Cisco Intelligent Automation for Cloud Starter Edition User Guide

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Cisco Intelligent Automation for Cloud Starter Edition User Guide

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Preface

The *Cisco Intelligent Automation for Cloud 3.0 Starter Edition User Guide* provides instructions for setting up, managing, and ordering from the Cloud Portal.

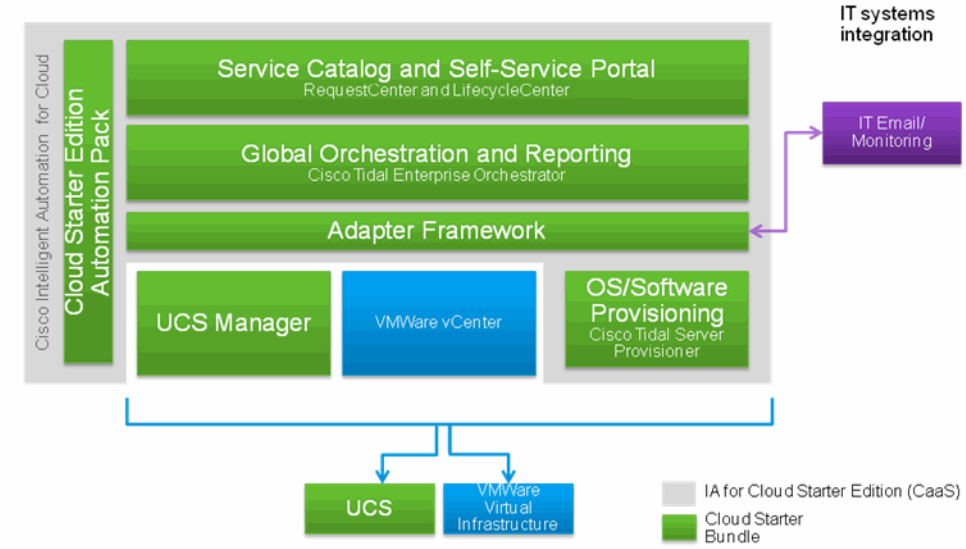
About Cisco Intelligent Automation for Cloud Starter Edition

The Cisco Intelligent Automation for Cloud 3.0 Starter Edition is a simple, compute-only, single point-of-delivery (POD) cloud solution that provides quick and easy deployment. The Cloud Starter Edition automation pack that ships with the solution contains content that is designed to work out-of-the-box so you can get it up and running quickly.

The Cloud Starter Edition integrates with the following products to provide cloud compute and cloud orchestration:

- Cisco Cloud Portal—Provides the self-service portal from which employees of the organization can order services
- Tidal Enterprise Orchestrator—Provides the orchestration and reporting for services ordered through Cloud Portal
- Cisco Server Provisioner—Provides bare metal provisioning of operating systems on physical or virtual servers
- Cisco UCS Manager—Provides the provisioning of physical servers

Figure i-1 Starter Edition—System Architecture



Organization

This guide includes the following sections:

Chapter 1	Introduction	Introduces Starter Edition, describes user roles, and provides information about navigating the Cloud Portal.
Chapter 2	Managing the Cloud System	Guides Cloud Provider Technical Administrators and Organization Technical Administrators through maintenance of servers and networks.
Chapter 3	Managing Organizations and Users	Guides Cloud Provider Technical Administrators and Organization Technical Administrators through managing organizations and end-users.
Chapter 4	Ordering Cloud Services	Provides steps for all users for ordering physical and virtual servers.
Chapter 5	Managing Services	Guides Cloud Provider Technical Administrators through tracking service requisitions, setting standards for service items, managing server leases, and handling Cloud infrastructure errors.

Conventions

This guide uses the following conventions:

Convention	Indication
bold font	Commands and keywords and user-entered text appear in **bold** font.
italic font	Document titles, new or emphasized terms, and arguments for which you supply values are in *italic* font.
[ ]	Elements in square brackets are optional.
{x | y | z }	Required alternative keywords are grouped in braces and separated by vertical bars.
[x | y | z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
`courier` font	Terminal sessions and information the system displays appear in `courier` font.
< >	Nonprinting characters such as passwords are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

Note Means *reader take note*.

Tip Means *the following information will help you solve a problem*.

Caution Means *reader be careful*. In this situation, you might perform an action that could result in equipment damage or loss of data.

Timesaver Means *the described action saves time*. You can save time by performing the action described in the paragraph.

Warning **Means *reader be warned*. In this situation, you might perform an action that could result in bodily injury.**

Product Documentation

Documentation Formats

Documentation is provided in the following electronic formats:

- Adobe® Acrobat® PDF files
- Online help

You must have Adobe® Reader® installed to read the PDF files. Adobe Reader installation programs for common operating systems are available for free download from the Adobe Web site at www.adobe.com.

Guides and Release Notes

You can download the TEO product documentation from Cisco.com. Release Notes can be found on Cisco.com and the product CD.

Online Help

Online help is available and can be accessed using the following methods:

- Click the **Help** button on any dialog in the application to open the help topic in a pane to the right of the dialog.
- In the Tidal Enterprise Orchestrator console:
  - Click the **Help Pane**  tool on the toolbar to open the help topic in a pane to the right of the console results pane.
  - Click **Help** on the menu bar.

Product Naming Conventions

The following product naming conventions are used throughout this document and in the Starter Edition user interface:

- Tidal Enterprise Orchestrator and TEO are synonymous with Cisco Process Orchestrator in the Starter Edition user interface
- Cisco Service Portal is synonymous with Cisco Cloud Portal

Open Source License Acknowledgements

Licenses and notices for open source software used in Cisco Tidal Enterprise Orchestrator can be found in the Open Source License Acknowledgements found on Cisco.com. If you have any questions about the open source contained in this product, please email external-opensource-requests@cisco.com.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

CHAPTER 1

Introduction

Cisco Intelligent Automation for Cloud Starter Edition is a self-service provisioning and orchestration software solution for cloud computing and data center automation. Starter Edition users access services and tasks using Cisco Cloud Portal, a browser-based interface that provides links to services and status, such as ordering servers, viewing requisitions, monitoring system resources.

This section introduces you to the Cloud Portal, organizations, service teams, and user roles. It includes the following sections:

Cloud Portal is a browser-based set of applications that organizations and service teams log into and orders and manages services.

Understanding Organizations

In the Cloud Portal environment, organizations are users who are grouped according to function or business. There are two kinds of organizations: business units and service teams.

Business Units

Business units are groups of end-users who order services. The typical business unit represents a department or group with a specific purpose—for example, marketing—that has an interest in maintaining separate servers from other groups.

This type of organization represents the majority of organizations in the cloud system.

Business units include the following types of users:

- Organization Technical Administrator (Organization Technical Administrator, page 1-13)
- Virtual Server Owner (Virtual Server Owner, page 1-13)
- Virtual and Physical Server Owner (Virtual and Physical Server Owner, page 1-13)

Service Teams

Service teams are units whose members administer and maintain the Starter Edition Solution, which includes Cloud Portal. Service Teams typically include employees of the service provider who are Cloud Provider Technical Administrators and Site Administrators. Cisco technicians might also be part of service teams.

The Cloud Portal Technical Administrator is a member of the CPTA Organization Unit service team. For information on the Cloud Provider Technical Administrator role, see Cloud Provider Technical Administrator, page 1-12)

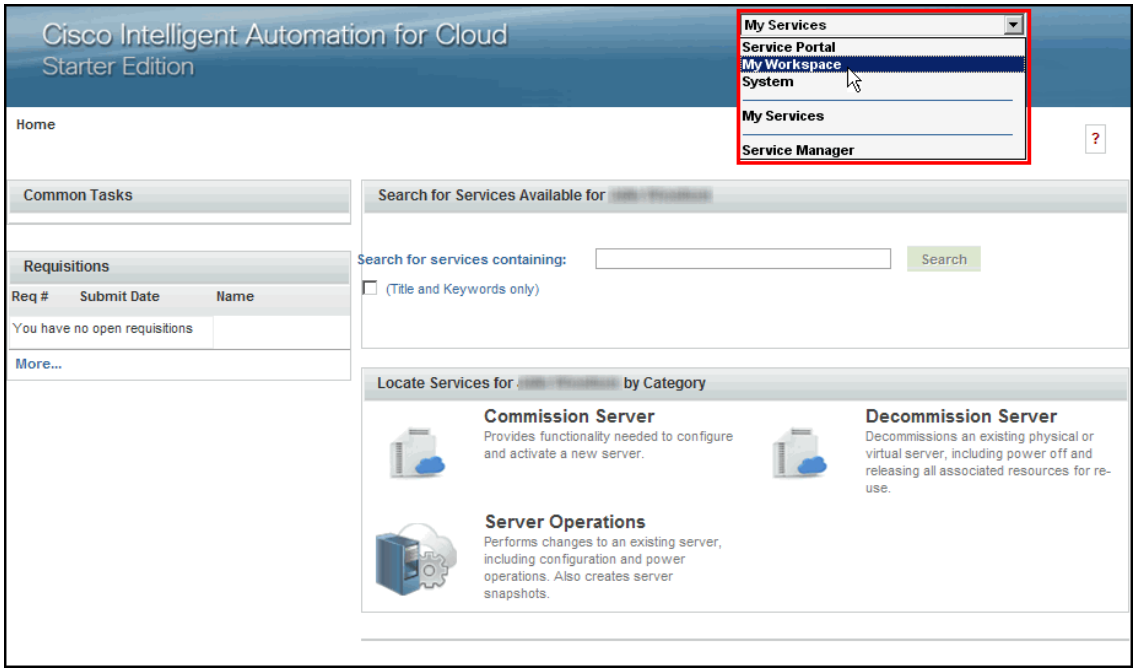
Navigating Cloud Portal

Note Your level of access to services and modules depends on your user role in Cloud Portal.

Accessing Modules

The module drop-down list is located in the upper-right corner of the window. You use it to open any portal to which you have access.

Figure 1-1 Module Drop-down List



Modules are role-based containers of services grouped by purpose. Starter Edition features seven modules:

- My Workspace
- Organization Designer
- Service Manager
- Service Item Manager
- Administration
- Catalog Deployer

My Workspace

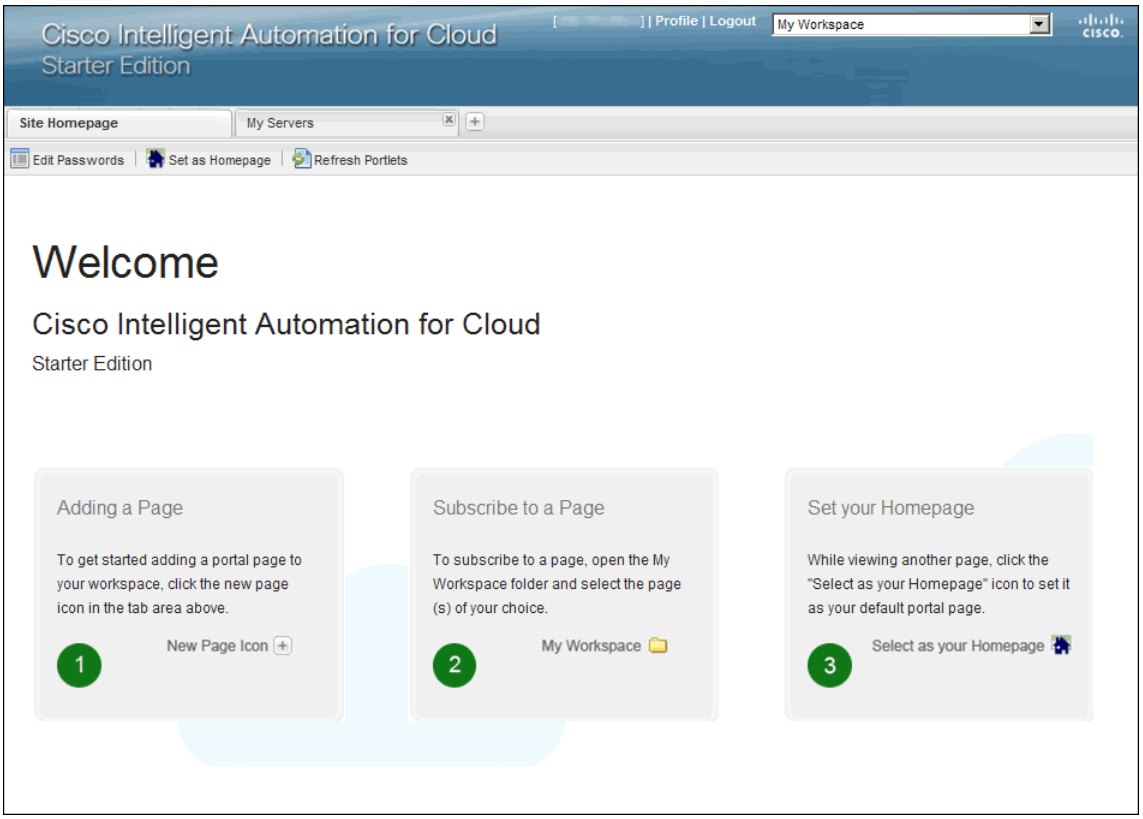
My Workspace is your Cloud Portal home page. It provides easy access to the portal pages, where you can perform the most common tasks, including ordering servers and configuring networks.

Note You can change your page to another module. For instructions, see Changing Your Site Home Page, page 1-6.

From My Workspace, you can do any of the following:

- Access portal pages, where you will perform most of your tasks
- Edit your profile preferences
- Subscribe to pages

Figure 1-2 My Workspace Home Page



Adding Portal Pages to My Workspace

To perform most of the tasks in this guide, you must have access portal pages in My Workspace in the form of tabs. If you do not already have access the portlets, use to following steps to add them.

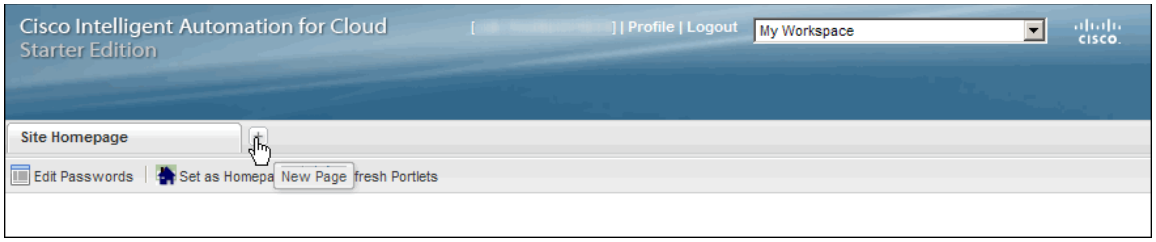
For more information on portals, see Portals and Portlets, page 1-9.

Step 1 Open Cloud Portal in your browser and log in to the application.

Step 2 Choose the **My Workspace** from the module drop-down list.

Step 3 On the page, click the + to open the Open Page dialog box.

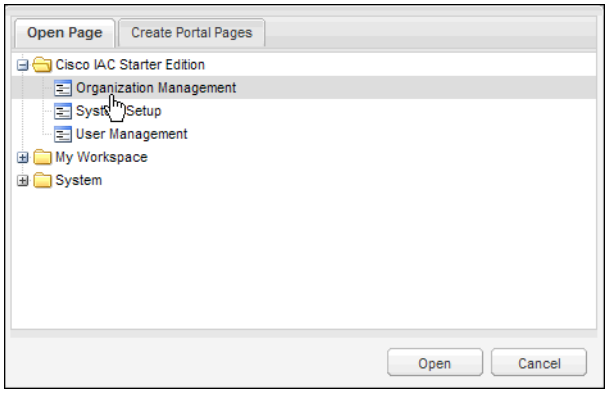
Figure 1-3 Adding Portals to My Workspace



Step 4 Expand the **Cisco IAC Starter Edition** folder.

Step 5 Click to select a portal, and then click **Open** to create a tab for the portal.

Figure 1-4 Open Page



Note The portals shown in Figure 1-4 are not available to all users.

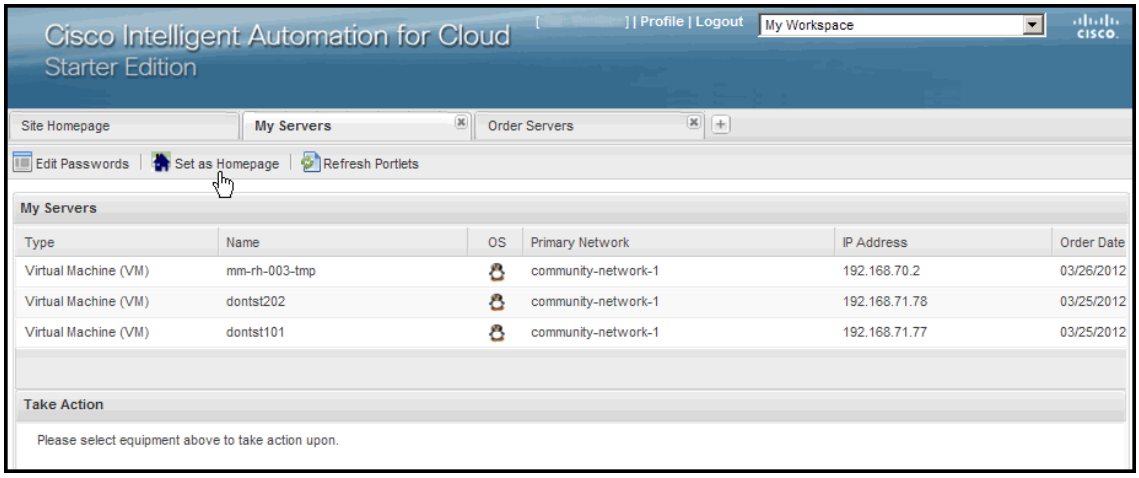
Step 6 Repeat Step 3 through Step 5 for each portal in the **Cisco IAC Starter Edition** and **My Workspace** folders.

Changing Your Site Home Page

My Workspace is the default Site Home page, but you optionally can change your Site Home page to any other module or portal page.

To change your Site Home page, navigate to the module or portal page, and then click **Set as Homepage**.

Figure 1-5 Set as Homepage



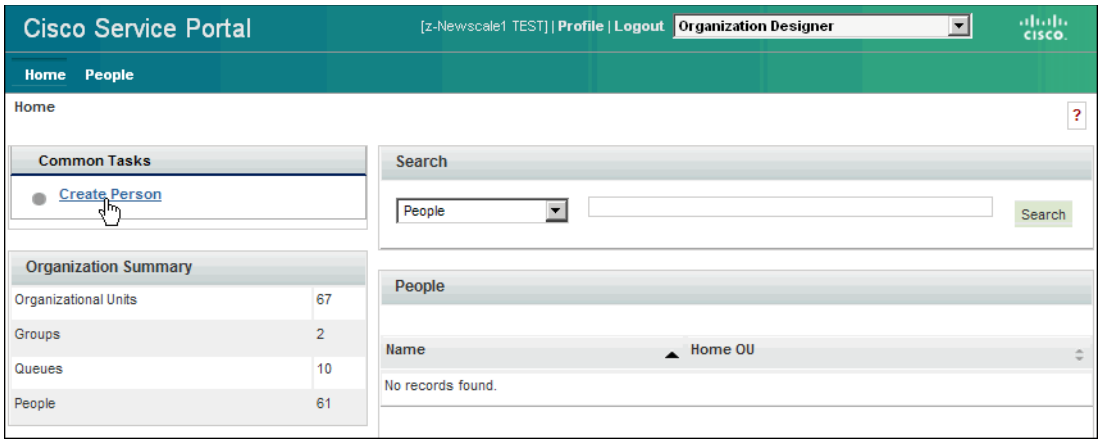
Organization Designer

Note Only Cloud Portal Technical Administrators and Organization Administrators have permissions to access the Organization Designer module.

