After the line is configured, to save your settings, you must click the save (]]) icon on the right side of the page.		
	After you make a selection, the Advanced Order Configuration option appears on the page. You can then configure the provisioning attributes for the line. You can copy the provisioning attributes of a configured line on the same phone by selecting the line from the Copy Line field and clicking Done .		

Table 10-3 Order Entry Fields

GUI Element	Description			
Directory Number	You can either enter a directory number directly into the field, or you can choose a directory number by clicking the Chooser icon (I).			
	If you click the Chooser icon, a Directory Number search page appears. To use the Directory Number search page, do the following:			
	1. In the Directory Number search page, choose your search criteria from the following:			
	• Directory Number—Enter a specific number to search for.			
	• Available DNs—When selected, all directory numbers that are available in the Provisioning database are displayed.			
	• Reserved DNs—When selected, all directory numbers that are reserved for the subscriber for whom the order is being placed are displayed.			
	• DN Blocks—The directory number blocks that are configured for the Service Area on which the order is being placed are displayed.			
	2. Click Find.			
	Your search results appear.			
	3. Click the desired directory number.			
	The number is entered into the Directory Number field.			
Line Position	During the order process, a page appears that lists the available line positions on the phone. Next to the line position, it indicates whether or not the line position is available.			
	In the line position page, you can do the following:			
	• Configure the line type—Click Not Assigned next to the line, and in the next page, configure the line type. After the line is configured, you must click the save ()) icon on the right side of the page, to save your settings.			
	• Change line position—Click the up or down arrow beside the line position.			
	Line position is not supported on Cisco Unified Communications Manager Express or Extension Mobility Access Lines.			
Selected Phone	Select a phone from the list.			
MAC Address	(Optional) Select a MAC address or enter one. In case of Analog phones, MAC address is generated based on the selected voice port.			
Phone Type	Select a phone type from the list.			
Target Phone	Select a target phone from the list.			
Phone Button Template	List of available Phone Button Templates.			

Table 10-3Order Entry Fields (continued)

GUI Element	Description
Analog Voice Gateway	Select an analog voice gateway reference.
Reference	Before executing the subscriber synchronization, the infrastructure synchronization should be executed. During subscriber synchronization, if the synced back analog phone is associated to a voice gateway reference that does not exist in IM, then the voice port instance creation and its association will be skipped. As a result, the analog phone will not be manageable through CUPM.
	Synchronization of analog phones and IM instance creation will be done only for the Call Processor versions 6.x and above. For Call Processors versions 5.x and below the analog phone instance creation will be skipped since the analog voice gateway support is provided only for Call Processor version 6.x and above.
Name	Name of the Remote Destination Profile.
Description	Description of the Remote Destination Profile.
Selected Remote Destination Profile	Name of the selected Remote Destination Profile.
Service Area	List of available Service Areas.
	If a Service Area has a Unity Connection configured as a Unified Messaging Processor, and the Unity Connection does not have an external email server, Provisioning will not list this Service Area as an option when ordering email.
Unified Messaging	List of available emails for which you can enable Unified Messaging.
Use Dummy MAC Address	Used for Tool for Auto-Registered Phones Support (TAPS). If you choose <i>Y</i> , Provisioning creates a phone with a dummy MAC address, which is unique in the system.
	After a TAPS phone is provisioned on the Cisco Unified Communications Manager and updated with a real MAC address, you must run a subscriber and Domain synchronization in Provisioning. This updates the dummy MAC address in Provisioning with the real MAC address.
	After a dummy phone is ordered, change and cancel orders do not require a subscriber or Domain synchronization.
Voicemail Alias	Enter an alias for the voicemail.
Voicemail Display Name	Enter a display name for the voicemail.
Voiceport	Based on the Analog Voice Gateway Reference field, the relevant Voiceport is populated. You can view the list of occupied and available ports. Only the available port will be selected for ordering.
Advanced Order Configuration	Lists the available provisioning attributes for the ordered service or product. This allows you to set provisioning attributes when placing an order (for more details on provisioning attributes, see Configuring Provisioning Attributes, page 11-15).
	Click the plus sign () next to the Advanced Order Configuration option to expand this pane.
	To unset the value of a provisioning attribute that has a numeric value in Cisco Unified Communications Manager, you must enter a zero for the value. If you only clear the value, the provisioning attribute is not unset in Cisco Unified Communications Manager.
	Advanced Order Configuration is available only to users who are assigned the Advanced Ordering authorization role.

GUI Element	Description			
Choose a reserved phone	Opens a search page that lists reserved phones. A reserved phone is booked for a specific subscriber.			
	Note	Reserved phones are not supported for analog phones.		
Copy phone	Opens subscr an exis	a search page that lists all the phones in the system that are supported by the iber role. Copy phone allows you to provision a new phone with the same settings of sting phone.		
	To cop the ph	by settings, in the search page, select a phone and click OK to confirm that you want one's settings copied to the new phone.		
	This fo	eature is available only to users with the Advanced Ordering role.		
	When subscr same (you have Global access, you can copy all the phones that are orderable for the iber, including managed and unmanaged phones, as long as the phone belongs to the Call Processor.		
	When the sul the sar	you have Domain access, you can only copy managed phones that are orderable for oscriber and are in the user's manageable Domains, as long as the phone belongs to ne Call Processor.		
	Becau phone	se some settings are unique to each phone, not all settings are copied to the new. The following settings are not copied to the new phone:		
	• D	rectory Number		
	• M	AC Address		
	• D	evice Description		
	When voicen additio	a phone is copied, services are not copied to the new phone. For example, if lines, nails or emails exist on the phone, they will not be copied to the new phone. In on to this, the set only attributes associated with the phone are not copied.		
	Throu ₂ creatir	gh Copy phone you can only copy the provisioning attributes that are set while ig an order.		
	If the support	Cisco Unified Communications Manager version for the copied phone does not an attribute, or if the copied phone type does not support an attribute, the attribute red on the new phone.		
	You ar to ana	e allowed to copy only an analog phone to another analog phone. Copying an IP phone log phone is not allowed.		
	When copied	a phone is copied, the provisioning attributes that are set during the add order are only .		
	Once t Comm have b	he Order is completed, in Cisco Unified Communications Manager, the Overriding on settings check box is enabled. It means that the default attributes of the new phone een modified.		

Table 10-3 Order Entry Fields (continued)

- **Step 1** Select **Provisioning Data** from the drop-down list in the top right corner of the Home page.
- **Step 2** Enter subscriber information in the search field, and press Enter.