Cloud Portal Technical Administrators and Organization Administrators use Organization Designer to create, modify, and remove users.

Note Organizations can only be modified in the Organization Management portal. See My Workspace, page 1-4 for how to access portal pages; see Managing Organizations and Users, page 3-1 for information on modifying an organization.

Figure 1-6 Organization Designer Module Home Page

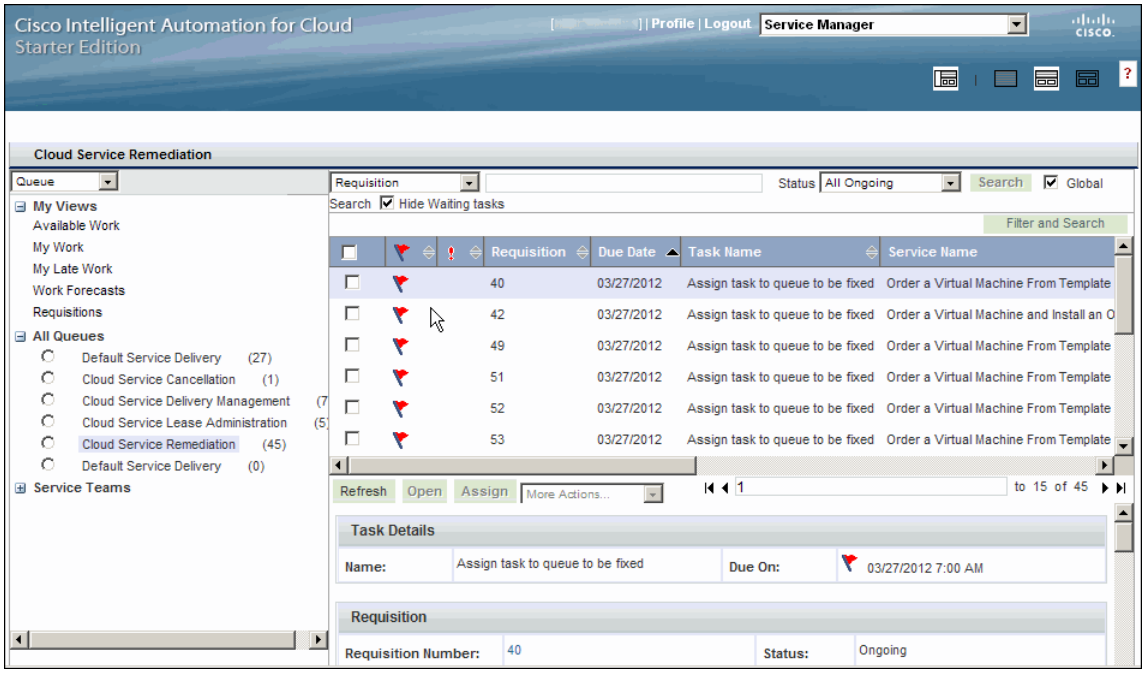


Service Manager

Note Only Cloud Provider Technical Administrators have permissions to access the Service Manager module.

Service Manager enables Cloud Provider Technical Administrators to manage, assign, and track progress on tasks for Service Team members, and to manage remediation of process failures related to Cloud services.

Figure 1-7 Service Manager Module

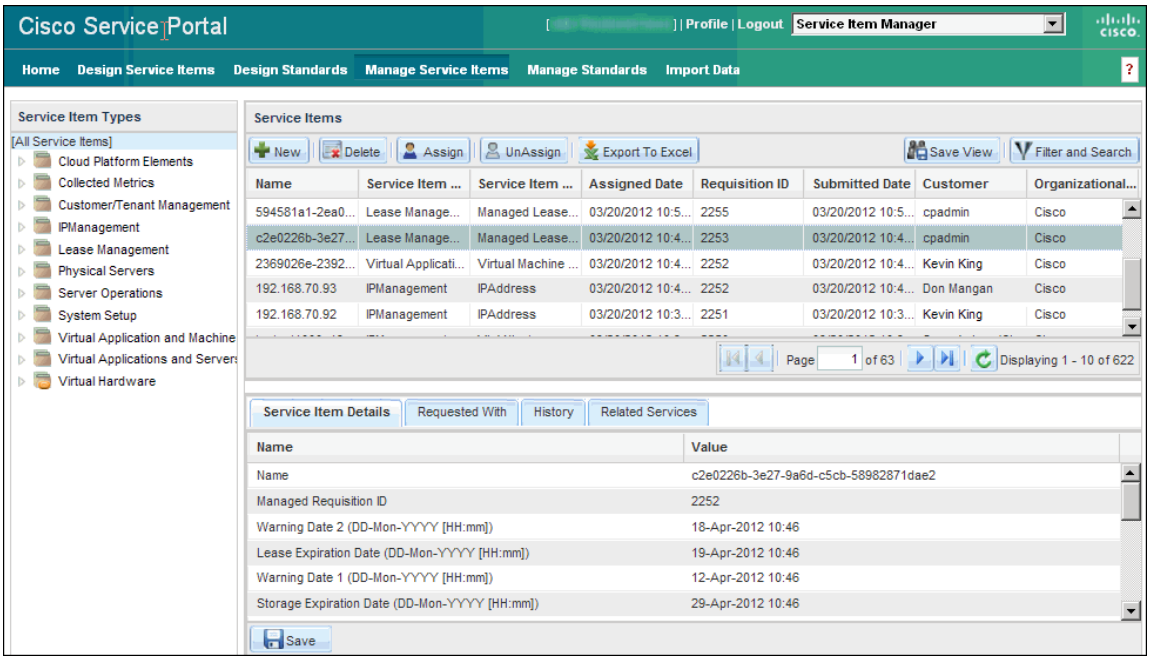


Service Item Manager

Note Only Cloud Provider Technical Administrators have permissions to access the Service Item Manager module.

A service item is a product or intangible asset that can be provisioned via a service request. Its history can be tracked in the Service Item Manager module.

Figure 1-8 Service Item Manager Module



Administration

Note Only Cloud Provider Technical Administrators have permissions to access the Administration module.

Access the Administration module to perform administrative tasks, such as editing system-wide settings and configuring authorizations and reviews.

Catalog Deployer

Note Only Cloud Provider Technical Administrators have permissions to access Catalog Deployer.

Catalog packages are deployed from Catalog Deployer under two specific conditions:

- During initial Cloud Portal configuration
- The catalog needs to be updated with new or modified services

Caution You cannot deploy catalog content all at once, nor can the new content be deployed at all sites. Deploying catalog content developed for one site may adversely affect the functionality of another site, based on that site's settings.

Portals and Portlets

Portals and portlets (subsets of certain portals) contain links to the order forms for services.

Portal groups are contained within modules according to purpose. Portlets are features on some portal pages.

Portals

Portals can serve three purposes:

- Provide information—For example, the System Resources portal displays capacity information about your cloud resources, including UCS blades and virtual datacenters.
- Link to forms—For example, the Tenant Management portal provides links to forms for adding or removing users, viewing and modifying organization properties, removing organization networks, and so on.
- Provide both—For example, the My Servers portal displays tables with specifications and editable properties of the servers under your control. It also allows you to perform several services on a server, such as powering up or down, decommissioning, and reverting to snapshots (virtual machines only).

Starter Edition provides the following portals. Access depends on your role.

- Network Management—View network IP addresses and network capacity information. (Cloud Provider Technical Administrators)
- System Resources—View capacity information for virtual clusters, UCS blades, and chassis. (Cloud Provider Technical Administrators)
- System Setup—Manage a variety of cloud resources, including data connections, server templates, networks, UCS blades and blade pools. (Cloud Provider Technical Administrators)
- Organization Management—Add, modify, and remove organizations, and add or remove an organization network. (Cloud Provider Technical Administrators and Organization Technical Administrators)
- User Management—Add, modify, or remove users in an organization. (Cloud Provider Technical Administrators and Organization Technical Administrators)

- My Servers—View and perform actions on your deployed servers, including powering up or down, decommissioning, and snapshots. (All users)
- Order Servers—Commission a virtual or physical server. (All users)

Portlets

Portlets are subcategories on the System Setup portal in My Workspace.

Note Only Cloud Provider Technical Administrators can access the portlets.

System Setup portal contains the following portlets:

- Administrators—Assign or remove a Cloud Provider Technical Administrator.
- Connections—Connect cloud infrastructure and directory server.
- Blades and Pools—Register or remove UCS blades, and move blades between maintenance, virtual, and physical server pools.
- System Settings
  - Configure provisioning settings, including time zone and cloning timeout.
  - Customize the default email notification templates by specifying email addresses and adding message content.
- Networks—Add, modify, or remove a network in the cloud system.
- Shared Zone
  - Define the attributes for the data center zone, which includes provisioning networks and the VMware vCenter data center, in which all cloud servers are deployed.
  - Assign an organization as the organization administrator for the cloud system.
- Templates—Register, remove, or update the virtual machine, operating system, and UCS server profile templates that define configurations that users can select when commission a server.
- Standards—Define sets of standard options, including server size and lease terms, that are available for users to select when ordering servers.

Customization of Table Views

In Cloud Portal, most tables views are customizable for each user. You can sort rows in ascending or descending order by column. In some cases, you can also choose which columns to show or hide to meet your needs and make the information easier to read.

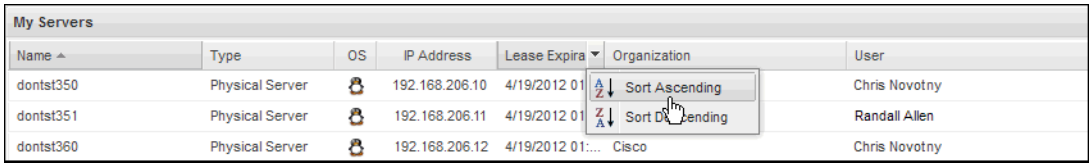
When you change the table view, your personal settings are retained unless or until you change them again, of if you have cookies disabled in your browser settings.

Re-sort Rows by Column

By default, table rows are sorted by ascending order of the first column. To re-sort the rows by another column, click the column title.

To re-sort the rows in ascending or descending order by column, hover the mouse pointer over the far right side of the column title until an arrow appears, click the arrow, and then choose **Sort Ascending** or **Sort Descending**.

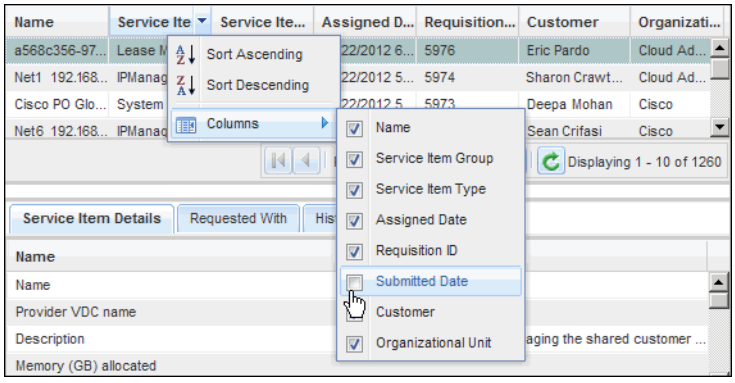
Figure 1-9 Sort Ascending by Column



Add or Remove Columns

Hover the mouse pointer over the far right side of the column title until an arrow appears, click the arrow and choose **Columns**. In the Columns menu, check or uncheck the check boxes of any of the available columns.

Figure 1-10 My Servers—Adding or Removing Columns



User Roles and Capabilities

Cisco Intelligent Automation for Cloud features pre-defined user roles that determine what individuals can access and perform. There are four roles:

- Cloud Provider Technical Administrator
- Organization Technical Administrator
- Virtual and Physical Server Owner
- Virtual Server Owner

Capabilities by User Role, page 1-14 compares capabilities by role.

In addition to the four user roles, the system-defined “Anyone role applies to all people within an organization. This role is a selectable option for certain user properties that identify individuals who can order on behalf of the user and read or change the user’s record.

Cloud Provider Technical Administrator

Cloud Provider Technical Administrators manage the underlying infrastructure of Starter Edition—the Cisco Tidal Enterprise Orchestrator, Cisco UCS Manager, Cisco Server Provisioner, VMware vCenter, and Cloud Portal. As employees of the Service Provider, Cloud Provider Technical Administrators are responsible for purchasing, installing, and configuring the Starter Edition solution, and then inviting customers to be customers of the Cloud solution.

Cloud Provider Technical Administrators have access to the following modules:

- My Workspace—Access and perform tasks from all portals and portlets.
- Organization Designer—Create organizations and users.
- Service Item Manager
  - Track ordered service items charged to a particular department within an organization
  - Manage standards for service items, such as lease terms, network types, operating system types, platform element types and options, and so on.
- Administration
  - Link to and utilize data from your enterprise directory and other sources of user data
  - Customize your Cloud Portal environment with colors and branding, and turn on or off various site-wide settings, such as custom style sheets and directory integration
  - Modify standard lists of values used across the site and in related reports
- Catalog Deployer
  - Import, configure, and deploy packages services, service offerings, and individual non-service components. These tasks are performed during Cloud Portal installation and when new services need to be added to the catalog.

Note Important! Please read the Caution message in Catalog Deployer, page 1-9 before using Catalog Deployer.

Organization Technical Administrator

Organization Technical Administrators are employees of the organization with some administrative access and control over their organization's environment. The Organization Technical Administrators manage an organization's user accounts, virtual data centers, and organization-specific service catalogs in Cisco Cloud Portal. They also assign users to Server Owner roles within the organization.

The Organization Technical Provider has access to the following modules:

- My Workspace
  - My Servers—View a list of all of the servers you own or manage, and perform actions such as powering up or down, taking a snapshot, or decommissioning.
  - User Management—Add, modify, and remove users.
  - Order Servers—Commission a virtual machine.
  - View Requisitions—Track your requisitions and their fulfillment status.
- Organization Designer—Create users

Virtual Server Owner

The Virtual Server Owner is an employee of the organization who orders and provisions virtual machines.

The Virtual Server Owner has access to the following portal pages:

- My Workspace
  - My Servers—View a list of all of the servers you own or manage, and perform actions such as powering up or down, taking a snapshot, or decommissioning.
  - Order Servers—Commission or decommission a virtual server.
  - View Requisitions—Track your requisitions and their fulfillment status.

Virtual and Physical Server Owner

The Virtual and Physical Server Owner is an employee of the organization who orders and provisions both virtual and physical servers.

The Virtual and Physical Server Owner has access to the following portal pages:

- My Workspace
  - My Servers—View a list of all of the servers you own or manage, and perform actions such as powering up or down, taking a snapshot, or decommissioning.
  - Order Servers—Commission or decommission a virtual or physical server.
  - View Requisitions—Track your requisitions and their fulfillment status.

Capabilities by User Role

Table 1-1 Capabilities by User Role

Task Description	VSO[1]	V/PSO[2]	OTA[3]	CPTA[4]
Cloud Portal—General Tasks				
Manage personal profile settings	•	•	•	•
View and perform authorizations	•	•	•	•
View MyServices Items	•	•	•	•
Order services	•	•	•	•
View requisitions	•	•	•	•
Server Requisitioning and Operations				
Physical server: Commission		•	•	•
Physical server: Decommission		•	•	•
Physical server: Power down		•	•	•
Physical server: Power up		•	•	•
Physical server: Power cycle		•	•	•
Virtual machine: Commission with operating system installed	•	•	•	•
Virtual machine: Commission from template	•	•	•	•
Virtual machine: Decommission	•	•	•	•
Virtual machine: Power down	•	•	•	•
Virtual machine: Power up	•	•	•	•
Virtual machine: Power cycle	•	•	•	•
Virtual machine: Take snapshot	•	•	•	•
Virtual machine: Revert to snapshot	•	•	•	•
Virtual machine: Modify configuration	•	•	•	•
Extend managed lease instance	•	•	•	•
Managed lease instance	•	•	•	•
Organizations and Users				
Add and remove organizations			•	•
View organization details			•	•
Define user roles			•	•
Add and remove a user to and from the cloud system			•	•
Add and remove a user to and from an organization				
Modify a user’s record			•	•
Add or remove a Server Owner			•	•
Add, assign, or remove an Organization Technical Administrator			•	•
Re-assign Organizational Technical Administrator to Server Owner			•	•

Table 1-1 Capabilities by User Role (continued)

Task Description	VSO[1]	V/PSO[2]	OTA[3]	CPTA[4]
Re-assign Server Owner to Organizational Technical Administrator			•	•
Add or remove Cloud Provider Technical Administrator				•
Networks				
Add or remove network				•
Add or remove organization network				•
Connections				
Update Cloud connection infrastructure				•
Connect Cloud infrastructure				•
Disconnect platform elements				•
Remove integration targets				•
Shared Server Zone				
Set up and update shared server zone				•
Server Templates				
Register and remove virtual machine templates				•
Register and remove operating system templates				•
Register, update, and remove UCS service profile templates				•
UCS Blades				
Register and remove UCS blades				•
Manage blade pools				•
Service Item Metrics				
Assign metric service item data for cluster, datacenter, datastore, IP address, network, resource pool, and UCS				•
Refresh metrics				•
System Settings				
Configure password rules				•
Configure email notification templates				•

1. Virtual Server Owner
2. Virtual and Physical Server Owner
3. Organization Technical Administrator
4. Cloud Provider Technical Administrator

CHAPTER 2

Managing the Cloud System

Note To perform many of the procedures covered in this guide, you must have access to portals in the form of tabs in My Workspace. To add portals to My Workspace, see Adding Portal Pages to My Workspace, page 1-5.

After the initial set up of your cloud system, there are tasks you must perform the keep the system running smoothly.

This chapter provides information on managing the resources in your cloud system. It includes the following sections:

Managing Resources

The My Servers and System Resource portlets provide specifications and status on your virtual and physical servers, blades, blade chassis, and datacenters.