• You ca	an start a new order from the Subscriber Record page by clicking New Order.	
In the Sub	scriber Record Details page, click New Order.	
The Order	Entry wizard appears in the right pane.	
Select a Service Area and then click Continue .		
The ordera page.	ble products are displayed. Only the products that you are allowed to order will appear on this	
Select the	Select the product that you want to order and click Continue .	
Follow the Order Entry wizard, entering the required information for the product.(For explanations of the fields, see Table 10-3.)		
When placing orders, note the following:		
• If more than one Service Area is available, the system provides a drop-down list for you to choos from.		
• The Basic <product type=""> Information pane enables you to provide specifications for the selected product.</product>		
• The Advanced Order Configuration pane enables you to access provisioning attributes for the ordered service or product. Only users assigned the Advanced Order or Administrator authorization role can access the Advanced Order Configuration pane. For information on provisioning attributes, see Configuring Provisioning Attributes, page 11-15.		
Note	To unset the value of a provisioning attribute that has a numeric value in Cisco Unified Communications Manager, you must enter a zero for the value. If you only clear the value	

- Step 8 Click Confirm.
- **Step 9** Click **OK** in the confirmation order pane. The order number appears in the View Orders section of the subscriber record.

End-User Association for Line Products

End-user association for Line products is automatically provisioned for Cisco Unified Communications Manager devices when ordering any of the following Line products for Provisioning:

- Line
- Line on a Shared Phone
- Extension Mobility Line
- Remote Destination Profile Line

End user refers to the primary subscriber/ordering subscriber associated with the Phone, Extension Mobility Access, or Remote Destination Profile.

Association will be created based on the following rules:

- For ADD order for any Line product, association is automatically provisioned for all the Line products.
- For Change Order on any Line product, association is created as follows:
 - If end-user association does not exist, association is provisioned between ordering Subscriber ID and Line products.
 - If end-user association exists and if ordering Subscriber ID is already associated, association is
 preserved.
 - If end-user association exists and if it is not ordering Subscriber ID, a new association is provisioned for the ordering Subscriber along with already existing Subscribers.
- For Cancel Orders of any Line products, as the product itself is deprovisioned, end-user associations are also removed from Cisco Unified Communications Manager.
- While you modify or replace phone orders, you should provide supported values based on the phone type. If valid values are not provided, the order will move to an unrecoverable state. For example, Iphone and Nokia has specific set of supported values.
- For Replace Orders of phone, end-user association is preserved from the old phone.
- For Change Owner cases (applicable only for IP Phone):
 - End users associated with lines of previous owner should be replaced with new owner association.
 - When changing owner of a Phone from a registered user to a pseudo user, association is de-provisioned.
 - When changing owner from a pseudo user to a normal user, association is added.

If a line is not provisioned through Provisioning, the end-user association for the line may not get created in Cisco Unified Communications Manager after it is synchronized to Provisioning.

If this occurs you should run the Line to End-user Association utility. If you do not run the utility, the presence status for any lines other than the primary extensions will not be reported and the Single Number Reach Service product will not work correctly.

For information on running the Line to End-user Association utility, see http://www.cisco.com/en/US/products/ps12363/prod_installation_guides_list.html.

Subscriber Synchronization

During the Subscriber synchronization, Provisioning synchronizes all end-user associations of Line objects from the device.

- Only Cisco Unified Communications Managers versions greater than 6.0.x are provisioned with this association.
- This association is not applicable for pseudo subscribers (see Using the Pseudo Subscriber Role, page 8-10).

Limitation

You cannot unset a particular end user from a list of associated end users. To work around this limitation, remove the user association manually from the device and synchronize Cisco Unified Communications Manager with Provisioning.

Ordering Shared Phones and Lines

You can configure both shared phones and lines within Provisioning. The following scenarios are possible:

- Common shared line—Multiple users share the same line from different phones.
- Primary shared line—Multiple users share the same line from different phones, but one user's line display is used for all users (for example, a help desk). Users can also have their own lines separate from the shared line.
- Shared phone—Multiple users share the same phone, but have separate lines from that phone.

Notes on Ordering Shared Phones and Lines

When ordering shared lines and phones, remember the following:

- If the second subscriber orders a line on a shared phone that already has a line with voicemail, email, and unified messaging, he will not see these products for the first line in his subscriber record. This also occurs when a shared line is ordered.
- If the second subscriber deletes a shared phone, it is still displayed in the subscriber record for the first subscriber, and it is still present in Cisco Unified Communications Manager. But if the second subscriber deletes any lines on the shared phone, those lines are deleted from the subscriber record for the first subscriber and from Cisco Unified Communications Manager.
- If the second subscriber deletes a shared line, it is deleted from the second subscriber's phone on Cisco Unified Communications Manager. But it is still displayed in the subscriber record for the first subscriber, and is still present in the first subscriber's phone on Cisco Unified Communications Manager.
- The first subscriber should not order a new voicemail for the second subscriber's line (which displays a voicemail in its own subscriber record). This second voicemail will fail on Cisco Unity because a voicemail already exists with the same directory number.
- Any changes made to the directory number provisioning attributes that are set on a shared line are also applied to all the lines that share the same directory number. The directory number attributes for the existing line are applied to the new shared line.
- If the first subscriber deletes a shared line or a phone, the associates of the shared line or a phone will move to the second subscriber.

The directory number attributes available for a line are:

- AAR Group
- Alerting Name
- Auto Answer
- Call Pickup Group
- Calling Search Space
- Forward All
- Forward Busy Internal
- Forward Busy External
- Forward No Answer Internal
- Forward No Answer External

- Forward No Coverage Internal
- Forward No Coverage External
- Unregistered Internal
- Unregistered External
- MLPP Calling Search Space
- MLPP No Answer Ring Duration
- MLPP Target
- Network Hold Audio Source
- No Answer Ring Duration
- Route Partition
- User Hold Audio Source
- Voicemail Profile

Setting Up a Common Shared Line

You can configure a scenario where multiple users share the same directory number by using lines on their own phones:

- Each user's name is displayed on the shared line on their own phone.
- Caller ID displays the user's name when they call other people.
- Each user's own phone and the shared line are displayed in their own subscriber record.

Example Procedure for Setting Up a Common Shared Line

- **Step 1** Select **Provisioning Data** from the drop-down list in the top right corner of the Home page.
- **Step 2** Enter the subscriber information in the search field, and press Enter.
- Step 3 In the Subscriber Record Details page, click New Order.

The Order Entry wizard appears in the right pane.

Step 4 Select a Service Area and then click **Continue**.

Step 5 Select Line on a Shared Phone and then click Continue to start the order process.The Configure Product page appears.

- **Step 6** Do the following:
 - Select Chosen Line for the line on a shared phone type.
 - Select the Line Position for the line.
 - Specify the Target Phone.
 - Specify the directory number for the shared line.
- **Step 7** Expand the Advanced Order Configuration pane.
- Step 8 In the Directory Number Information pane, select the Route Partition for the directory.
- **Step 9** Enter the required information in the Directory Number Settings pane.
- **Step 10** Enter the required information in the AAR Settings pane.