View Server Status and Properties

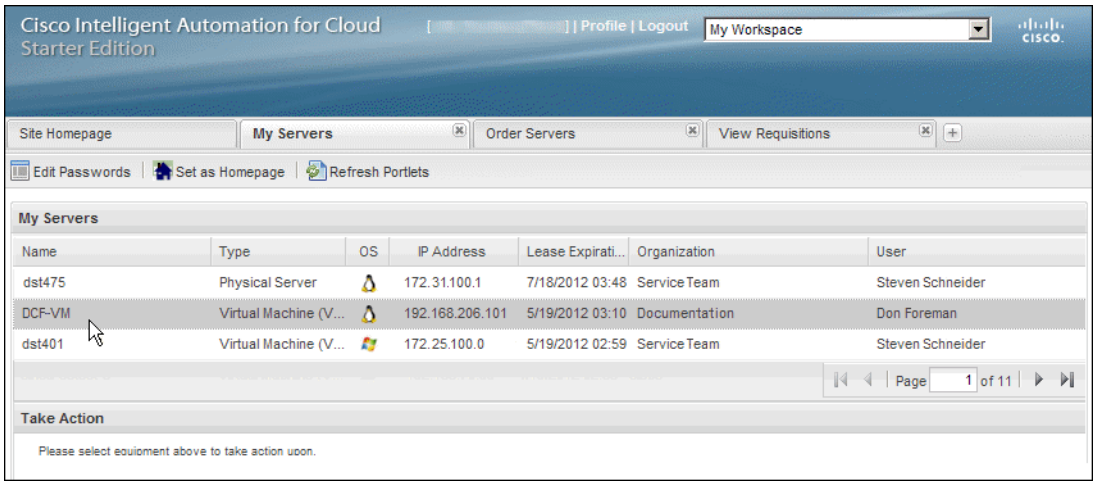
The My Servers portal provides information about all of your active servers. You can monitor status, verify that a server you that ordered has been delivered, and manage power, modify configuration, take snapshots, decommission, and extend an existing lease.‘‘

Step 1 Choose **My Workspace** from the module drop-down list and the **My Servers** tab.

The My Servers portal (Figure 2-1 on page 2-2) displays active servers in a table with information about each server, including type (virtual or physical), operating system, organization, and Server Owner.

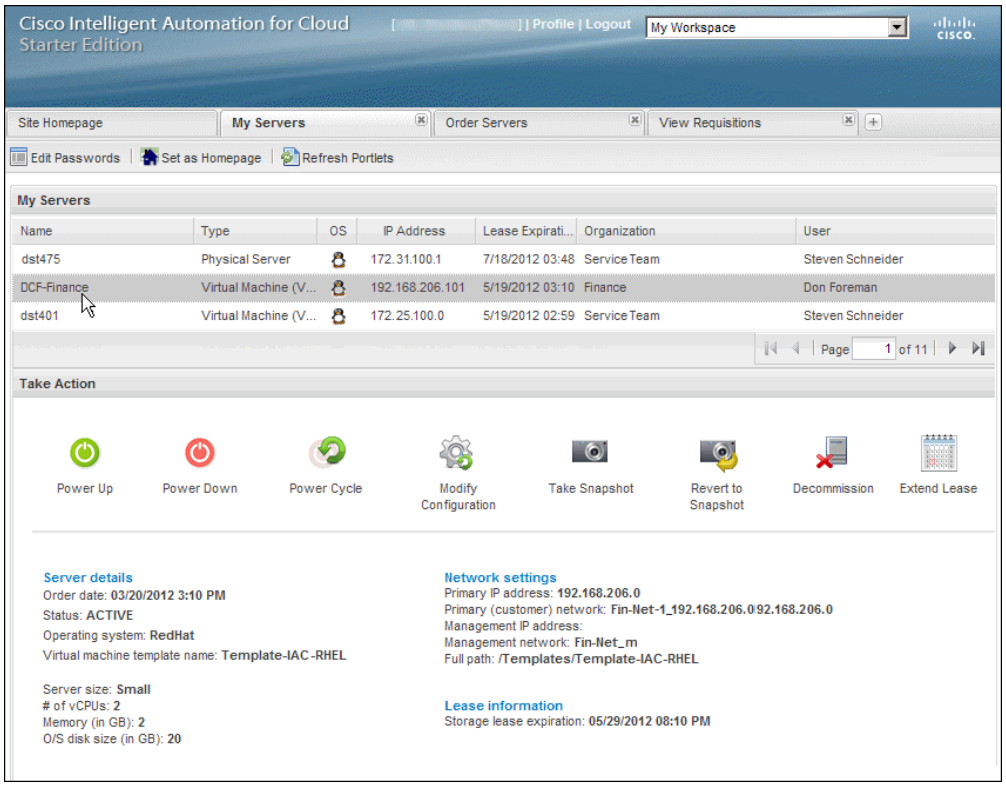
Note Additional columns are available. To add columns to the table, and to re-sort the rows, see Customization of Table Views, page 1-11.

Figure 2-1 My Servers Portal Page



Step 2 To display more details about a server or take action (see list of actions below), click the server name in the My Servers table to display the Take Action panel.

Figure 2-2 My Servers Portal Page Showing Take Action Panel



To take action on a server, click its name, and then click one of the following icons in the Take Action pane:

- Power Up—See Power Up a Virtual Machine, page 2-9
- Power Down—See Power Down a Virtual Machine, page 2-7
- Power Cycle—See Power-cycle a Virtual Machine, page 2-8
- Decommission—See Decommissioning a Virtual Machine, page 4-7 or Decommissioning a Physical Server, page 4-10
- Extend Lease—See Extend or Remove a Server Lease, page 5-16
- Modify Configuration—*Virtual machines only.* See Change the Server Size of a Virtual Machine, page 2-6
- Take Snapshot, Revert to Snapshot, or Delete Snapshot—(Virtual machines only) See Manage Snapshots of Virtual Machines, page 2-10

Note If a server is in the process of being provisioned, all of the icons are disabled.

View System Resource Capacity

On the System Resources portal you can view the following information for your infrastructure resources:

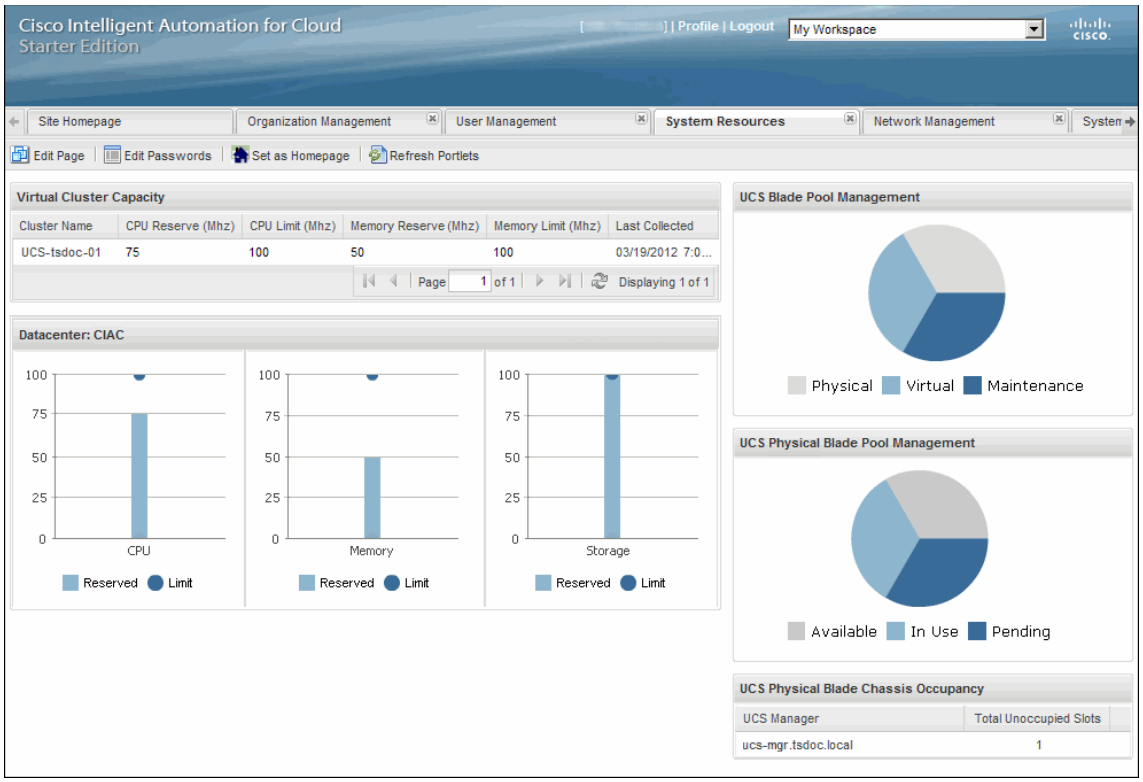
- Capacity statistics for virtual clusters and virtual datacenters
- Proportions of blades in the virtual, physical, and maintenance pools
- Statuses of physical blades in the pool
- Number of unoccupied slots in the physical blade chassis

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Resources** tab.

The System Resources portal (Figure 2-3 on page 2-5) displays following information

Resource	Description
Virtual Cluster Capacity	Indicates CPU and memory resource capacity and allocation for each vCenter cluster. • Cluster Name • CPU Reserved (MHz) • CPU Limit (MHz) • Memory Reserved (GB) • Memory Limit (GB) • Last Collected
Datacenter	Bar graphs illustrating the CPU and memory resource capacity and allocation of all resources in the vCenter datacenter.
UCS Blade Pool Management	Pie chart showing the proportions of Cisco UCS blades in the physical, virtual, and management pools.
UCS Blade Pool Management Physical	Pie chart showing the proportions of physical blades in the management pool that are in of the following states: • Available—The blade is not commissioned or in use by end-users and is available to be commissioned. • In Use—The blade is commissioned and in use by end-users. • Pending—The blade is in transition between blade pools. **Note** For information on Cisco UCS blades and blade pools, see Managing Cisco UCS Blades and Blade Pools, page 2-17.
Physical Blade Chassis Occupancy	Identifies the number of unoccupied slots in the Cisco UCS chassis.

Figure 2-3 System Resources Portal Page



Move Cisco USC Blades Between Resource and Maintenance Pools

Note Only Cloud Provider Technical Administrators can move blades between blade pools.

There is no direct method of transitioning a blade between virtual and physical pools. Instead, you transition the blade first to the maintenance pool, and then to the other pool.

For example, to transition a blade from the virtual pool to physical pool, you move the pool first to the maintenance pool, and then to the physical pool.

Use the maintenance pool to make any of the following transitions:

- Virtual to maintenance
- Physical to maintenance
- From maintenance to either physical or virtual

For steps, see Move a Cisco UCS Blade to or from the Maintenance Pool, page 2-22.

Note You cannot move a blade between pools if it contains any active, commissioned servers. You must first decommission the server or servers.

Managing Virtual Machines

Change the Server Size of a Virtual Machine

Change the vCPU and vRAM (GB) sizes of a virtual machine.

To commission a virtual machine, see Commissioning a Virtual Machine and Installing an Operating System, page 4-2 and Commissioning a Virtual Machine from a Template, page 4-5.

Note The vCPU and vRAM values are set for each server size option and cannot be changed individually.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **My Servers** tab.

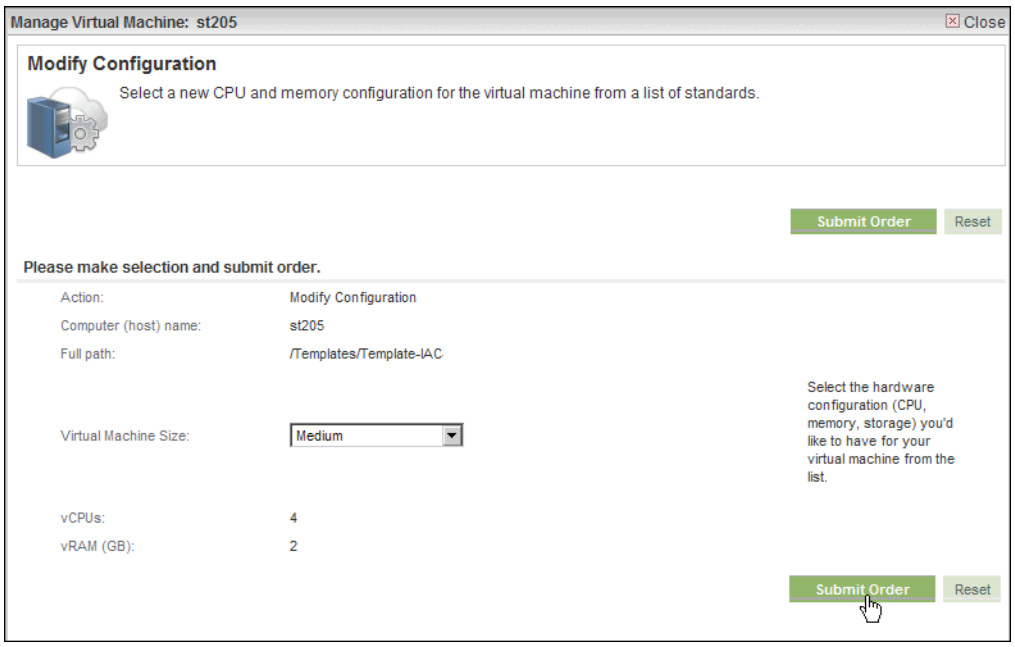
Step 2 On the My Servers portal (Figure 2-1 on page 2-3), locate and click the server in the My Servers panel.

Step 3 In the Take Action panel, click the **Modify Configuration** icon.

Step 4 On the Modify Configuration form, choose a size from the **Virtual Machine Size** drop-down list.

Note Available server size options are customizable by Administrators, and so may vary from the default options that ship with Starter Edition. To view the vCPU and vRAM values for a server size option, choose the option from the drop-down list. The vCPU and vRAM values automatically populate the display-only fields below the drop-down list.

Figure 2-4 Virtual Machine—Modify Configuration



Step 5 Click **Submit Order**.

Power Down a Virtual Machine

Power down an active virtual machine, regardless of its operating system state.

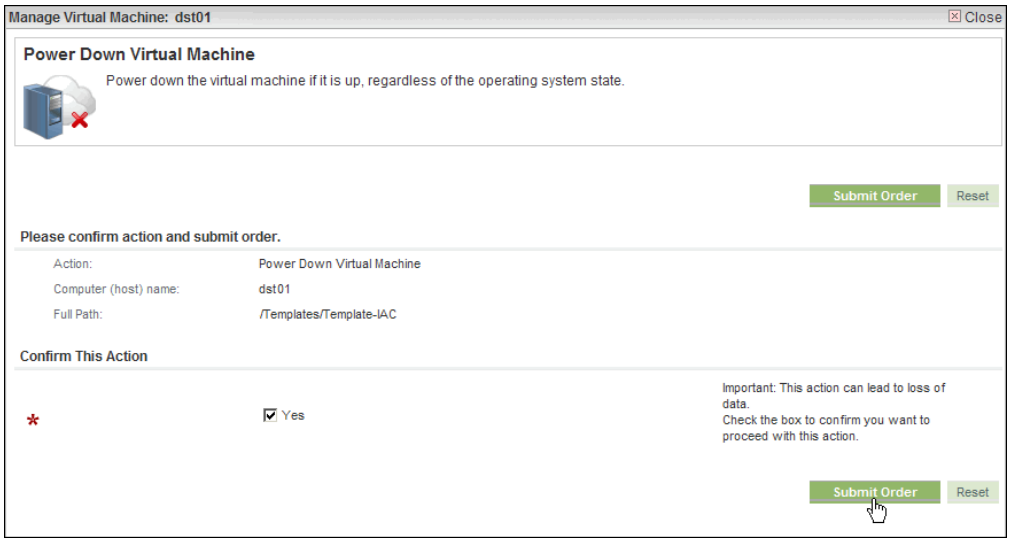
Note To remove a server from use, see Decommissioning a Virtual Machine, page 4-7.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **My Servers** tab.

Step 2 On the My Servers portal page (Figure 2-1 on page 2-2), click the name of the virtual machine to display the Take Action panel (Figure 2-2 on page 2-3).

Step 3 Click the **Power Down** icon to open the Power Down Virtual Machine form.

Figure 2-5 Power Down Virtual Machine Form



Step 4 In the Confirm Action area, check the check box if you are sure the selected server is the one that you want to power down.

Step 5 Click **Submit Order**.

Power-cycle a Virtual Machine

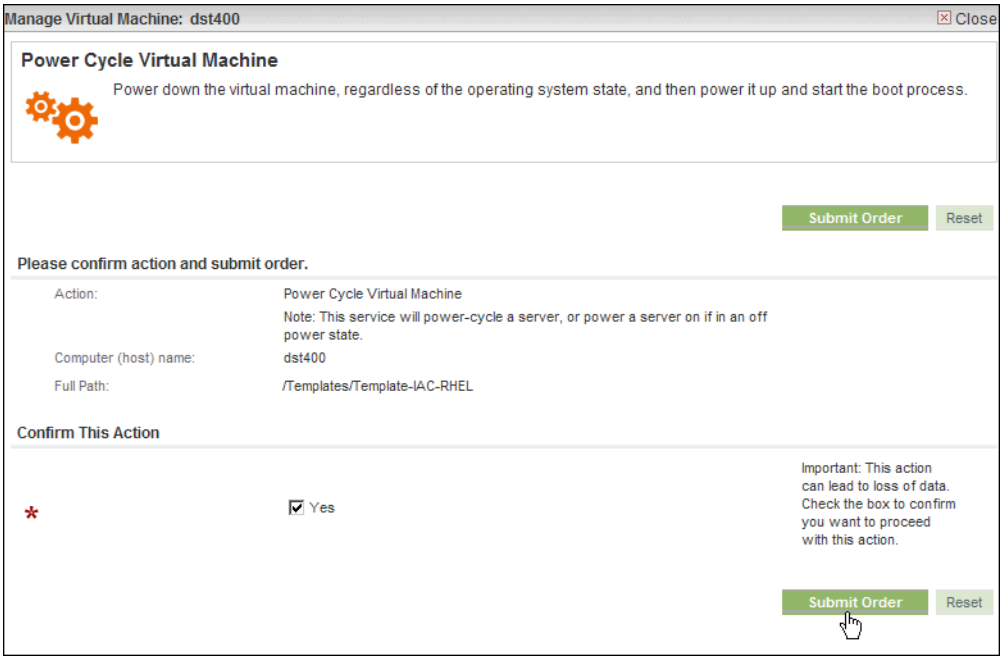
Use the power-cycle service to power-down a virtual machine, regardless of its operating system state, and then power it up and start the boot process.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **My Servers** tab.

Step 2 On the My Servers portal page (Figure 2-1 on page 2-2), click the name of the virtual machine to display the Take Action panel (Figure 2-2 on page 2-3).

Step 3 Click the **Power Cycle** icon to open the Power Cycle Virtual Machine form.

Figure 2-6 Power Cycle Virtual Machine Form



Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 4 In the Confirm Action area, check the check box if you are sure the selected server is the one that you want to power cycle.

Step 5 Click **Submit Order**.