Step 11	Enter the required information in the Call Forward and Call Pickup Settings pane.
Step 12	Enter the required information in the MLPP Alternate Party Settings pane.
Step 13	Enter the required information in the Line Particular Settings pane.
Step 14	Enter the required information in the Call Waiting Settings pane.
Step 15	Enter the required information in the Forwarded Call Information Display pane.
Step 16	Enter the required information in the Line Group Configuration pane.
Step 17	Enter the required information in the Set-only Provisioning Attributes Settings pane.
Step 18	Click Confirm.
Step 19	Repeat these steps for each of the remaining users.

Setting Up Primary Shared Lines

You can configure a scenario where multiple subscribers share the same line from their own phones, but the primary subscriber's line display takes precedence over the others:

- One primary user, and one or more secondary users, can all share the same line.
- The primary user's line display appears on the shared line on all the subscriber's phones.
- When a secondary subscriber makes calls using the shared line, the caller ID displays the primary subscriber's line display.
- Subscriber records for secondary subscribers display the shared line as well as their own individual lines.
- Subscriber records for the primary subscriber display all three shared phones and all three lines as well as the lines of the individual subscribers.

Example Procedure for Setting Up a Primary Shared Line

In this scenario, the Help Desk is the primary user that shares a line with secondary users 1 and 2.

User	Line Display	Destination Number
Primary User	Help Desk	123
User 1	User 1	321
User 2	User 2	345

Note

For all phones, ensure that you choose a phone model that has capacity for the shared line.

Step 1 Select **Provisioning Data** from the drop-down list in the top right corner of the Home page.

Step 2 Enter the subscriber information in the search field, and press Enter.

Your search result page appears.

Step 3 Click User 1.

The Subscriber Record Details page appear.

Step 4 In the left pane, click New Order.

The Order Entry wizard appears in the right pane.

- **Step 5** Select a Service Area and then click **Continue**.
- Step 6 Select Phone Service and click Continue.
- **Step 7** Click **Not Assigned** link to assign the line type.
- **Step 8** Specify the directory number as 321 (see Ordering Products and Services, page 10-4).
- **Step 9** Repeat Step 1 through Step 8 for User 2, but specify the directory number as 345.
- **Step 10** Repeat Step 1 through Step 8 for Primary User (Help Desk), but specify the destination number as 123.
- Step 11 Repeat Step 1.
- Step 12 Click Primary User.
- Step 13 Select a new Line on Shared Phone, making sure to do the following:
 - Select Chosen Line.
 - Specify 123 for the directory number.
 - Select the MAC address for User 1's phone.
- **Step 14** Repeat Step 12, making sure to do the following:
 - Select Chosen Line.
 - Specify 123 for the directory number.
 - Select the MAC address for User 2's phone.
- Step 15 Click Confirm.

Setting Up a Shared Phone

You can configure a scenario where two or more subscribers share the same phone, but have their own lines and line display information:

- Each subscriber's line display shows up on their line on the shared phone.
- Caller ID displays the appropriate subscriber's line display when they call other people.
- Each subscriber's subscriber record lists the shared phone, their own line, and the other subscriber's line.
- **Step 1** Select **Provisioning Data** from the drop-down list in the top right corner of the Home page.
- Step 2 Enter the subscriber information in the search field, and press Enter.

The Subscriber Record Details page appear.

Step 3 Select **Phone Service** (see Ordering Products and Services, page 10-4). Make note of the MAC address of the phone.



You must order a phone that supports two lines.

Step 4 Repeat Step 1 to Step 3 for the second subscriber.

Step 5 Select Line on Shared Phone. In the Target Phone field, select the MAC address of the first subscriber's phone.

In the subscriber record a Shared icon (Same) appears next to the shared phone.

Ordering Presence Services

To order a Presence Service:

- **Step 1** Select **Provisioning Data** from the drop-down list in the top right corner of the Home page.
- **Step 2** Enter the subscriber information in the search field, and press Enter.
- Step 3 In the Subscriber Record Details page, select the desired subscriber and Click New Order. The Order Entry wizard appears in the right pane.
- **Step 4** Select a Service Area and then click **Continue**.
- **Step 5** Select **User Services** and then click **Continue** to configure the User Services product.

Note

User Services product is available for Cisco Unified Communications Manager 9.x and higher.

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Note After you upgrade to Provisioning 9.0, User Services product will not be available for ordering. You should manually associate this product to the corresponding subscriber role. See Associating Products to a Subscriber Role Type, page 8-11

Table 10-4 describes the various fields for configuring the User Services.

Table 10-4User Services Entry Fields

Field	Description
Enable User for Unified CM IM and Presence	Used to enable or disable Unified CM IM and Presence.
Home Cluster	Indicates whether this cluster is the home cluster for the end user.
UC Service Profile	Used to associate a service profile to an end user.

- Step 6 Click Continue.
- **Step 7** In the Order confirmation page , click **Confirm**.

Managing Phones Without an Associated Subscriber

Provisioning enables you to manage phones that are not associated to a user in Cisco Unified Communications Manager. In Provisioning, these phones must be associated to a subscriber with the pseudo subscriber role. Managing phones without an associated subscriber consists of the following:

- Working with Existing Phones that Do Not Have an Associated Subscriber, page 10-23
- Ordering Phones Without an Associated Subscriber, page 10-23

Working with Existing Phones that Do Not Have an Associated Subscriber

This section describes how to create a list of existing phones that do not have an associated subscriber, and then how to associate those phones to a subscriber.

- **Step 1** Export all phones that do not have an associated user to a file (see Exporting Phones Without Associated Users, page 4-11).
- **Step 2** Modify the exported file so that each phone can be associated to the new Pseudo subscriber or desired existing subscriber.
- **Step 3** Using the modified file, create a batch project, then upload and run the file (see Provisioning Infrastructure Products, page 6-13).
- **Step 4** Upon completion of the batch project, you must run a Domain synchronization to assign a Service Area to the phone so that the phone will be displayed in the subscriber record.

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If a Service Area was listed in the file, the phone will be assigned to that Service Area (if an exact match is found) after a Domain synchronization is run. If Domain is configured to use the nonrestricted synchronization rule, the phone will be assigned to the first available Service Area.

Ordering Phones Without an Associated Subscriber

To order a phone without an associated subscriber, you must use a subscriber that is assigned the Pseudo subscriber role (see Using the Pseudo Subscriber Role, page 8-10). The Pseudo subscriber role allows you to provision phones without an associated user in the Call Processor.