Power Up a Virtual Machine

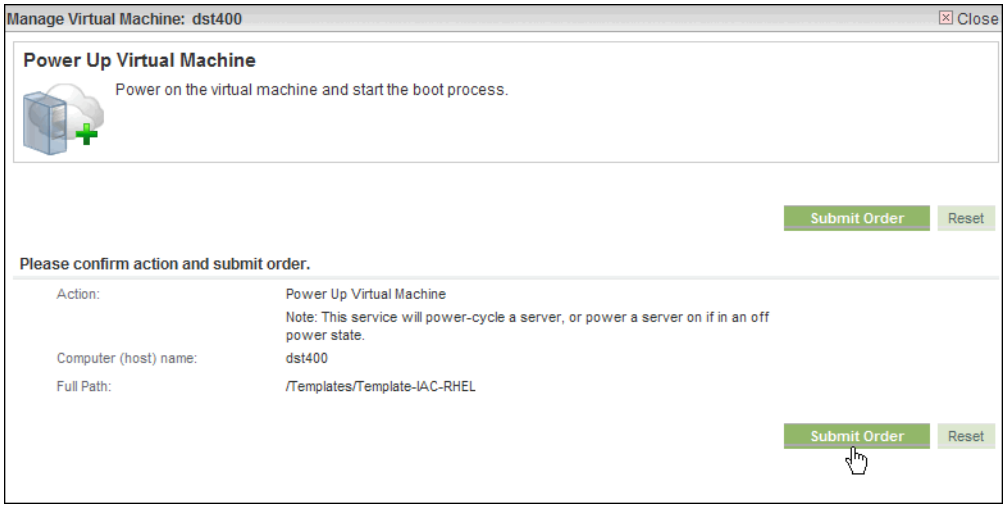
Power up a virtual machine that has been powered-down, and start the boot process.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **My Servers** tab.

Step 2 On the My Servers portal page (Figure 2-1 on page 2-2), click the name of the virtual machine to display the Take Action panel (Figure 2-2 on page 2-3).

Step 3 Click the **Power Up** icon to open the Power Cycle Virtual Machine form.

Figure 2-7 Power Up Virtual Machine Form



Step 4 If you are sure the selected server is the one that you want to power up, click **Submit Order**.

Manage Snapshots of Virtual Machines

Create, revert to, view an archive of, and remove snapshots of virtual machines.

Take a Snapshot of a Virtual Machine

Create, name, and store an image of the current settings for a virtual machine.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **My Servers** tab.

Step 2 On the My Servers portal page (Figure 2-1 on page 2-2), click the name of the virtual machine to display the Take Action panel (Figure 2-2 on page 2-3).

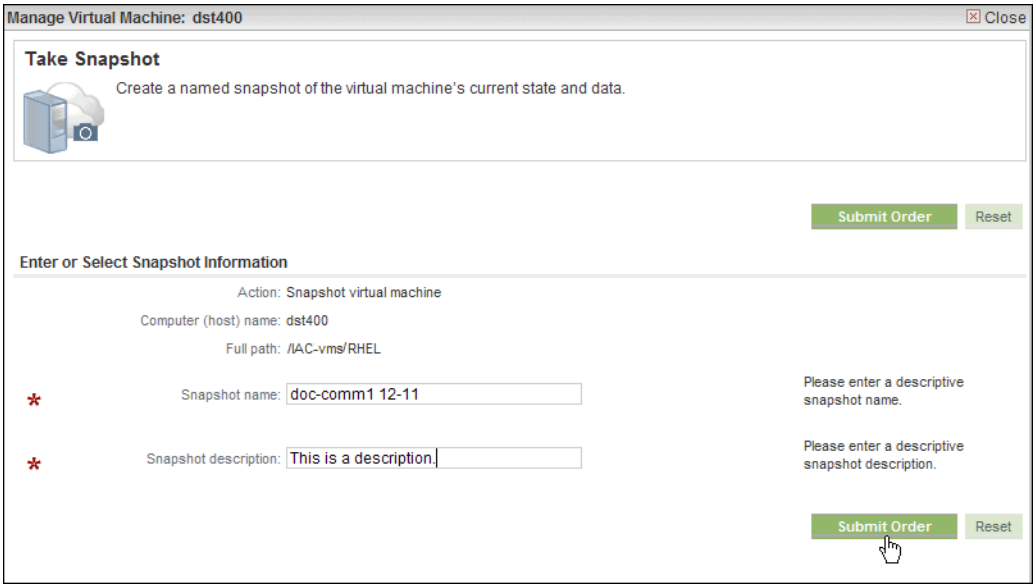
Step 3 Click the **Take Snapshot** icon to open the Take Snapshot form.

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 4 In the snapshot name field, enter a unique and descriptive name for the snapshot.

Step 5 Enter a description of the snapshot.

Figure 2-8 Take Snapshot Form



Step 6 Click **Submit Order**.

Revert a Virtual Machine Settings to Snapshot

Revert a virtual machine to a previous state using the snapshot of your choice.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **My Servers** tab.

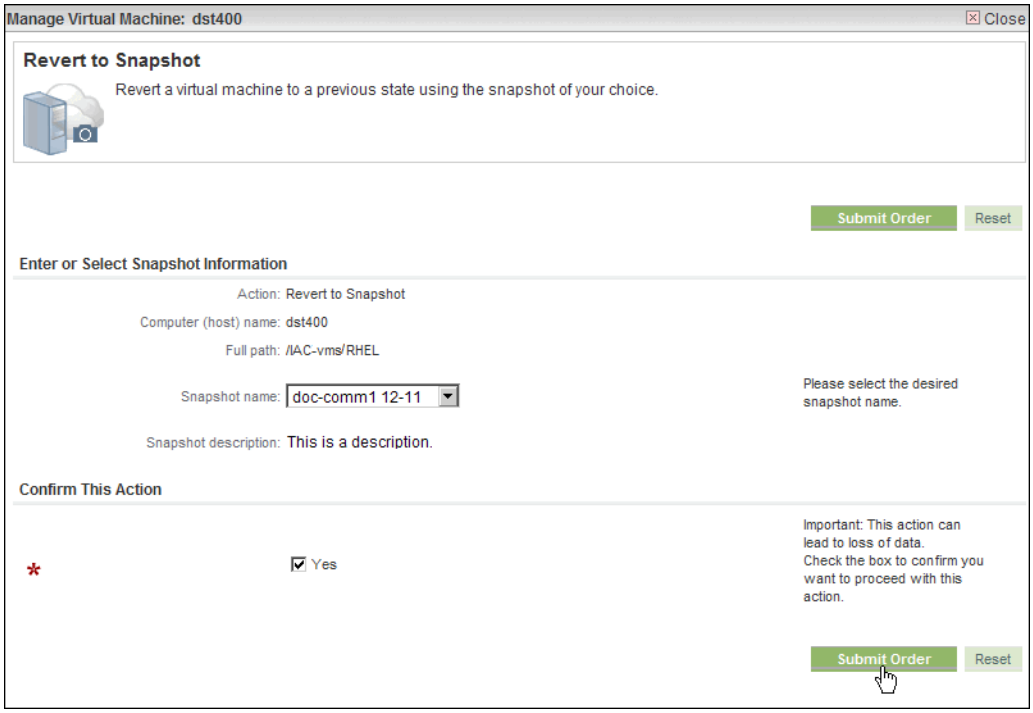
Step 2 On the My Servers portal page (Figure 2-1 on page 2-2), click the name of the virtual machine to display the Take Action panel (Figure 2-2 on page 2-3).

Step 3 Click the **Revert Snapshot** icon to open the Revert to Snapshot form.

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 4 From the Snapshot name drop-down list, choose the snapshot to which you want to revert the selected virtual machine.

Figure 2-9 Revert to Snapshot Form



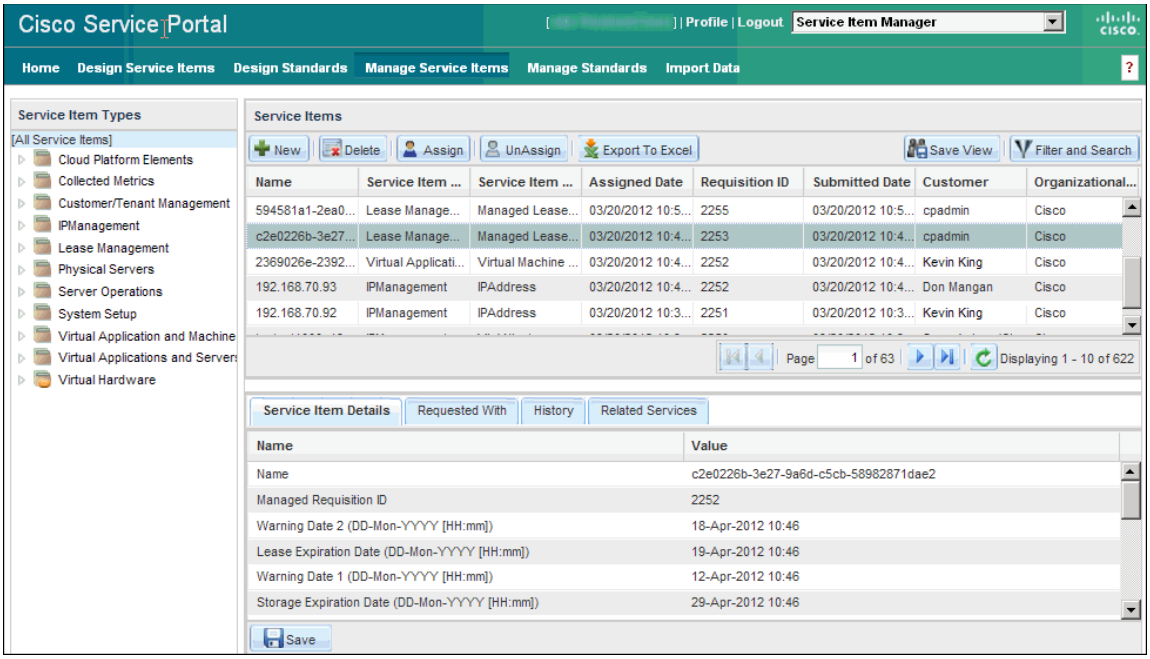
Step 5 Check the Confirm This Action check box if you are sure that you want to revert the virtual machine to the snapshot, and then click **Submit Order**.

View Archived Snapshots

View an archive of snapshots taken of virtual machines within an organization. From the list, you can view history and related services of a snapshot, and delete a snapshot.

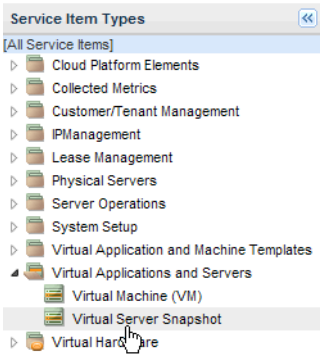
Step 1 Choose **Service Item Manager** from the module drop-down list and then click the **Manage Service Items** tab.

Figure 2-10 Manage Service Items Portal



Step 2 In the Service Items Types panel on the Manage Service Items portal expand Virtual Applications and Servers, and then click **Virtual Server Snapshot**.

Figure 2-11 Service Item Type—Virtual Server Snapshot



The Service Items panel refreshes to display snapshots taken of virtual machines within an organization.

Delete a Snapshot

Permanently delete a server snapshot.

Step 1 Follow the steps outlined in View Archived Snapshots, page 2-12.

Step 2 Locate and click the snapshot in the Service Items panel, and then click **Delete**.

Managing Physical Servers

Power Down a Physical Server

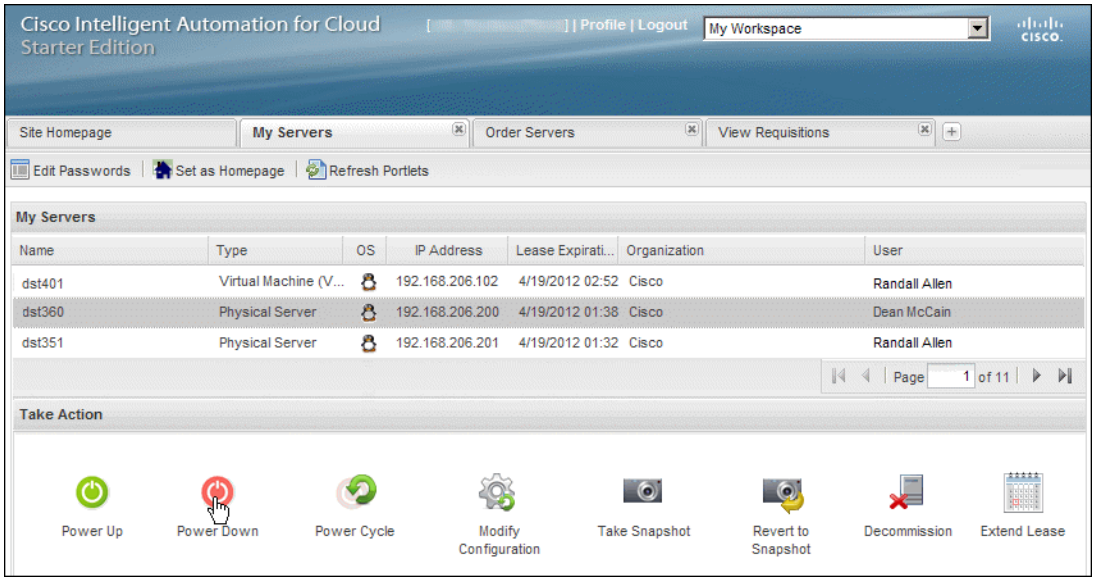
Power down an active physical server, regardless of its operating system state.

Note For information on removing a physical server from use, see Decommissioning a Physical Server, page 4-10.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **My Servers** tab.

Step 2 On the My Servers portal (Figure 2-1 on page 2-3), locate and click the physical server that you want to power down.

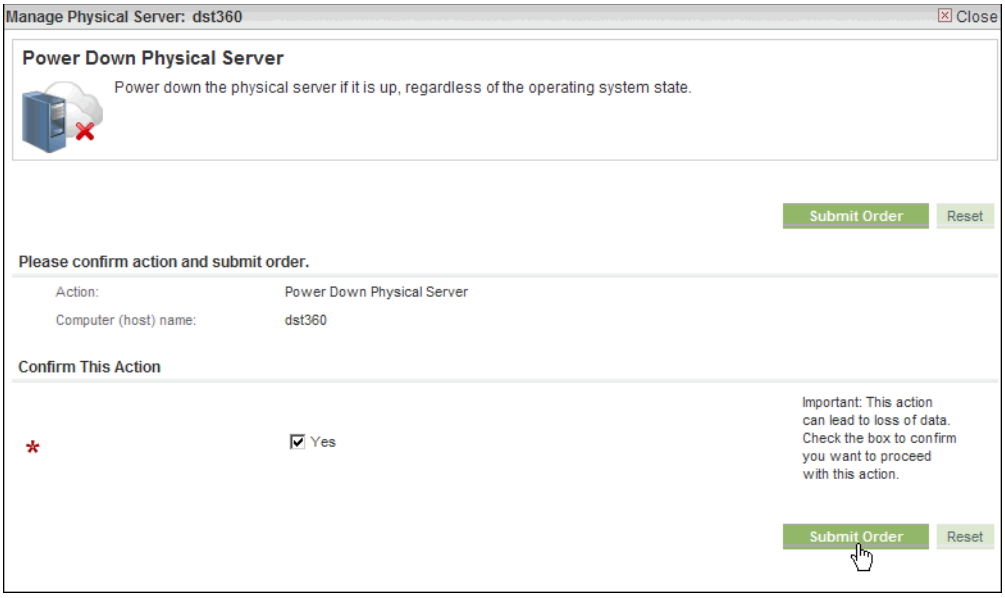
Figure 2-12 Power Down Physical Server



Step 3 In the Take Action panel, click the **Power Down** icon.

The Power Down Physical Machine form displays the name of the server.

Figure 2-13 Power Down Physical Server Form



Step 4 In the Confirm Action area, check the check box if you are sure the selected server is the one that you want to power down.

Step 5 Click **Submit Order**.

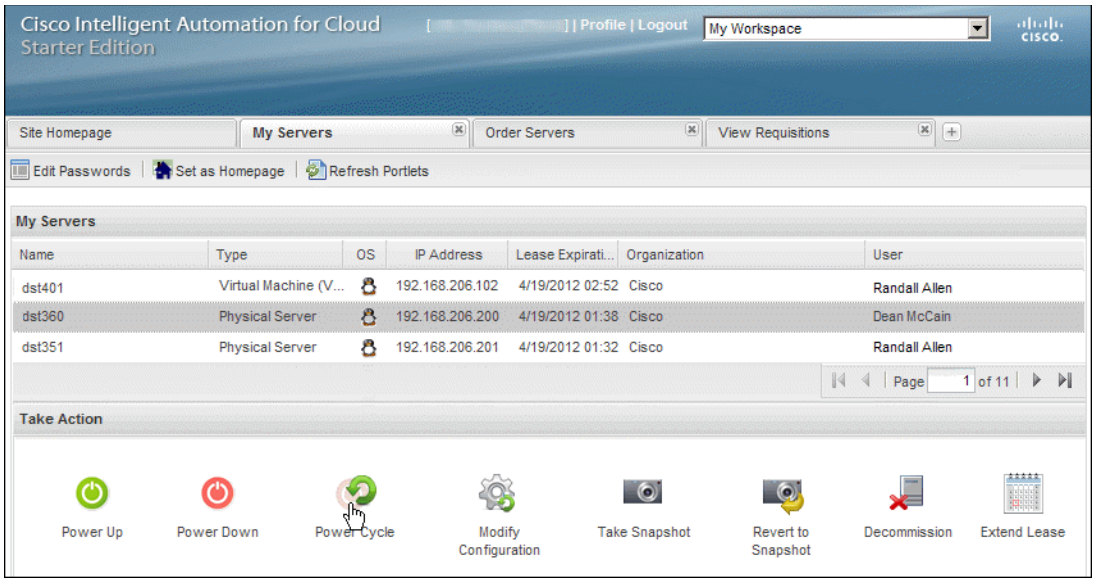
Power-cycle a Physical Server

Use the power-cycle service to reset power on a physical server.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **My Servers** tab.

Step 2 On the My Servers portal (Figure 2-1 on page 2-3), locate and click the physical server that you want to power cycle.

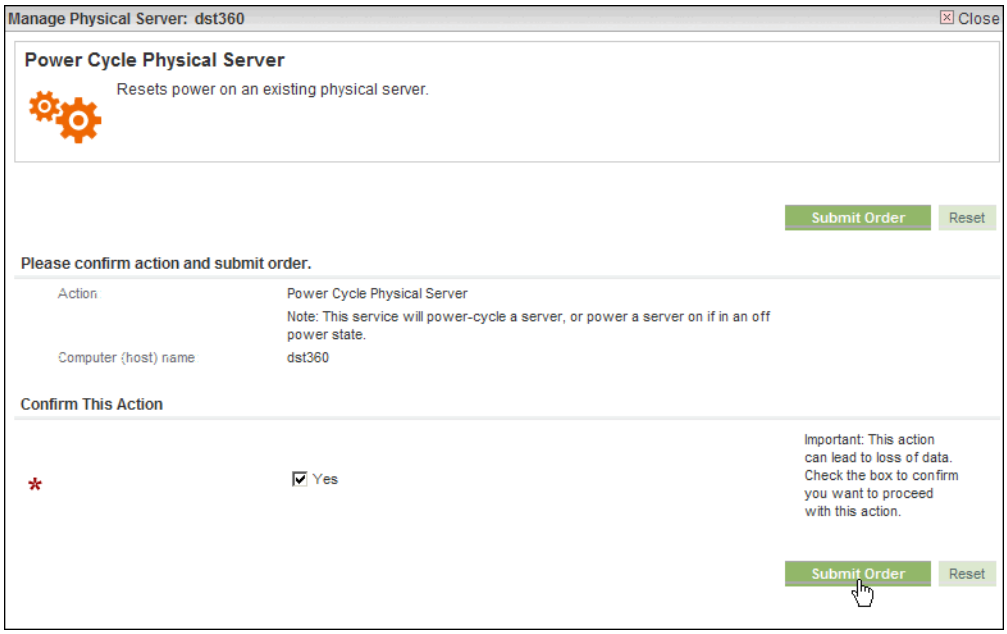
Figure 2-14 Power Cycle Physical Server



Step 3 In the Take Action panel, click the **Power Cycle** icon.