This enables you to view or manage the phones that are not associated to a user in the Call Processor. Once the phone is added to a subscriber's record, you can execute a change owner operation to associate the phone to a regular user.



Changing a subscriber's role from Pseudo to a regular role or vice versa is allowed only if the subscriber does not have any services configured.

Provisioning a phone for a Pseudo subscriber is the same as that for a regular subscriber, except that a user is not created in the Call Processor.

You can order any products that include the following base products for a Pseudo subscriber:

- Phone (including all phone types)
- Line
- Voicemail
- Email
- Unified Messaging

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Replacing Existing Phones

Through the Replace feature, you can replace an existing phone for a subscriber, change the phone's MAC address, or update other phone settings.



The Replace feature does not allow you to change the line positions of assigned lines.

You can pick the same phone type, or choose from a list of other available phone types for the subscriber. The phone types that subscribers have access to are determined by their subscriber role, and the number of lines on the phone that you are replacing. Phones that do not support the required number of lines are not available during the change order process.

When a phone is replaced, all of its lines are transferred to the new phone. The Service Area assigned to the new phone is the same as for the original phone.

Users with the ordering authorization role can replace their own phones, or those of other subscribers.

When placing a replace phone order, remember the following:

- Any attributes that are not supported by Provisioning and exist on the phone before placing a replace phone order will either be reset to their default values or dropped from the phone. For a list of supported attributes in Provisioning, see Table 11-1, Provisioning Attribute Descriptions.
- The lines assigned to the original phone are associated to the newly added phone. But the newly selected associated phone button template must support the same number (or more) of assigned lines as the original phone.
- Only services that are configured for the Domain will be kept after a phone replace order is performed. If any other services existed on the phone, they will be dropped.
- Some attributes may not be supported by a particular phone type on a given protocol, so when placing phone orders, you should only set values for attributes that are supported by the chosen phone type and protocol. If you do not, failed orders can result.
- While replacing phone orders, you should provide a supported value for the DND Option attribute based on the phone type. Certain phone types like Nokia and Iphone accepts only one value whereas other phones supports up to 3-4 values for this attribute. If you providing wrong values for DND Option the order will not be replaced.

Tip

You can also use this process to change phone attributes (for example, provisioning attributes through the Advanced Order Configuration) if you select the same phone type and the same MAC address.

Step 1 Choose **Depoly > Subscriber Management > Search Subscribers**.

- **Step 2** In the Search page, enter the subscriber information to search on, then click **Search**.
- **Step 3** Click the desired subscriber.

The Subscriber Record Details for the selected subscriber appears.

Step 4 In the Products pane, hover over the phone that you want to replace.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

Step 5 Click **Replace**.

The Order Entry pane appears.

- **Step 6** From the Phone Type list, select the new phone. Depending on the type of phone, a picture and/or other phone options are displayed. Also, you change the phone's MAC address if desired.
- Step 7 Click Continue.

The Order Confirmation pane appears.

Step 8 Click Confirm.

The Confirmation of Order message appears.

Step 9 Click Ok.

The order appears in the View Orders pane.



In the Products column, an information icon ((\mathbf{i})) appears next to the product that you have changed. It indicates that the product has an order running against it. When the order has been processed, the information icon disappears.

Changing Phone Settings

You can submit an order to update a phone's settings by using the Change feature. Because the Change feature does not have the capability to replace the physical phone, you cannot replace the phone type or MAC address with this feature.

To change the phone type or MAC address, you must use the Replace feature (see Replacing Existing Phones, page 10-24).

When placing a change phone order, remember the following:

- When you change the phone button template, the newly selected associated phone button template must support the same number (or more) of assigned lines as the original phone.
- Some attributes may not be supported by a particular phone type on a given protocol, so when placing phone orders, you should only set values for attributes that are supported by the chosen phone type and protocol. If you do not, failed orders can result.

Users with the ordering authorization role can change the settings of their own phone, or those of other subscribers.

- **Step 1** Select **Provisioning Data** from the drop-down list in the top right corner of the Home page.
- **Step 2** Enter the subscriber information in the search field, and press Enter.

The Subscriber Record Details page appear.

Step 3 In the Products pane, hover over the phone that you want to change.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

Step 4 Click Change.

The Order Entry pane appears.

In this pane, you can change the basic settings for the phone. If you want to change any of the advance settings for the phone, click the plus sign (\blacksquare) next to Advanced Order Configuration.

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To unset the value of a provisioning attribute that has a numeric value in Cisco Unified Communications Manager, you must enter a zero for the value. If you clear the value, the provisioning attribute is not unset in Cisco Unified Communications Manager.

Step 5 After you have made all the desired changes, click **Continue**.

The next page contains the lines for the phone, and you can configure the line position for the phone (if the phone has multiple lines).

- Step 6 Click Continue.
- Step 7 Click Confirm.

The Confirmation of Order message appears.

Step 8 Click OK.

The order appears in the View Orders pane.



In the Products column, an information icon (\bigcirc) appears next to the product that you have changed. It indicates that the product has an order running against it. When the order has been processed, the information icon disappears.

Changing Owners of Phones

You can change the ownership of a phone from one subscriber to another subscriber in the same Domain.

When you change ownership of a phone, all products associated to the phone (Line, Email, Voicemail, and Unified Messaging) are also changed.

You can enter different values for the Email ID and Display Name, if applicable. If you do not change the email ID, email display name, voicemail alias, or voicemail display name, the services on the Unified

Message Processor do not change. Only the subscriber records in Provisioning for the old and new owners are changed.

However, if any of these settings are changed, the voicemail and email accounts on the Unified Message Processor are deactivated and then reactivated.

The Service Area assigned to the new owner is the same as the Service Area assigned to the original owner.



Users with the Ordering or Advanced Ordering role can make these changes, either to their own phones or to those of other subscribers.

Attributes that contain the user's login ID (first name and last name) are updated with the new user's information (depending on the Domain rules and the user's provisioning attributes).

The following attributes may contain the user's login ID:

- Phone Description
- Alerting Name (online)
- Phone Owner User ID
- ASCII Display (Internal Caller ID)

- ASCII Line Text Label
- Line Text Label ASCII Alerting Name

If the line is moved, the new user's and old user's telephone number and primary extension is updated accordingly.