The Power Cycle Physical Machine form displays the name of the server.

Figure 2-15 Power Cycle Physical Server Form



Step 4 In the Confirm Action area, check the check box if you are sure the selected server is the one that you want to power cycle.

Step 5 Click **Submit Order**.

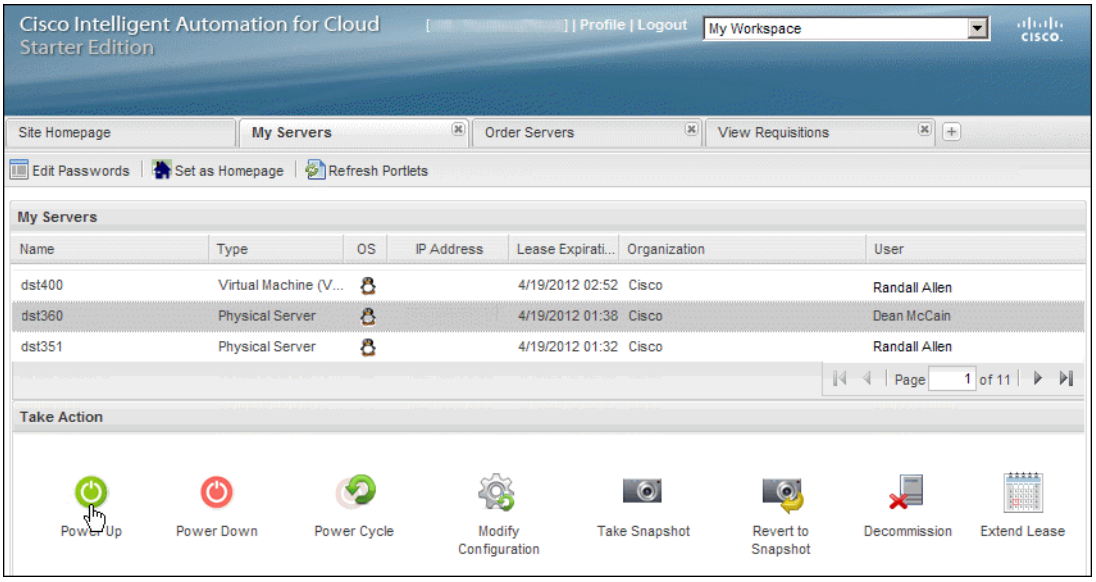
Power Up a Physical Server

Power up a physical server and start the boot process.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **My Servers** tab.

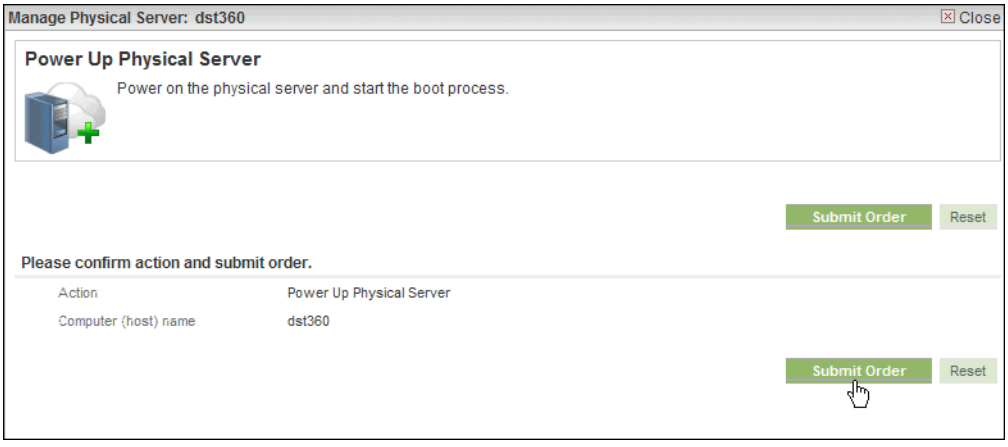
Step 2 On the My Servers portal (Figure 2-1 on page 2-3), locate and click the physical server that you want to power up.

Figure 2-16 Power Up Physical Server



Step 3 In the Take Action panel, click the **Power Up** icon.

Figure 2-17 Power Up Physical Server Form



Step 4 Click **Submit Order**.

Managing Cisco UCS Blades and Blade Pools

Note Only Cloud Provider Technical Administrators can transition blades between pools or remove blades.

When a blade is first registered, it is placed into the Maintenance pool in the Available state. After registration, the Cloud Provider Technical Administrator manages blades using the Manage Pools and Remove UCS Blade services.

There are three pool types:

- Maintenance—A holding area for blades that are registered but have not been identified for a reason. Blades in the maintenance pool are owned and managed by Cloud Provider Technical Administrator and are not available to Server Owners.
- Virtual—Blades in this pool have been identified for hosting virtual machines. They have been provisioned with VMware ESXi. Blades in this pool never carry a status of Available, only In Use or Pending.
- Physical—Blades in this pool have been assigned for use by Server Owners. They may carry a status of Available, In Use, or Pending.

Each registered UCS blade is in one of the following statuses:

- Available—The blade is unassigned and not in use; it is available for physical server provisioning or VMware ESXi provisioning.
- In Use—The blade is assigned and in use by either a Server Owner (running Windows or Linux) or a Cloud Provider Technical Administrator as a VMware ESXi host.
- Pending—A physical or VMware ESXi server on the blade is provisioning.
  - For a provisioning physical server, the blade is in the physical pool and is not in transition, but its status is changing from available to pending, or from pending to in use.
  - For a provisioning ESXi server, the blade is in transition from the maintenance pool to the virtual pool.

Register a Cisco UCS Blade

Register a UCS blade for use in the cloud system. Registered blades are automatically placed in the maintenance pool.

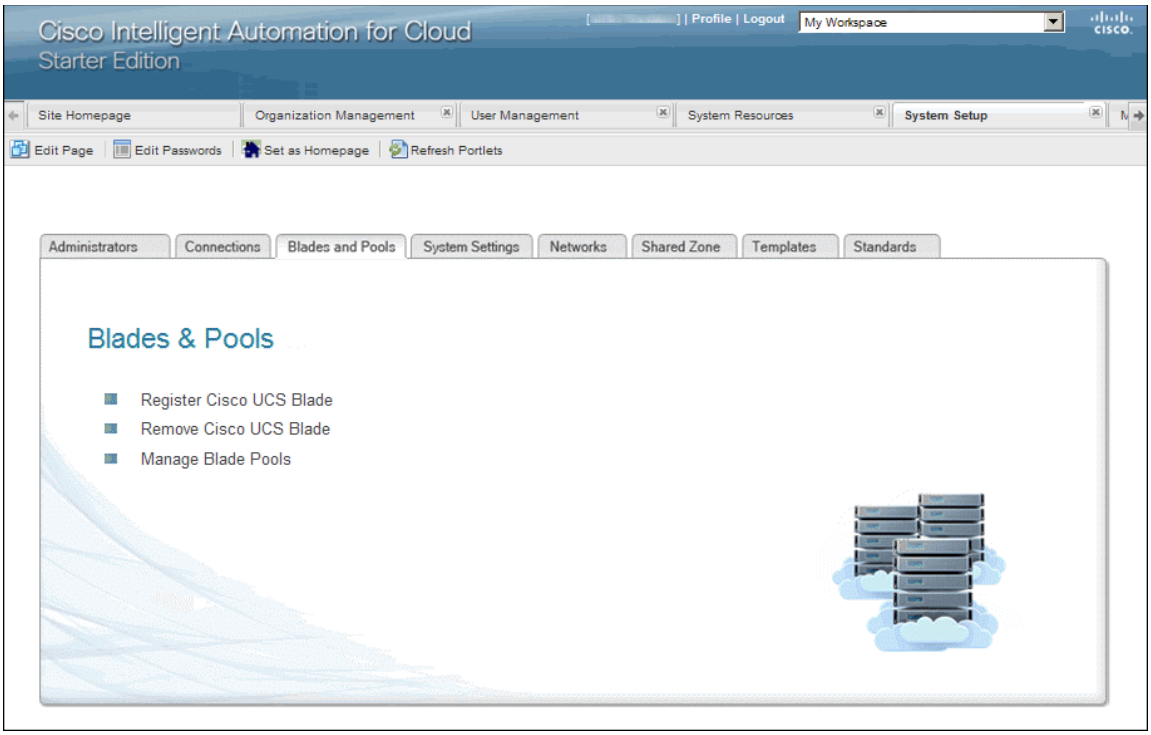
Note You must move the blade from the maintenance pool to the virtual or physical pool to make them available for users to commission physical servers and VMware ESXi hosts.

Note Before you can register a blade, it must already be installed in a UCS chassis.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

Step 2 In the System Setup portal, click the **Blades and Pools** tab.

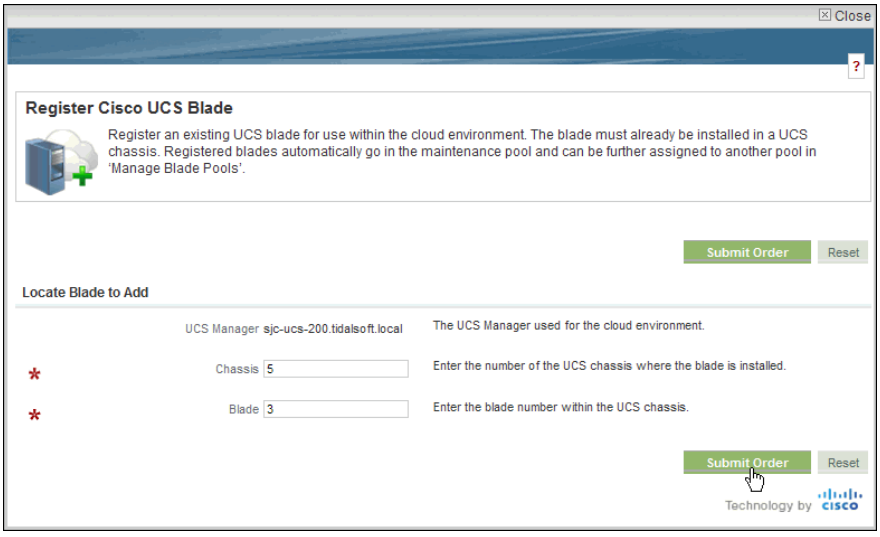
Figure 2-18 Blades & Pools Portlet



Step 3 In the Blades & Pools portlet, click **Register Cisco UCS Blade**.

Step 4 On the Register Cisco UCS Blade form, enter the number of the UCS chassis where the blade is installed, and then enter the blade number within the chassis.

Figure 2-19 Register Cisco UCS Blade Form



Step 5 Click Submit **Order**.

Modify Properties of a Cisco UCS Blade

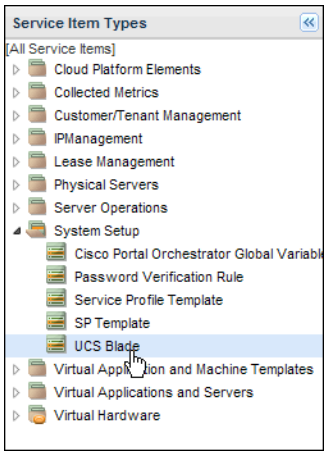
Modify any of the following properties of a UCS blade:

- Organization
- Chassis number
- Blade number in the chassis
- Pool type
- UCS manager
- Status

Step 1 Choose **Service Item Manager** from the module drop-down list and then click the **Manage Service Items** tab.

Step 2 In the Service Items Type panel on the Manage Service Items portal (Figure 2-10 on page 2-12), expand System Setup, and click **UCS Blade**.

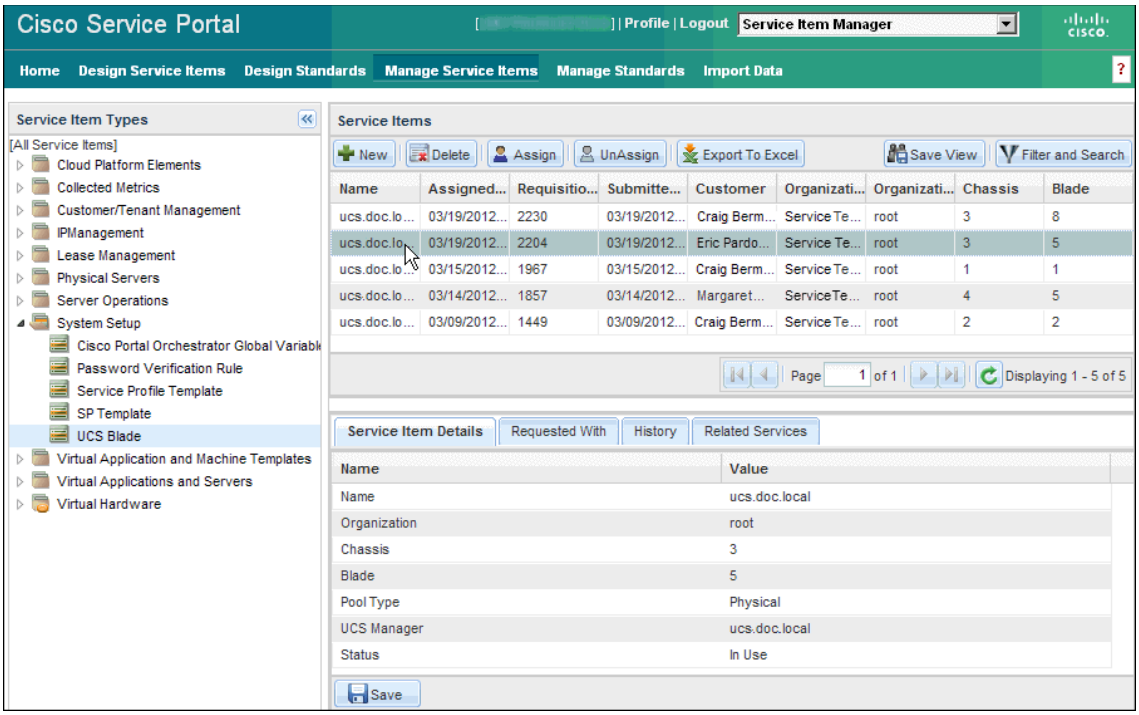
Figure 2-20 Service Item Types—UCS Blades



Step 3 In the Service Items panel, locate and click the UCS blade that you want to modify.

Properties of the selected blade appear in the Service Item Details panel.

Figure 2-21 UCS Blade Details



Step 4 Click in the fields to edit values.

Step 5 Click **Save**.

Remove a Cisco UCS Blade from the Blade Pool

Permanently remove a Cisco UCS Blade from the blade pool. To remove the blade from service without permanently removing it, you can place it in maintenance mode. See Move a Cisco UCS Blade to or from the Maintenance Pool, page 2-22.

Note Before you can remove a Cisco UCS blade, you must first place it in maintenance mode. See Move a Cisco UCS Blade to or from the Maintenance Pool, page 2-22.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

Step 2 On the System Setup portal click the **Blades and Pools** tab.

Step 3 On the Blades & Pools portlet (Figure 2-18 on page 2-18), click **Remove Cisco UCS Blade**.

Step 4 On the My Servers portal page (Figure 2-1 on page 2-2), click the name of the virtual machine to display the Take Action panel (Figure 2-2 on page 2-3).

Step 5 Click the **Revert Snapshot** icon to open the Revert to Snapshot form.

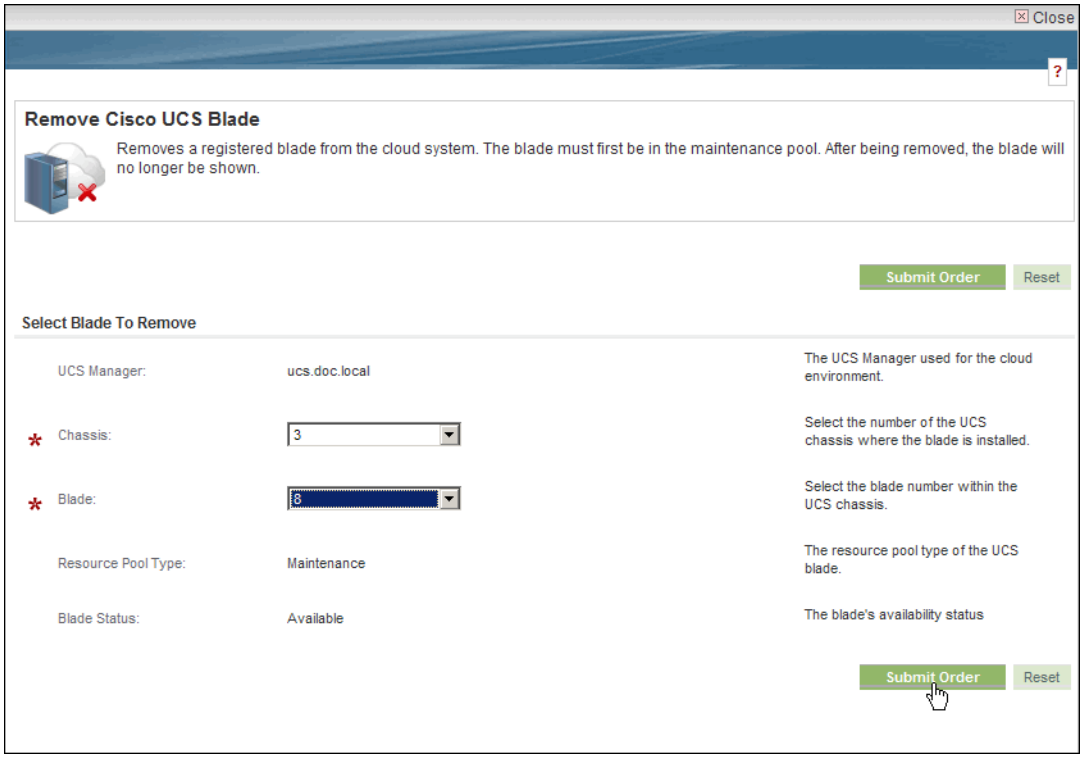
Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 6 The Remove Cisco UCS Blade form, choose the number of the UCS chassis where the blade is installed from the UCS Chassis drop-down list.

Step 7 From the Blade drop-down list, choose the blade number within the UCS chassis.