If a p	whone is shared, you cannot change owners of the phone. The Change Owner button is not displayed.	
Cho	ose Deploy > Subscriber Management > Search Subscribers .	
The	Search page for subscribers appears.	
Ente	r the search information. Click Search.	
Click the desired subscriber.		
The Subscriber Record Details for the selected subscriber appears.		
In th	e Products pane, hover over the phone that you want to change.	
The prod	Actions list with the option buttons appears. It enables you to perform the actions for the selected uct.	
Clic	Change Owner.	
The	Review Products pane appears, displaying a list of the associated products.	
Click Continue .		
The Choose a New Owner pane appears.		
Note	If there are open orders against any of the associated products, a warning message appears, and you cannot continue.	
In th	e Choose New Owner field, click the Chooser icon ().	
The	Choose a User dialog box appears.	
ρ		
Tip	If there are many users, use the search fields to locate the desired user.	
Sele	ct a user.	
The	user ID of the new user enneers in the Choose New Owner field	
If the phone has voicemail or email associated with it, you can change the following:		
If th	e phone has voicemail or email associated with it, you can change the following:	
If th	e phone has voicemail or email associated with it, you can change the following: Voicemail alias	
If the	e phone has voicemail or email associated with it, you can change the following: Voicemail alias Voicemail display name	
If the	e phone has voicemail or email associated with it, you can change the following: Voicemail alias Voicemail display name Email ID	
If th	e phone has voicemail or email associated with it, you can change the following: Voicemail alias Voicemail display name Email ID Email display name	
If th	e phone has voicemail or email associated with it, you can change the following: Voicemail alias Voicemail display name Email ID Email display name c Continue .	
If the	e phone has voicemail or email associated with it, you can change the following: Voicemail alias Voicemail display name Email ID Email display name c Continue . Change Owner Confirmation pane appears.	
If the Click The	 e phone has voicemail or email associated with it, you can change the following: Voicemail alias Voicemail display name Email ID Email display name c Continue. Change Owner Confirmation pane appears. c Submit. 	

Step 12 Click OK.

The order appears in the View Orders pane.

Changing Line Information

You can submit an order to change line details. The following line details can be changed:

- Directory number
- Line position
- Provisioning attributes

You can change details on Line, Line on Shared Phone, and Extension Mobility Line products.

There are two sets of Provisioning Attributes on line products. One set is on the directory number level and the other is on the line level. When multiple lines share the same directory number, provisioning attributes set on the directory number level are common and shared among the line. Changing the provisioning attributes on one line impacts all of the lines.

Provisioning attributes set on the line level are not shared. Changing the provisioning attributes on one line does not impact the other lines.

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An asterisk (*) in front of an attribute display name in the Provisioning Attribute Management wizard is a directory number-level provisioning attribute that can be shared among lines.

When a new directory number is provided and the combination of the new number and the original route partition matches an existing directory number object, all the directory number-level provisioning attributes show values from the existing directory number object on the Provisioning Attribute Management wizard.

If you change the route partition, the wizard does not get refreshed automatically to show the new matched directory number values, and what is shown on the wizard will be provisioned on the device.

Step 1 Choose Deploy > Subscriber Management > Search Subscribers.

The Search page for subscribers appears.

- **Step 2** Enter the search information. Click **Search**.
- **Step 3** Click the desired subscriber.

The Subscriber Record Details for the selected subscriber appears.

Step 4 In the Products pane, hover over the line that you want to change.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

Step 5 Click Change.

The Change Line pane appears.

- **Step 6** You can change the following:
 - Directory number—To change the directory number, enter a new one. The number must be known before starting the change process.

- Line position—Applicable only to lines that are provisioned on Cisco Unified Communications Managers.
- Provisioning attributes—Available only to users who are assigned the Advanced Ordering authorization role. Click the plus sign (+) next to the Advanced Order Configuration option to access the provisioning attribute settings.
- Step 7 Click Continue.
- Step 8 Click Confirm.
- Step 9 Click OK.

The order appears in the View Orders pane.

Changing Extension Mobility Access Information

You can submit an order to change Extension Mobility Access details. The following information can be changed:

- Name.
- EM Phone Type
- Phone button template
- Provisioning attributes.
- Line position (if a line has been added).
- Step 1 Choose Deploy > Subscriber Management > Search Subscribers.

The Search page for subscribers appears.

- **Step 2** Enter the search information. Click **Search**.
- **Step 3** Click the desired subscriber.

The Subscriber Record Details for the selected subscriber appears.

Step 4 In the Products pane, hover over click **Extension Mobility Access**.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

Step 5 Click Change.

The Order Entry pane appears.

- **Step 6** You can change the following:
 - Name.
 - EM Phone Type
 - Phone button template—Only the phone button templates that are applicable for the selected EM Phone Type will be listed.
 - Provisioning attributes—Available only to users who are assigned the Advanced Ordering authorization role. Click the plus sign () next to the Advanced Order Configuration option to access the provisioning attribute settings.
 - Line position (if a line has been added).

Step 7 Click Continue.
Step 8 Click Confirm.
Step 9 Click OK. The order appears in the View Orders pane.

For the Name attribute added in the service area level, the USERID, FIRSTNAME, LASTNAME, DOMAIN, SERVICEAREA keywords are replaced with the corresponding dynamic values while ordering EM Access.

Changing Remote Destination Profile Information

You can submit an order to change Remote Destination Profile details. The following information can be changed:

- Name.
- Device Description.
- Provisioning attributes.
- **Step 1** Choose **Deploy > Subscriber Management > Search Subscribers**.

The Search page for subscribers appears.

- **Step 2** Enter the search information and click **Search**.
- **Step 3** Click the desired subscriber.

The Subscriber Record Details for the selected subscriber appears.

Step 4 In the Products pane, hover over Remote Destination Profile.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

Step 5 Click Change.

The Order Entry pane appears.

- **Step 6** You can change the following:
 - Name.
 - Device Description.
 - Provisioning attributes—Available only to users who are assigned the Advanced Ordering authorization role. Click the plus sign (*) next to the Advanced Order Configuration option to access the provisioning attribute settings.
- Step 7 Click Continue.
- Step 8 Click Confirm.
- Step 9 Click OK.

The order appears in the View Orders pane.

Changing Remote Destination Profile Line Information

You can submit an order to change Remote Destination Profile Line details. The following information can be changed:

- Name.
- Device Description.
- Provisioning attributes.
- Step 1 Choose Deploy > Subscriber Management > Search Subscribers.

The Search page for subscribers appears.

- **Step 2** Enter the search information. Click **Search**.
- Step 3 Click the desired subscriber.

The Subscriber Record Details for the selected subscriber appears.

Step 4 In the Products pane, hover over Remote Destination Profile Line.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

Step 5 Click Change.

The Order Entry pane appears.

- **Step 6** You can change the following:
 - Name.
 - Device Description.
 - Provisioning attributes—Available only to users who are assigned the Advanced Ordering authorization role. Click the plus sign (+) next to the Advanced Order Configuration option to access the provisioning attribute settings.
- Step 7 Click Continue.
- Step 8 Click Confirm.
- Step 9 Click OK.

The order appears in the View Orders pane.

Changing Voicemail Details

You can submit an order to change the voicemail details for Unity and Unity Connection products. A Change button is shown under the Voicemail option. You cannot change a voicemail to a different Service Area.

Step 1 Choose Deploy > Subscriber Management > Search Subscribers.

The Search page for subscribers appears.

- **Step 2** Enter the search information and click **Search**.
- **Step 3** Click the desired subscriber.

The Subscriber Record Details for the selected subscriber appears.

Step 4 In the Products pane, hover over voicemail that you want to change.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

- Step 5 Click Change.
- **Step 6** In the Basic Voicemail Information pane, modify the voicemail alias and voicemail display name, if necessary.

Note You cannot change the voicemail alias for all Provisioning versions. For Cisco Unity Connection, you can change the voicemail alias for all versions. For Cisco Unity versions earlier than 8.0, you cannot change the voicemail alias or line selected for changing voicemail; however, you can change the Display Name.

- Step 7 In the Advanced Order Configuration Subscriber pane, modify the fields, if necessary.
- Step 8 Click Continue.
- Step 9 Click Confirm.
- Step 10 Click OK.

The order appears in the View Orders pane.

Unlocking Voicemail Accounts

If a voicemail account becomes locked (due to either user or system error), you can unlock the account through Provisioning.

You can unlock the following accounts:

- Voicemail account—For Cisco Unity, Cisco Unity Connection, and Cisco Unity Express devices.
- Web access account—For Cisco Unity Connection devices.

Before You Begin

To unlock voicemail accounts, you must configure the Cisco Unity or Cisco Unity Connection devices. See Configuring Cisco Unity So That Provisioning Can Unlock Voicemail Accounts, page 10-33 or Configuring Cisco Unity Connection So That Provisioning Can Unlock Voicemail Accounts, page 10-33.

Step 1 Choose Deploy > Subscriber Management > Search Subscribers.

The Search page for subscribers appears.

- **Step 2** Enter the search information. Click **Search**.
- **Step 3** Click the desired subscriber.

The Subscriber Record Details for the selected subscriber appears.

Step 4 In the Products pane, hover over voicemail that you want to unlock.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

Click Unlock.		
Note	For Cisco Unity Connection, you may have a choice of either the voicemail or web access account. Select the desired account to unlock.	
Click	Confirm.	
Click	OK.	
The order appears in the View Orders pane.		
Cartin	uning Ciaco Units So That Dravisianing Can Unlask Vaisamail Assault	
Config	uring Cisco Unity So That Provisioning Can Unlock Voicemail Accounts	
Log in	1 to the Cisco Unity Administrator page.	

- **Step 2** In the left pane under Subscribers, click Account Policy.
- Step 3 In the left pane, click Phone Lockout Policies.
- **Step 4** For the lockout duration, select **Forever**.

Configuring Cisco Unity Connection So That Provisioning Can Unlock Voicemail Accounts

Step 1Log in to the Cisco Unity Connection Administration	page.
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- Step 2 In the left pane under System Settings, click Authentication Rules.
- Step 3 Select the Voice Mail rule or the Web Application rule (both rules must be set).
- Step 4 For the lockout duration, select Administrator Must Unlock.

Searching for an Order

You can search for orders using any of the following information:

- Order information:
 - Order number
 - Author—Person who placed the order
 - Order status
 - Extended status—The state that the order is in (for example, being provisioned, waiting for approval, or waiting to ship)
- Subscriber information:
 - Login
 - First or last name
 - Phone number
 - Email

 Department

 Domain
 Order date
 Requested delivery date

 Step 1 Choose Deploy > Order Management > Search Orders. The Search page for orders appears.
 Step 2 Enter the search information.
 Step 3 Click Search. The order details are displayed.

Ordering Bulk Services

If you are deploying a large number of services, you may want to combine these activities into a single activity. The batch provisioning functionality of Provisioning enables you to create a single batch that contains multiple types of orders. You can also combine multiple types of services into a single batch operation.

You can access the Batch Provisioning page through the Subscriber Dashboard (**Deploy > Batch Provisioning**).

For detailed information on batch provisioning, see Provisioning Infrastructure Products, page 6-13.

Processing Orders

After you have submitted orders for subscribers, they are approved and then shipped. Depending on how your Provisioning system has been configured, these steps may be automatic or may require processing by users.

There are four possible activities that can be assigned to users during the order processing stage. The activities are assigned based on the rules set for the Domain. For more information on rules, see Business Rules, page 11-2.

The four activities are described in the following:

Note

A Provisioning administrator can configure how these activities are assigned.

- Approve orders—Approves orders before provisioning can occur, and can also reject orders. This user must be assigned the Approval authorization role. This is controlled by the following rules:
 - IsAuthorizationRequiredForAddOrder
 - IsAuthorizationRequiredForChangeOrder
 - IsAuthorizationRequiredForCancelOrder
- Assignment—Assigns MAC address to a phone. This user must be assigned the Assignment role. This is controlled by the rule PhoneAssignmentDoneBy.

- Shipping—Ships the order. This user must be assigned the Shipping authorization role. This is controlled by the rule PhoneShippingDoneBy.
- Receiving—Done by the user who has the Receiver user role. Indicates that an ordered phone has been received. This is controlled by the rule PhoneReceiptDoneBy.

Approving Orders

If your administrator has enabled approval, orders must be approved. To approve orders, you must be assigned the Approval authorization role (see , page 8-5).

After an order is approved or rejected, an email is sent to the subscriber for whom the order was placed. The following business rules must be enabled for the email to be sent (see Business Rules, page 11-2):

- EmailSender
- MailHost
- OrderProvisionedEmailTemplate
- OrderRejectedEmailTemplate

The email is sent to the email account configured for the subscriber (see You can use the User Management page to change the following information:, page 8-16).

Note If an order is rejected, the order status is set to Cancel in the subscriber record, and no provisioning is performed. If the order encounters a problem and the user chooses to abort the remainder of the order in the error handling workflow step, then the order status is set to Hold.

Step 1 Choose **Deploy > Order Management > My Activities**.

The My Activities page appears.

Step 2 Click the order that you want to process.

The Viewing Activity page appears.

Step 3 Click Accept.

The Viewing Activity page appears with the Add a Note field added.



You can also decline the order or delegate it to another user or group. If you delegate the activity, new user or group is assigned to the activity.

Step 4 Enter the **MAC** Address for the phone.

Step 5 Click Step Complete.

The selected order is approved and My Activities page appears.

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Shipping Phones

Depending on how your Provisioning system is configured, this step may not be required. If your administrator has enabled shipping, you must be assigned the Shipping authorization role to perform this procedure (see Table 8-1). Shipping phones consists of two parts: assigning MAC addresses and shipping.