The Resource Pool Type and Blade Status display-only fields populate. If Blade Status is In Use or Pending, you must change the status to maintenance before you can proceed with the removal. See Move Cisco USC Blades Between Resource and Maintenance Pools, page 2-5.

Figure 2-22 Remove Cisco UCS Blade Form



Step 8 Review the information to confirm that the selected Cisco UCS blade is the one that you want to remove, and then click **Submit Order**.

Move a Cisco UCS Blade to or from the Maintenance Pool

Note You must be a Cloud Provider Technical Administrator to move blades between pools.

In the Blades and Pools portlet, you can move virtual or physical blades between maintenance and resource pools to create or extend the virtual cloud resource pool, and to repair or run maintenance on, re-purpose, or remove the blade.

Depending on the type of blade, you may be required to create or remove servers on the blade. If such an action is required, an alert will notify you.

Note To move a blade between pools, you need to know the numbers of the Cisco UCS chassis and UCS blade is installed.

Table 2-1 lists blade transition types and any associated requirements.

Table 2-1 Types of Blade Transitions

Origin Pool	Destination Pool	Requirements for Move
Maintenance	Virtual	Server Owner must commission a ESXi server on the blade.
Maintenance	Physical	None
Virtual	Maintenance	Server Owner must decommission the ESXi server on the blade.
Physical	Maintenance	None
Physical— *In Use*	Maintenance	Server Owner must decommission the physical server on the blade.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

Step 2 On the System Setup portal page click the **Blades and Pools** tab.

Step 3 On the Blades & Pools portlet (Figure 2-18 on page 2-18), click **Manage Blade Pools**.

Step 4 On the Manage Blade Pools form, choose the UCS chassis where the server is installed from the drop-down list.

Step 5 Choose the Cisco UCS blade where the server is installed from the drop-down list.

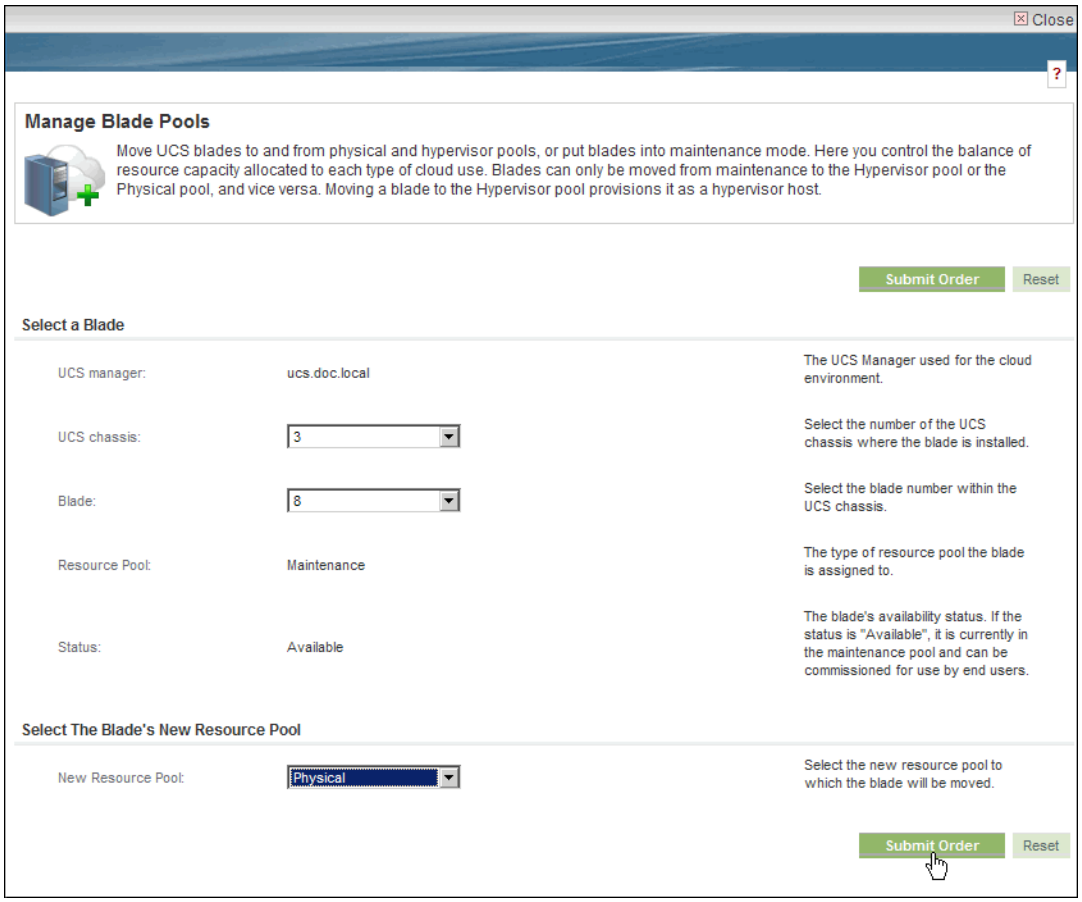
Note On choosing a Cisco UCS blade, the Resource Pool and Status fields update. A blade is unavailable if its status is In Use. (Blades with Pending status are filtered from the list.)

If a virtual blade is In Use, the process to decommission the VMware ESXi host is triggered.

If a physical blade is In Use, a message will notify you that the Server Owner must decommission the physical server before the blade can be moved. In this case, you cannot proceed until the Server Owner takes the required action.

Step 6 Choose **Virtual**, **Physical**, or **Maintenance** from the New Resource Pool Type drop-down list. This is the pool to which you are re-assigning the server.

Figure 2-23 Manage Blade Pools Form



Step 7 Click **Submit Order**.

Managing Networks

View, add, modify, and remove the following types of networks that exist in the cloud system:

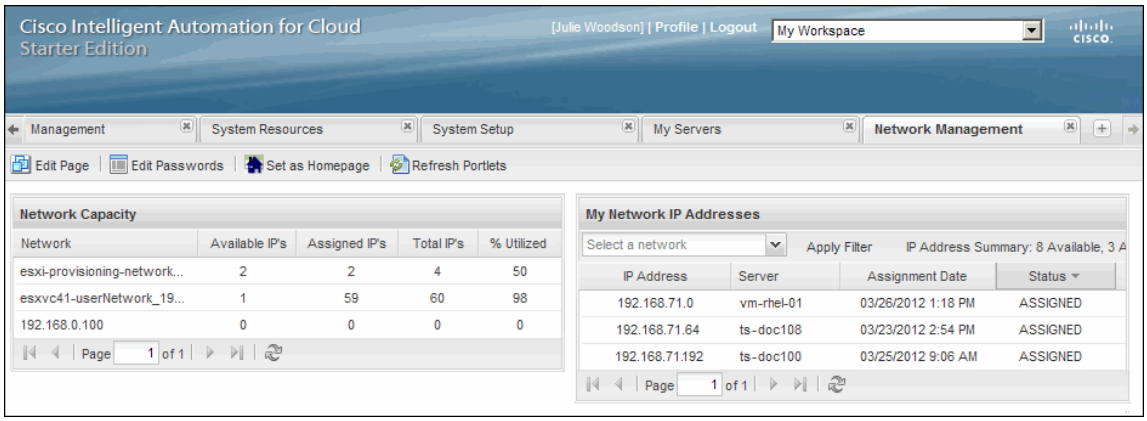
- User Network—Used for deploying virtual machines or physical servers.
- Management Network—Used for management access to cloud servers.
- Community Network—Used by all users from all organizations, without exception. Non-community user networks require explicit organization-level access to be set before users can deploy servers to it, which can be useful for traffic isolation and better security.

View the List of All Networks

To view a list of your networks and IP capacity information for each network, choose **My Workspace** from the module drop-down list and then click the **Network Management** tab.

On the Network Management portal the My Network IP Addresses panel lists your networks. The Network Capacity panel displays capacity information for available, assigned, and utilized IPs.

Figure 2-24 Network Management Portal



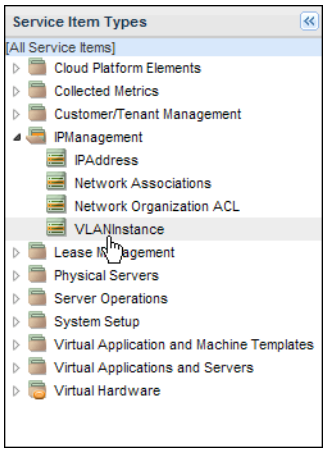
View and Modify Properties of a Network

View and modify some of the settings of a network in the system that may or may not be associated with an organization.

Step 1 Choose **Service Item Manager** from the module drop-down list and then click the **Manage Service Items** tab.

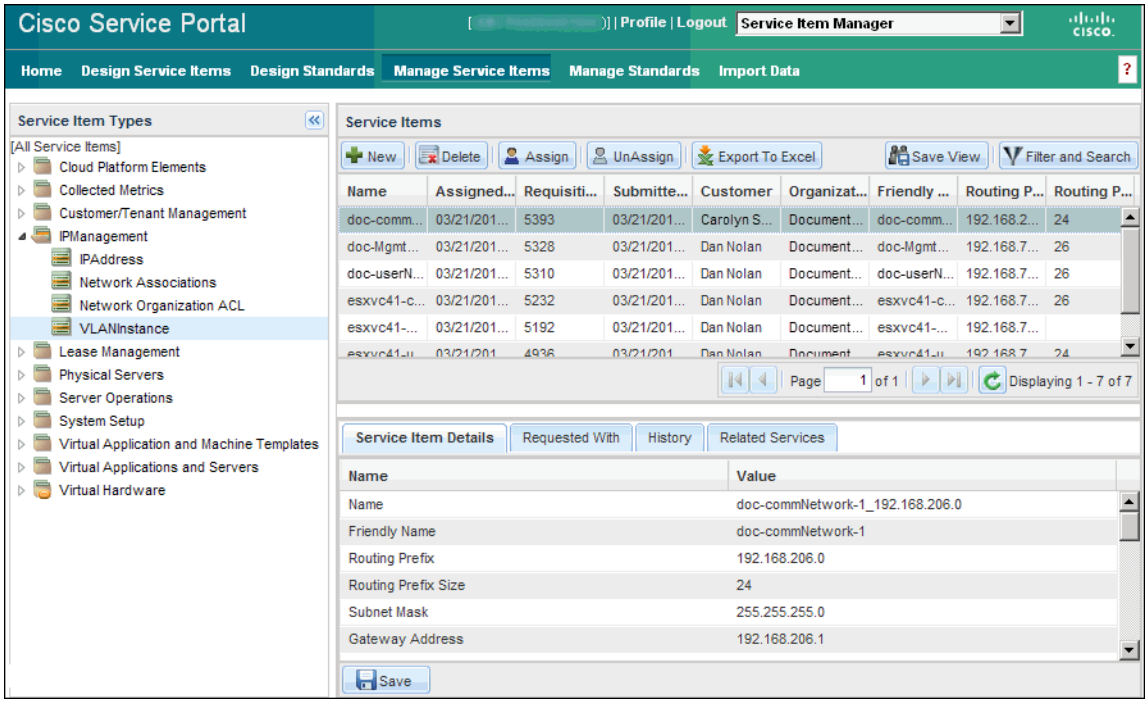
Step 2 On the Manage Service Items portal (Figure 2-10 on page 2-12), expand IP Management in the Service Items Type panel, and then click **VLAN Instance**.

Figure 2-25 Service Item Type—VLANInstance



Step 3 In the Service Items panel, locate and click the network that you want to view or modify. Properties of the network appear in the Service Item Details panel.

Figure 2-26 Service Item Details—VLANInstance



Step 4 To edit a property, click in its field and enter your changes.

Field Name	Action
Friendly Name	Enter the name given to the network that appears on service order forms. **Note** The friendly name *must* be descriptive enough for users easily to identify the network.
UCS Network Description	(*Physical Servers only*) The VLAN name of the blade server that hosts the network. For example: 172.21.45.x (165)
Gateway Address	Enter the address that the network uses to communicate outside the network. This IP address will not be assigned to any server deployed by the system. For example: 192.168.206.1
HSRP1 Address	Enter a new HSRP (Hot Standby Router Protocol) gateway 1 network address. This IP address will not be assigned to any server deployed by the system. For example: 192.168.206.2 *or* Accept the default value.
HSRP2 Address	Enter the HSRP (Hot Standby Router Protocol) gateway 2 network address. This IP address will not be assigned to any server deployed by the system. For example: 192.168.206.3
DNS Address (1)	Enter the primary DNS address for clients in this IP Address Pool. This IP address will not be assigned to any server deployed by the system. For example: 172.25.7.31
DNS Address (2)	Enter the secondary DNS address for clients in this IP Address Pool. This IP address will not be assigned to any server deployed by the system. For example: 172.25.7.32

Step 5 Click **Save**.

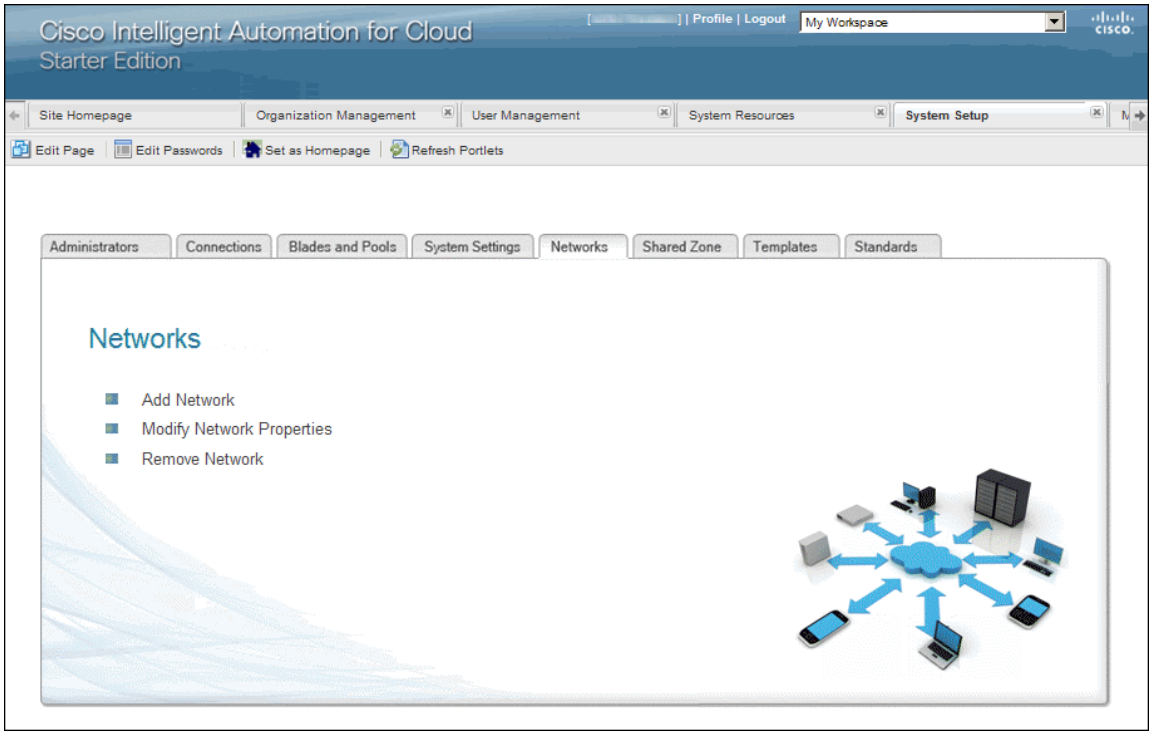
Add a User Network

Define a shared or controlled-access network within the cloud system for bare-metal provisioning or to which users in an organization can deploy servers.

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal, click the **Networks** tab.

Figure 2-27 Networks Portlet



Step 3 Click **Add a Network**.

Step 4 On the Add a Network form, specify the following information:

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Field Name	Action
Network Name	Enter a short network name that will be shown in portal drop-down selection lists.
Subnet Address Specification	Enter the network for this subnet in CIDR notation, for example, 192.0.2.0/24. Enter only an IPv4 type of IP address. **Note** Only /24 subnets are supported.

Field Name	Action
Is this a Community Network?	Ensure that this check box is *unchecked*.
Network Type	Choose **User** from the drop-down list to add a user network.
vCenter Network	Enter the full path of the corresponding vCenter port group. **Note** Port group is the vCenter term for VLAN.
UCS Network	Enter the name of the corresponding UCS VLAN.
Password	Enter the password assigned to the account used to connect to the Server Provisioner server.
Subnet Mask	*Display only.* The subnet mask resulting from the prefix of the UCS network you entered.
Gateway/Address	Use the default gateway network that is populated from the subnet address or enter a different gateway network address (for example, 192.0.2.1). This IP address will not be assigned to any server deployed by the system.
HSRP1Address	Use the default HSRP1 (Hot Standby Router Protocol) gateway network address that is populated from the subnet address or enter a different HSRP1 gateway network address (for example, 192.0.2.2). This IP address will not be assigned to any server deployed by the system.
HSRP2Address	Use the default HSRP2 (Hot Standby Router Protocol) gateway network address that is populated from the subnet address or enter a different HSRP2 gateway network address (for example, 192.0.2.3). This IP address will not be assigned to any server deployed by the system.
Broadcast Address	Use the default broadcast address that is populated from the subnet address or enter a different broadcast network address (for example, 192.0.2.255). This IP address will not be assigned to any server deployed by the system.
Primary DNS Address	Enter the primary DNS address for servers on this network. This IP address will not be assigned to any server deployed by the system.
Secondary DNS Address	Enter the secondary DNS address for servers on this network. This IP address will not be assigned to any server deployed by the system.

Step 5 Click **Submit Order**.

Add a Management Network

Define a network within the cloud system that will be used to manage access to Cloud servers.

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal, click the **Networks** tab to open the portlet (Figure 2-29 on page 2-35).

Step 3 Click **Add a Network** to open the form and specify the following information:

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Field Name	Action
Network Name	Enter a short network name that will be shown in portal drop-down selection lists.
Subnet Address Specification	Enter the network for this subnet in CIDR notation, for example, 192.0.2.0/24. Enter only an IPv4 type of IP address. **Note** Only /24 subnets are supported.
Is this a Community Network?	Ensure that this check box is unchecked.
Network Type	Choose **Management** from the drop-down list to add a management network.
vCenter Network	Enter the full path of the corresponding vCenter VLAN.
UCS Network	Enter the name of the corresponding UCS VLAN.
Password	Enter the password assigned to the account used to connect to the Server Provisioner server.
Subnet Mask	*Display only.* The subnet mask resulting from the prefix of the UCS network you entered.
Gateway/Address	Use the default gateway network that is populated from the subnet address or enter a different gateway network address (for example, 192.0.2.1). This IP address will not be assigned to any server deployed by the system.
HSRP1Address	Use the default HSRP1 (Hot Standby Router Protocol) gateway network address that is populated from the subnet address or enter a different HSRP1 gateway network address (for example, 192.0.2.2). This IP address will not be assigned to any server deployed by the system.
HSRP2Address	Use the default HSRP2 (Hot Standby Router Protocol) gateway network address that is populated from the subnet address or enter a different HSRP2 gateway network address (for example, 192.0.2.3). This IP address will not be assigned to any server deployed by the system.