Step 1	Choose Deploy > Order Management > My Activities .			
	The M	Iy Activities page appears.		
Step 2	Click the order that you want to ship.			
	The V	The Viewing Activity screen appears.		
Step 3	Click	Click Accept.		
	The V	iewing Activity Phone Assignment page appears with the MAC Address field active.		
Step 4	In the MAC Address field, type a hexadecimal value. Valid values are alphanumeric characters (A-Z, a-z, 0-9). The value must be 12 characters in length.			
	Note	The MAC address is available on a sticker on the phone set, and on the phone setting display on the handset.		
Step 5	After	you have added the required information, click Step Complete.		
	The M	Iy Activities page appears.		
Step 6	Click the Refresh icon.			
	The of	rder appears in the My Activities page.		
Step 7	Click the same order.			
	The V	iewing Activities Form page appears.		
Step 8	Click	Accept.		
	The V	iewing Activity Form page changes.		
Step 9	Click Step Complete . If you did not create the order, the order no longer appears on the My Activities page.			

Receiving Phones

If your administrator has enabled receiving, you must be assigned the Receiving authorization role to perform this procedure (see Table 8-1).

Step 1	Choose Deploy > Order Management > My Activities .
	The My Activities page appears.
Step 2	Click the order that you require.
	The Viewing Activity Form page appears.
Step 3	Click Accept.

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The Viewing Activity page appears.

Step 4 Click Step Complete.

The My Activities page appears with the order no longer in the list.

Canceling Products

To cancel products, you must submit a cancel order. When you cancel a product, all products associated with it are also canceled.

Note

For the Single Number Reach Service product, canceling the Enable Mobility product does not cancel the Remote Destination Profile or Remote Destination Profile Line products. Also, canceling the Remote Destination Profile product does not cancel the Enable Mobility product.

Table 10-5 lists the individual products that are associated with an orderable product.

Product	Associated Products
Voicemail	Email, Unified Messaging.
Email	Voicemail, Unified Messaging.
	Note For Cisco Unity Connection, Voicemail remains even when Email is canceled.
Line	Email, Voicemail, Unified Messaging.
Phone	Line, Email, Voicemail, Unified Messaging.
	Note Cancelling a phone removes the associated directory numbers from the Cisco Unified Communications Manager.
Remote	Remote Destination Profile Line.
Destination Profile	Note Cancelling a Remote Destination Profile Line removes the associated directory numbers from the Cisco Unified Communications Manager.
Unified Messaging	None.

Table 10-5 Orderable Products

Step 1 In the **Products** pane of the subscriber record (see Accessing a Subscriber Record, page 10-2), hover over the product that you want to cancel.

The Actions list with the option buttons appears. It enables you to perform the actions for the selected product.

Step 2 Click Cancel.

The Order Cancel Form pane appears.

Step 3 Click Submit.

The Confirmation of Order message appears.

Step 4 Click OK.

 Step 5
 Click Done.

 The canceled order appears in the View Orders pane with Completed status.

 Note
 In the Products section, an information icon (()) appears next to the product to indicate that the product has an order running against it. When the order has finished processing, the information

After the order has been processed, the canceled products are no longer displayed in the Subscriber Record Details pane.

Work Order States

This section explains the states an order goes through after it is entered.

Following are the work order states:

icon disappears.

- Initial
- Released
- Completed
- Hold

When an order is placed, a work order is created and is in the Initial state. When execution of the work flow begins, the order transitions to the Released state. After completion of the work flow, the order transitions to the Complete state if all steps were successful, or to the Hold state if any of the steps failed. For the order to change to the Hold state, you may need to acknowledge that the order failed, or the change may occur automatically, depending on the origin of the work order.

Work orders also have an extended status field. If the order is in execution, the extended status is Being Provisioned. If the order failed, the extended status is Recoverable Error or Unrecoverable Error. If the order is waiting for a user action, the extended status is set to a specific Wait status. Wait states are usually for assignment, often for shipping or receiving. Changes in the extended status can occur without the work order changing state.

When a work order fails, the transition behavior from Released to Hold depends on which of the following was used to submit the work order:

- Provisioning NBIImmediate transitions from Released to Hold.
- Provisioning user interface remains in the Released state, waiting for you to take action on the order.
- Batch provisioning depends on the extended status. If the failure is a recoverable error, the order remains in the Released state, waiting for you to take action on it. If the failure is an unrecoverable error, the order transitions to Hold.

Email Notifications

Email Notifications improve manageability of notifications by allowing you to view critical events such as:

• Order approvals

- Order failures
- Synchronization failures

Notifications can be set at two levels:

- Domain Settings—For workflow events such as order approvals, assignment, shipping, and receiving in the Domain. See Configuring a Domain Notification Template, page 10-39 and Configuring Domain Notification, page 10-40.
- System Settings—For system events such as order failures and synchronization failures. See Configuring System Notifications, page 10-41.

You can test System and Domain notification configurations to ensure that the SMTP host and other settings are valid. See Testing Notification Settings, page 10-42.

Note

Provisioning Notification options are available only in the standalone Prime Collaboration Provisioning application. These options are not available in the converged application.

Configuring a Domain Notification Template

Notification settings for Domain-specific events such as Order Approvals, Handle Assignment, Handle Shipping, and Handle Receiving can be set at the Domain level. A Domain notification template can be used to set up values that will be applied to any new Domains created in the system. Additionally, you can also choose to apply the values from the template to all the existing Domains in the system.

- **Step 1** Choose Administration > Provisioning Notification Management > Domain Settings.
- **Step 2** In the Notification Configuration Domain Settings page, modify the Domain template, if required.

In the Email Settings pane, SMTP server details and the From Address values are inherited from the system settings and are displayed in read-only format. These settings cannot be changed in the Domain template; however, for specific Domains, these settings can be overridden.

- **Step 3** Set the time slot for the Aggregation and Escalation window to appear.
- **Step 4** Click the **Test Settings** button to ensure that SMTP host and other details are set up correctly. To configure test notification settings, see Testing Notification Settings, page 10-42.
- **Step 5** In the Notification Events pane, select events for which you have to send notifications.

Note

The Workflow Pending Activity field contains events such as Order Approvals, Handle Assignment, Handle Shipping, Handle Receiving, and so on.

- **Step 6** In the Approval Notification Group, Assignment Notification Group, Shipping Notification Group, and Receiving Notification Group panes, do the following:
 - External email addresses—Enter the email addresses to which to send notifications.
 - Aggregation window—Choose a setting to determine whether notifications of Domain events are aggregated or sent out as soon as an event occurs. The value <Not Set> results in no aggregation, and notifications are sent out immediately upon occurrence of an event.

Any other value makes the system wait after an event to occur, for the time set in the aggregation window. During this time, if other related events occur, an aggregated notification with details of all such events is sent in a single email.