Field Name	Action
Broadcast Address	Use the default broadcast address that is populated from the subnet address or enter a different broadcast network address (for example, 192.0.2.255). This IP address will not be assigned to any server deployed by the system.
Primary DNS Address	Enter the primary DNS address for servers on this network. This IP address will not be assigned to any server deployed by the system.
Secondary DNS Address	Enter the secondary DNS address for servers on this network. This IP address will not be assigned to any server deployed by the system.

Step 4 Click **Submit Order**.

Add a Community Network

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal, click the **Networks** tab to open the portlet (Figure 2-29 on page 2-35).

Step 3 Click **Add a Network** to open the form, and specify the following information:

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Field Name	Action
Network Name	Enter a short network name that will be shown in portal drop-down selection lists.
Subnet Address Specification	Enter the network for this subnet in CIDR notation, for example, 192.0.2.0/24. Enter only an IPv4 type of IP address. **Note** Only /24 subnets are supported.
Is this a Community Network	Check the **Yes** check box if this is a community network. A community network is available to users from all organizations without exception. Non-community user networks require explicit organization-level access to be set before users can deploy servers to it, which can be useful for traffic isolation and better security.
Network Type	Choose **User** from the drop-down list to add a user network.
vCenter Network	Enter the full path of the corresponding vCenter VLAN.
UCS Network	Enter the name of the corresponding UCS VLAN.
Password	Enter the password assigned to the account used to connect to the Server Provisioner server.
Subnet Mask	*Display only.* The subnet mask resulting from the prefix of the UCS network you entered.
Gateway/Address	Use the default gateway network that is populated from the subnet address or enter a different gateway network address (for example, 192.0.2.1). This IP address will not be assigned to any server deployed by the system.
HSRP1Address	Use the default HSRP1 (Hot Standby Router Protocol) gateway network address that is populated from the subnet address or enter a different HSRP1 gateway network address (for example, 192.0.2.2). This IP address will not be assigned to any server deployed by the system.

Field Name	Action
HSRP2Address	Use the default HSRP2 (Hot Standby Router Protocol) gateway network address that is populated from the subnet address or enter a different HSRP2 gateway network address (for example, 192.0.2.3). This IP address will not be assigned to any server deployed by the system.
Broadcast Address	Use the default broadcast address that is populated from the subnet address or enter a different broadcast network address (for example, 192.0.2.255). This IP address will not be assigned to any server deployed by the system.
Primary DNS Address	Enter the primary DNS address for servers on this network. This IP address will not be assigned to any server deployed by the system.
Secondary DNS Address	Enter the secondary DNS address for servers on this network. This IP address will not be assigned to any server deployed by the system.

Step 4 Click **Submit Order**.

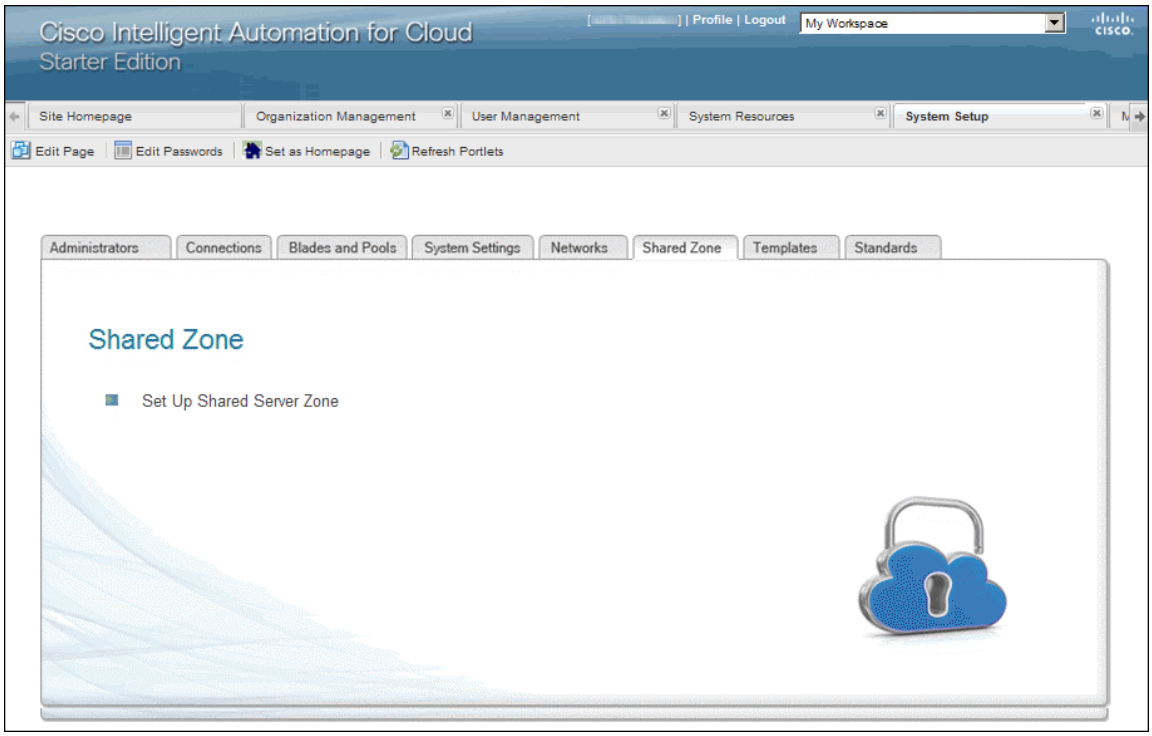
Set Up the Shared Provider Zone

Define the attributes for the data center zone, which includes provisioning networks and the vCenter datacenter, in which all Cloud servers are deployed.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

Step 2 On the System Setup portal click **Shared Zone**.

Figure 2-28 Shared Zone Portlet



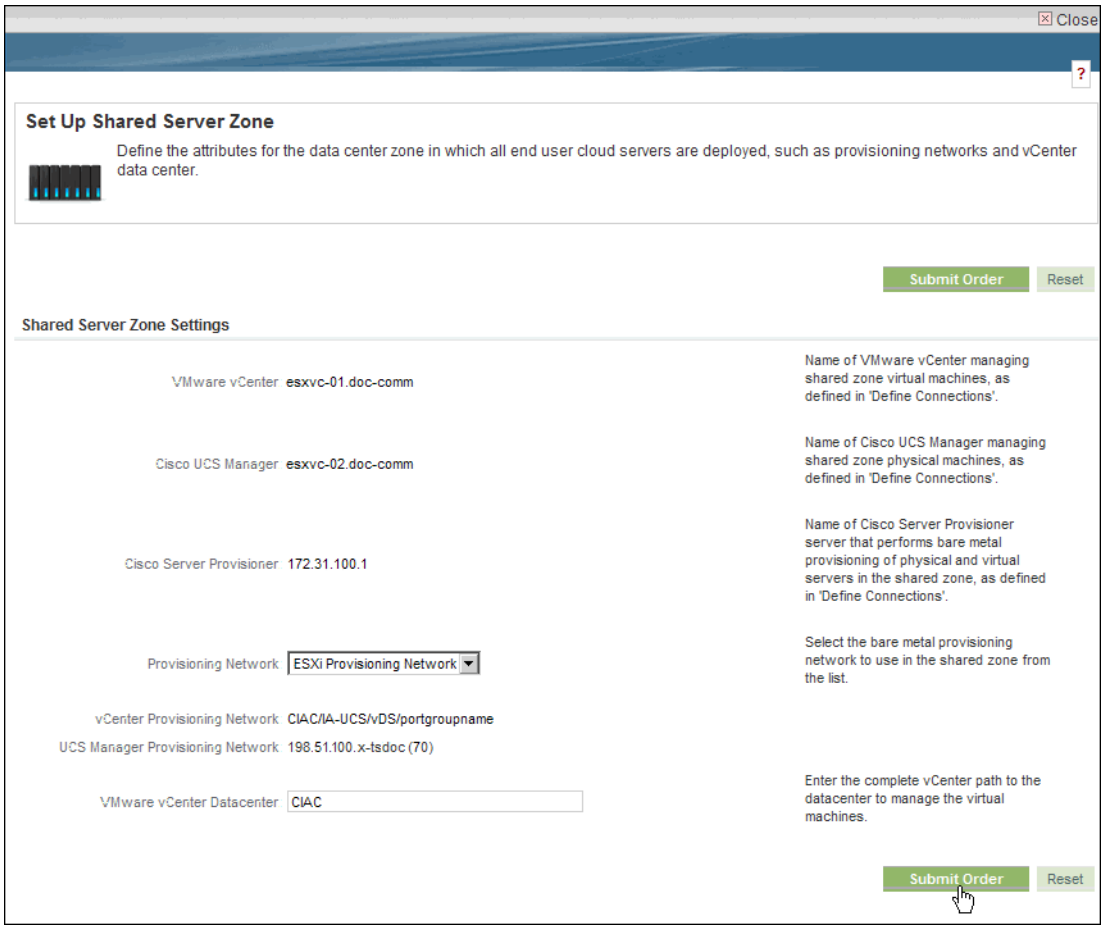
Step 3 On the Shared Zone portlet, click **Set Up Shared Server Zone**.

Current settings for the shared zone (*display only*) appear in the Managing Cloud Elements area.

Step 4 On the Set Up Shared Server Zone form, choose a network from the New Provisioning Network drop-down list.

Step 5 In the VMware vCenter Datacenter field, edit the vCenter path.

Figure 2-29 Set Up Shared Zone Form



Step 6 Click **Submit Order**.

Delete a Network from the Cloud System

Permanently remove a network.

Note Before you can remove a network, you must first remove any IP address assignments associated with the network.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

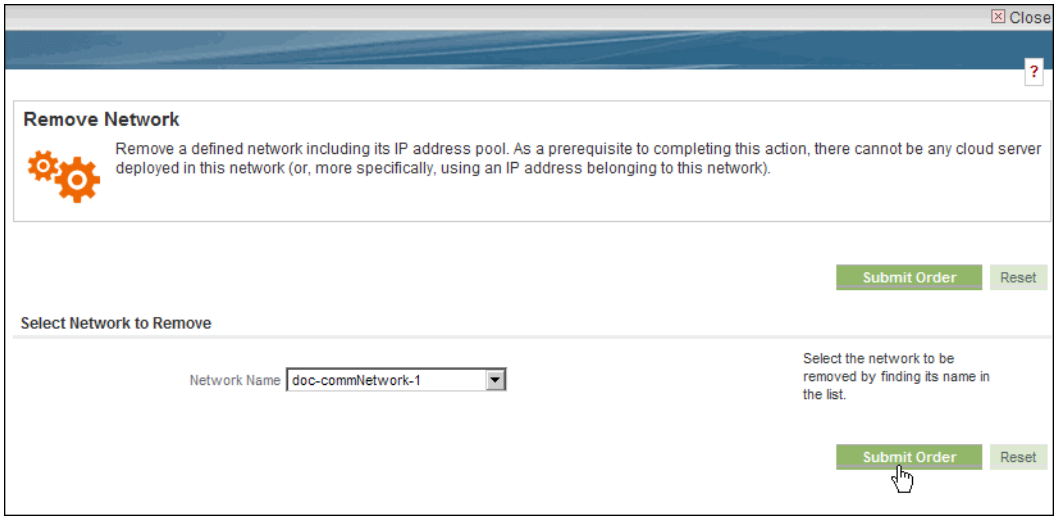
Step 2 On the System Setup portal click the **Networks** tab.

Step 3 In the Networks portlet (Figure 2-27 on page 2-27), click **Remove Network**.

Step 4 On the Remove Network form, choose the network from the drop-down list.

If the network has IP addresses associated with it, an alert will inform you, and you cannot proceed with the deletion.

Figure 2-30 Remove Network Form



Step 5 Click **Submit Order**.

Manage IP Address Exclusions

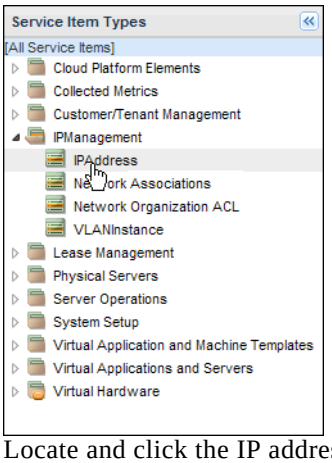
Add or remove a usage exclusion for an IP address.

When an IP address in excluded, it is unavailable or off-limits for automated allocation. For example, an exclusion allows you to set aside a contiguous IP for a future use or allocate an IP address for a resource outside the Cloud portal.

Step 1 Choose **Service Item Manager** from the module drop-down list and then click the **Manage Service Items** tab.

Step 2 On the Manage Service Items portal (Figure 2-10 on page 2-12), expand IP Management in the Service Items Type panel, and then click **IPAddress**.

Figure 2-31 Service Item Type—IPAddress

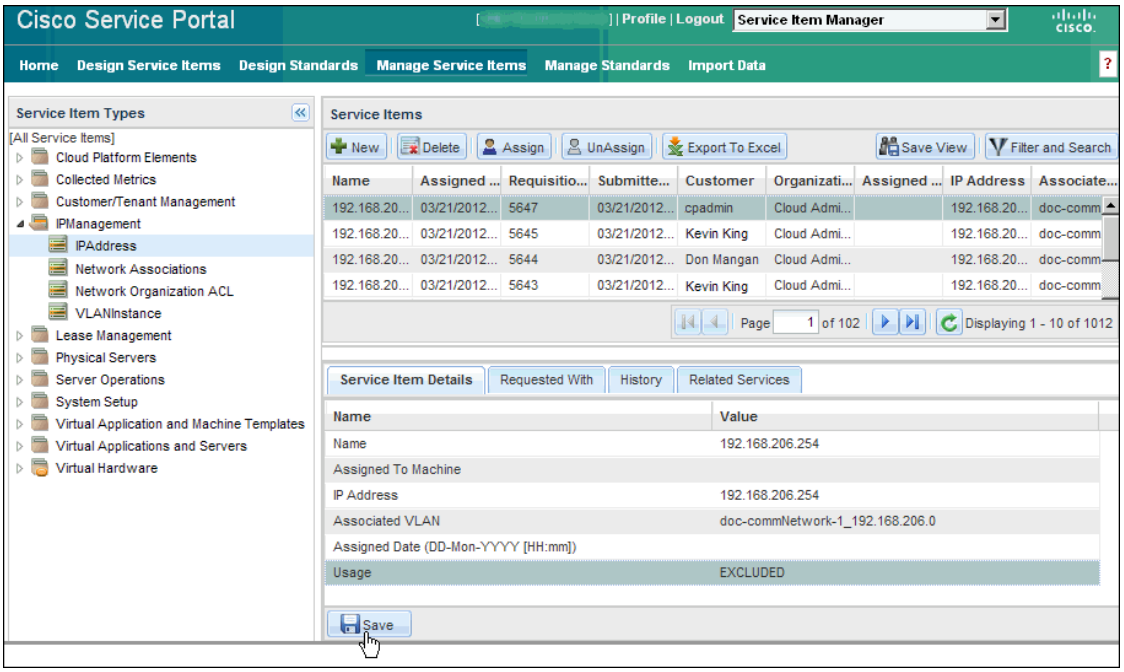


Step 3 Locate and click the IP address in the Service Items table.

Step 4 Click in the Usage field and change the value to one of the following values:

- EXCLUDED—Apply the exclusion
- UNASSIGNED—Remove an existing exclusion

Figure 2-32 IP Address—Exclusion



Step 5 Click **Save**.

Managing Server Templates

Starter Edition provides the following types of server templates that users can select when they order servers.

- Virtual machine (VM) template
- Operating system (from Cisco Server Provisioner)
- UCS service profile template

After registering, the template is then uniformly available to all users.

Register a Virtual Machine Template

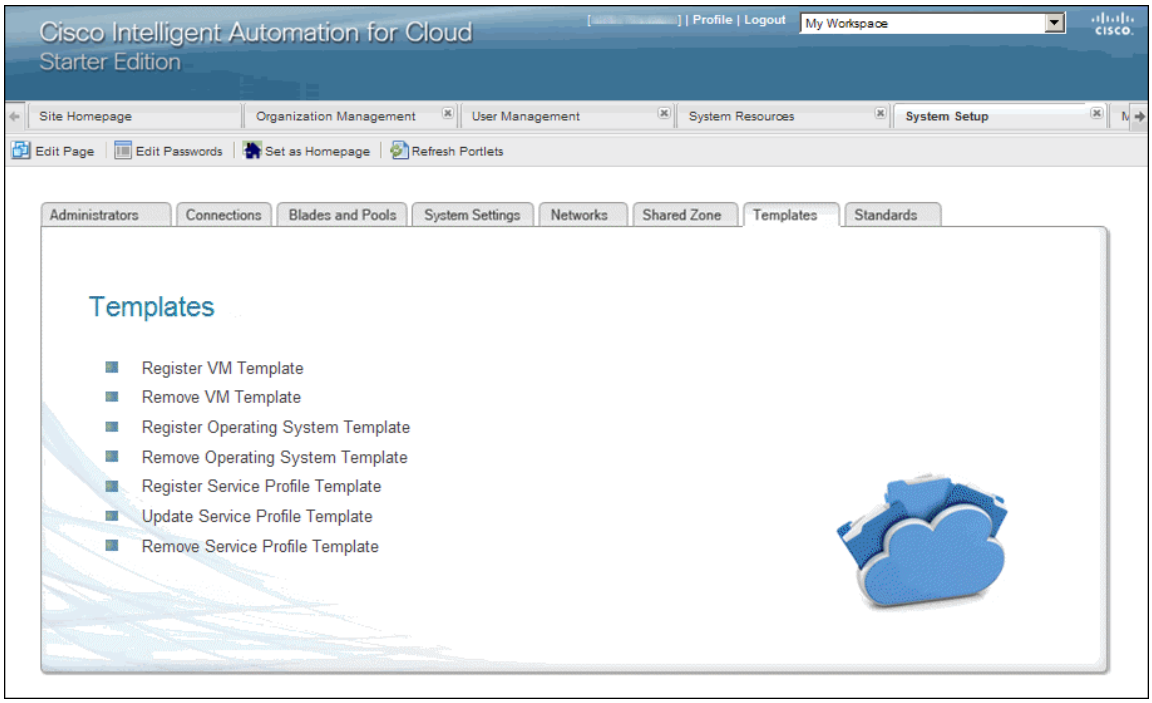
Register an existing virtual machine template in the cloud system for users to select when ordering virtual machines.

Note Before you can register a template, it must first be defined in vCenter.

Step 1 Choose **My Workspace** from the module drop-down list and then click **System Setup**.

Step 2 On the System Setup portal click **Register VM Template**.