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- Events are based on workflow event type. Approval notifications and assignment notifications are aggregated in separate emails.
- Escalation Window—Choose a setting to determine whether inaction on workflow events results in an escalation email to the system administrators. The value <Not set> means no escalations emails will be sent out.

Any other value triggers the system to send out an email to the system administrators after the time specified if no action was taken for the triggering event (for example, order approvals).

- Step 7 Do either of the following:
 - Click **Apply to domain template only** to save the settings as defaults for the Domains that will be created in the future.
 - Click **Apply to all domains** to apply the notification settings to the existing Domains.

Configuring Domain Notification

Step 1

Notification settings for Domain-specific events such as Order Approvals, Handle Assignment, Handle Shipping, and Handle Receiving can be set at the Domain level. The settings on this page are inherited from the Domain configuration template if the Domain was created after the template was set up, or if the **Apply to all domains** option was selected when the template was set up.

- Choose Administration > Provisioning Notification Management > Domain Settings. Step 2 In the Notification Configuration - Domain Settings page, select the desired Domain from the drop-down list. The page refreshes and displays the notification settings specific to the selected Domain.
- Step 3 In the Email Settings pane, enter the following SMTP server details:
 - Mail Server Name—SMTP server hostname or IP address (for example mailer.company.com).
 - Mail Server Port—SMTP Server port. Optional setting if a nondefault port is used.
 - Mail Server User Name—Username of the SMTP Server account. Specify only if an authenticated ٠ SMTP server is used.
 - Mail Server User Password—Password of the SMTP server account. Specify only if an authenticated SMTP server is used.
 - From address—Email address to use as the "from" address in Provisioning notifications (for example, ProvisioningManagerNotification@company.com).
- Step 4 Click the **Test Settings** button to ensure that SMTP host and other details are set up correctly. To configure test notification settings, see Testing Notification Settings, page 10-42.
- Step 5 In the Notification Events pane, select events for which to send notifications.

The Workflow Pending Activity field contains events such as Order Approvals, Handle Assignment, Handle Shipping, Handle Receiving, and so on.

Step 6 In the Approval Notification Group pane, for the external email addresses, enter email addresses to which to send notifications.

The approval notification group is a group of users with permission to perform order approvals in the Domain. Users configured in the system with this role for the Domain are displayed as System Users. These users are always notified of approval events.

You can configure the aggregation and escalation settings for notifications that are sent to the approval notification group. See Step 6 in Configuring a Domain Notification Template, page 10-39.

Step 7 In the Assignment Notification Group pane, for the external email addresses, enter email addresses to which to send notifications.

The assignment notification group is a group of users with permission to assign MAC addresses for phone orders in the Domain. Users configured in the system with this role for the Domain are displayed as System Users. These users are always notified of approval events.

You can configure the aggregation and escalation settings for notifications that are sent to the assignment notification group. See Step 6 in Configuring a Domain Notification Template, page 10-39.

Step 8 In the Shipping Notification Group pane, for the external email addresses, enter email addresses to which to send notifications.

The shipping notification group is a group of users with permission to perform shipping activities in the Domain. Users configured in the system with this role for the Domain are displayed as System Users. These users are always notified of shipping events.

You can configure the aggregation and escalation settings for notifications that are sent to the shipping notification group. See Step 6 in Configuring a Domain Notification Template, page 10-39.

Step 9 In the Receiving Notification Group, for the external email addresses, enter email addresses to which to send notifications.

The receiving notification group is a group of users with permission to perform receiving activities in the Domain. Users configured in the system with this role for the Domain are displayed as System Users. These users are always notified of receiving events.

You can configure the aggregation and escalation settings for notifications that are sent to the receiving notification group. See Step 6 in Configuring a Domain Notification Template, page 10-39.

Step 10 Click **Save** to apply the settings.

Configuring System Notifications

Notification settings can be set at system level to manage notifications corresponding to system events such as synchronization failures and order failures.

- Step 1 Choose Administration > Provisioning Notification Management > System Settings.
- **Step 2** In the Email Settings pane, enter the following SMTP server details:
 - Mail Server Name—SMTP server name or IP address (for example, mailer.company.com).
 - Mail Server Port—SMTP Server port. This field is optional if a default port is used.
 - Mail Server User Name—Username of the SMTP Server account. Specify only if an authenticated SMTP server is used.
 - Mail Server User Password—Password of the SMTP server account. Specify only if an authenticated SMTP server is used.
 - Confirm Mail Server User Password—Reenter the SMTP server account password to confirm.

- From address—Email address from which Provisioning sends notifications (for example, CUPMNotification@company.com).
- **Step 3** Click the **Test Settings** button to ensure that SMTP host and other details are set up correctly. To configure the test notifications settings, see Testing Notification Settings, page 10-42.
- **Step 4** In the Email Content URL Parameters pane, enter the following details, which will be used to construct a URL that will appear in the email content:
 - Protocol—Protocol to access Provisioning (HTTP or HTTPS).
 - Host—Hostname or IP address to access Provisioning.
 - Port—Port used to access Provisioning (required only if a port other than 80 is used).



Note The fields in the Email Content URL Parameters pane are automatically populated with the relevant details.

Step 5 In the Notification Events pane, select events for which you have to send notifications.

Step 6 In the Administration Notification Group pane, set the following details:

- External Email Addresses—Email IDs of users or mailing lists to which to send email notification of the chosen system events. Notifications are sent to administrators if their email addresses are specified in the system. This list is displayed as read-only text in the System Users field.
- Aggregation window—Choose a setting to determine whether notifications of system events are aggregated or sent out as soon as an event occurs. The value <Not Set> results in no aggregation, and notifications are sent out immediately upon occurrence of an event.

Any other value makes the system wait after an event occurs, for the time set for aggregation window. During this time, should other related events occur, an aggregated notification with details of all such events is sent in a single email.

Note

Events are aggregated based on type. Synchronization failures and order failures are aggregated in separate emails.

Step 7 Click Save.

Testing Notification Settings

You can test the notification configurations for the system and Domains to ensure that the SMTP host and other details are set up correctly.

To test your notification settings:

- **Step 1** Choose either of the following:
 - Administration > Provisioning Notification Management > System Settings
 - Administration > Provisioning Notification Management > Domain Settings

The Notification Configuration - System Settings page or Notification Configuration - Domain Settings page appears.

Step 2 Click the Test Settings button.

The Test Email Settings page appears.

- **Step 3** Enter an email address in the Send Test Email To field.
- **Step 4** Click **Send test email** to send an email using the current settings.

A success message is displayed at the top of the page.



If the test fails, an error message is displayed. Make the necessary changes in the settings and run the test again. However, a successful test will not automatically save the settings. Be sure to close the Test Email Settings page and save your settings.