Figure 2-33 Templates Portlet

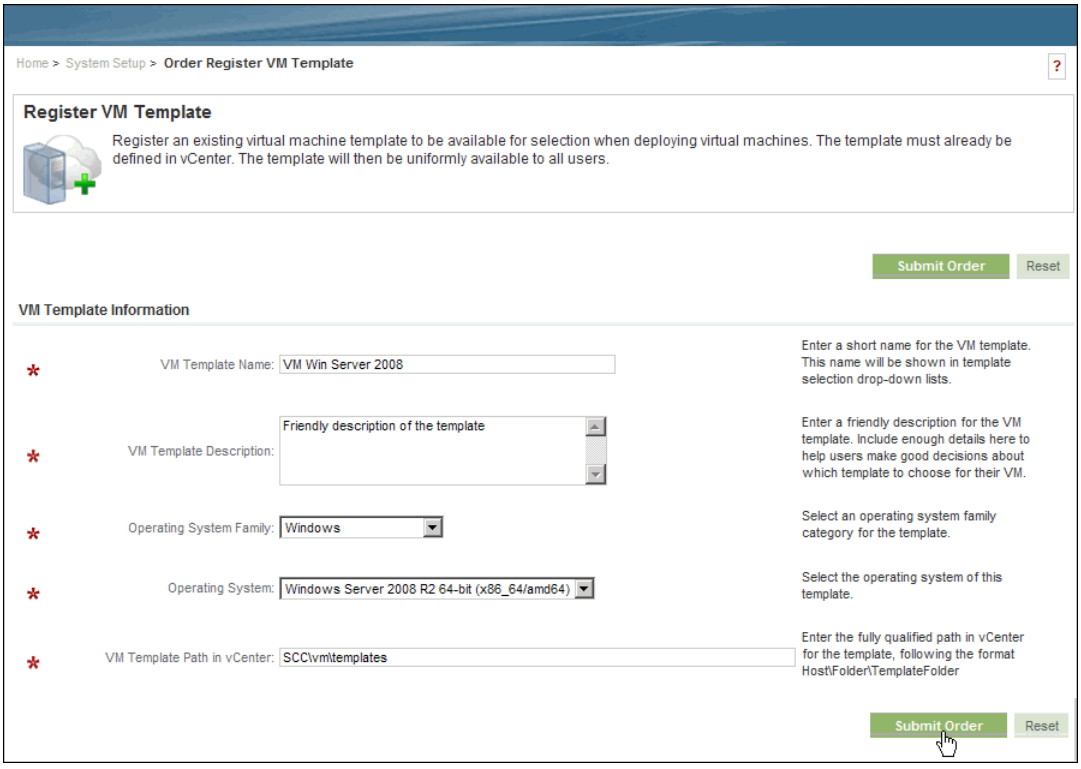


Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 3 On the Register VM Template form, provide the following information:

Field	Action
VM Template Name	Enter a friendly name for the virtual machine template. **Note** The VM template name *must* be descriptive enough for users easily to identify the template.
VM Template Description	Enter a friendly description for the virtual machine template that will help users decide what template to use when ordering virtual machines.
Operating System Family	Choose the family of the operating system that will be installed when ordering a server from the template.
Operating System	Choose the operating system to be installed when ordering a server from the template.
VM Template Path in vCenter	Enter the fully qualified path in vCenter for the template, using the following format: Host/Folder/TemplateFolder

Figure 2-34 Register VM Template Form



Step 4 Click **Submit Order**.

Remove a Virtual Machine Template

Remove a registered virtual machine from the record so that it is not available for selection by a user when ordering a virtual machine.

Note For information on registering a virtual machine template, see Register a Virtual Machine Template, page 2-37.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

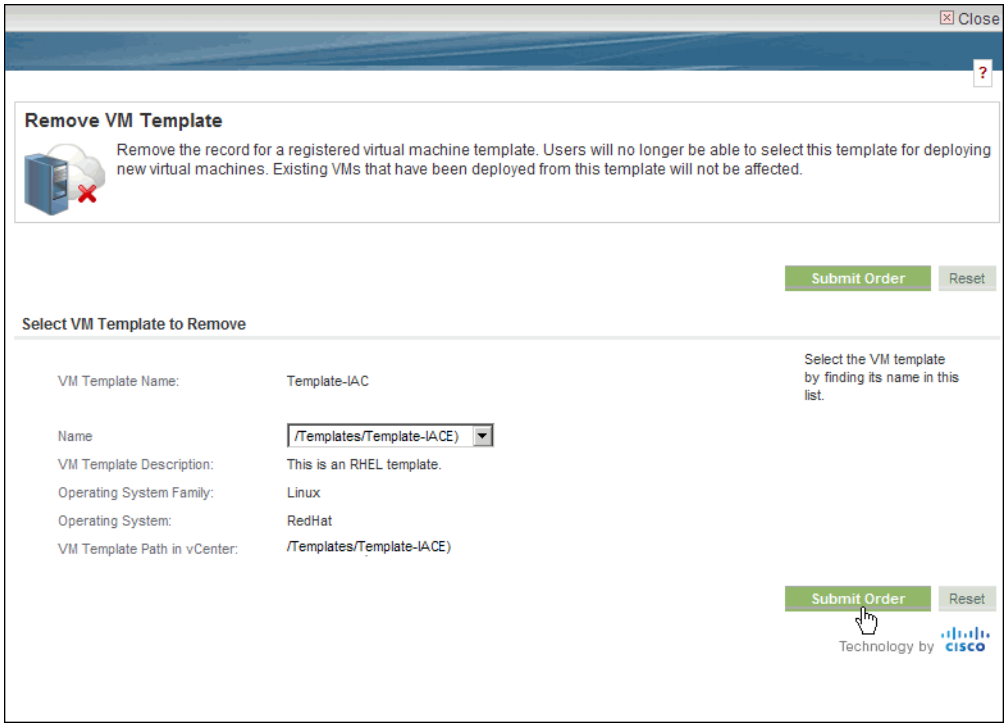
Step 2 On the System Setup portal click the **Templates** tab.

Step 3 On the Templates portlet (Figure 2-33 on page 2-37), click **Remove VM Template**.

Step 4 Choose the template that you want to remove from the VM Template Name drop-down list.

The name, description, operating system information, and full path of the template appear under the VM Template Name drop-down list.

Figure 2-35 Remove VM Template Form



Step 5 Review the information to confirm that the selected template is the one that you want to remove, and then click **Submit Order**.

Register an Operating System Template

Register an existing operating system template in the cloud system for users to select when ordering servers.

Note Before you can register a template, it must first be defined in Cisco Server Provisioner.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

Step 2 On the System Setup portal click the **Templates** tab.

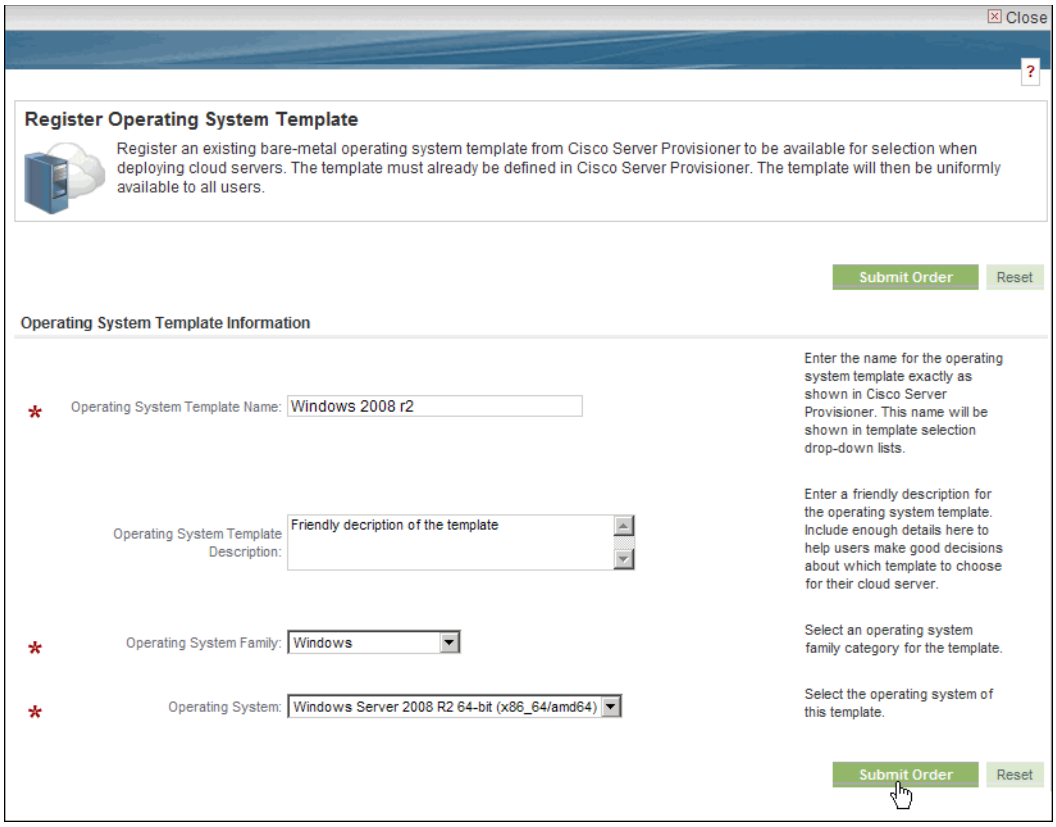
Step 3 On the Templates portlet (Figure 2-33 on page 2-37), click **Register Operating System Template**.

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 4 On the Register Operating System Template form, provide the following information:

Field	Action
Operating System Template Name	Enter a friendly name for the operating system template that users can choose in a template drop-down list when ordering servers.
Operating System Template Description	Enter a friendly description for the operating system template that will help users decide what template to use when ordering servers.
Operating System Family	Choose the family of the operating system that will be installed when ordering a server from the template.
Operating System	Choose the operating system to be installed when ordering a server from the template.

Figure 2-36 Register Operating System Template Form



Step 5 Click **Submit Order**.

Remove an Operating System Template

Remove an operating system template from the record so that it is not available for selection by a user when ordering a virtual machine or physical server.

Note To register an operating system template, see Register an Operating System Template, page 2-40.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

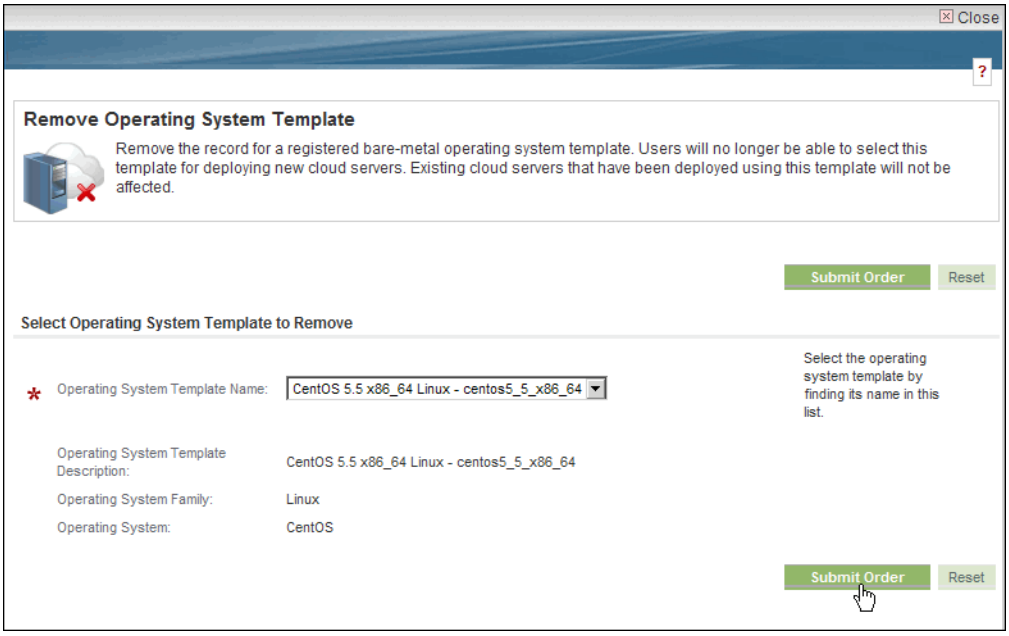
Step 2 On the System Setup portal click the **Templates** tab.

Step 3 On the Templates portlet (Figure 2-33 on page 2-37), click **Remove Operating System Template**.

Step 4 On the Remove Operating System Template form, choose the name of the operating system template that you want to remove drop-down list.

The name, description, operating system family, and operating system appear below the drop-down list.

Figure 2-37 Remove OS Template Form



Step 5 Review the information to confirm that the selected operating system template is the one that you want to remove, and then click **Submit Order**.

Register a UCS Service Profile Template

Register an existing UCS service profile template in the cloud system for users to select when ordering physical servers.

Note Before you can register a template, it must first be defined in UCS Manager.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

Step 2 On the System Setup portal, click the **Templates** tab.

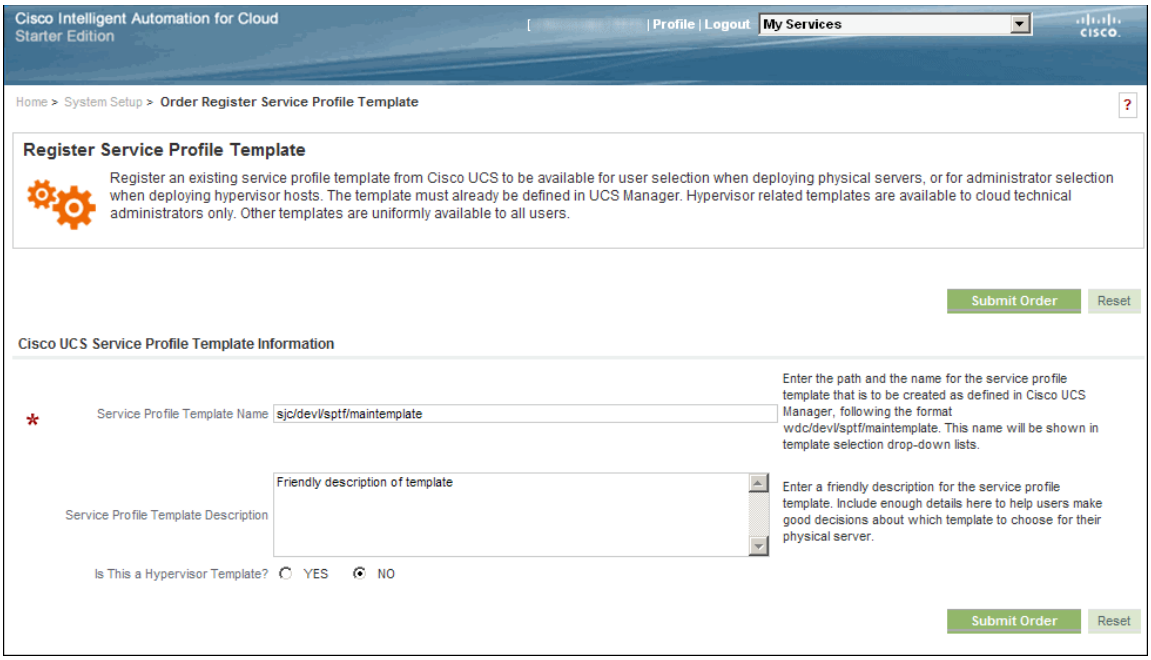
Step 3 On the Templates portlet (Figure 2-33 on page 2-37), click **Register Service Profile Template**.

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 4 On the Register Service Profile Template form, provide the following information:

Field	Action
Service Profile Template Name	Enter *the path and the name* for the new template as defined in Cisco UCS Manager, using the following format: wdc/devl/sptf/maintemplate This name will appear in drop-down lists for users to select when ordering servers.
Service Profile Template Description	*Optional.* Enter a friendly description for the UCS service profile template that will help users decide what template to use when ordering servers.
Is This a Hypervisor Template?	Click the **YES** or **NO** radio button. **Note** Hypervisor-related templates are available only to Cloud Provider Technical Administrators.

Figure 2-38 Register Service Profile Template Form



Step 5 Click **Submit Order**.

Update a UCS Service Profile Template

Update or modify the description, hypervisor, cluster path, VLAN, and service console VLAN of a registered UCS service profile template in the cloud system.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

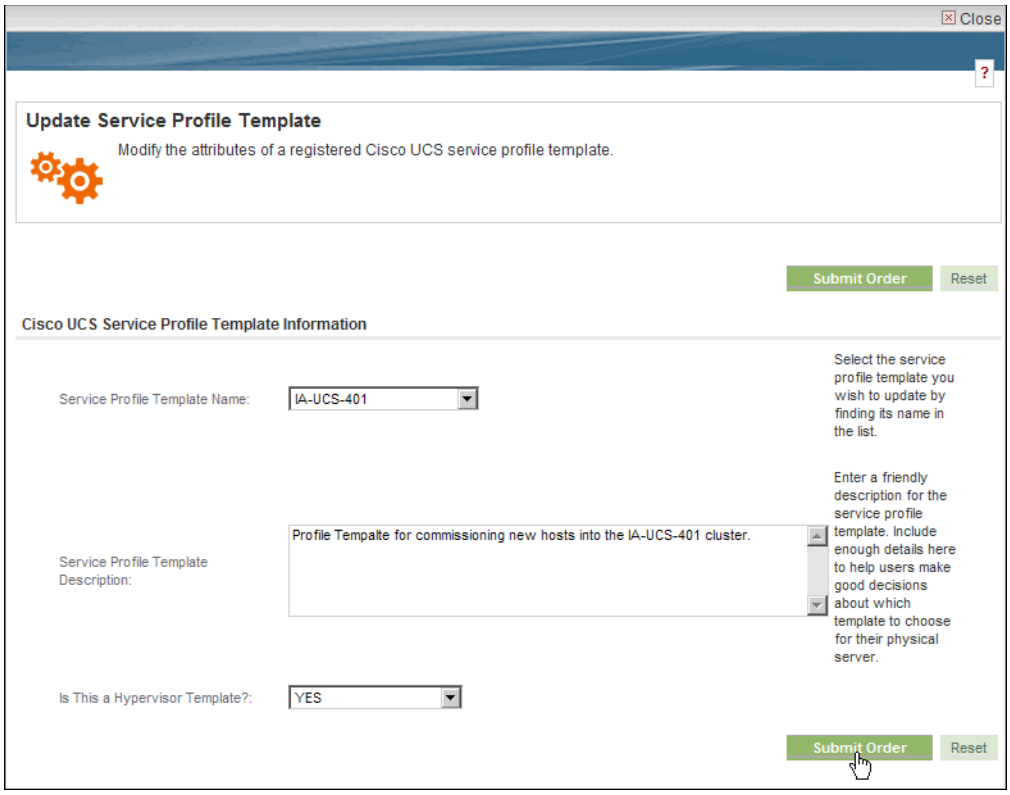
Step 2 On the System Setup portal, click the **Templates** tab.

Step 3 On the Templates portlet (Figure 2-33 on page 2-37), click **Update Service Profile Template**.

Step 4 On the Update Service Profile Template form, choose the service profile template that you want to modify from the Service Profile Template drop-down list.

The description, hypervisor template designation (YES/NO), and vCenter cluster full path automatically populate with current settings.

Figure 2-39 Update Service Profile Template Form



Step 5 Make your modifications in any or all of the fields, and then click **Submit Order**.

Remove a UCS Service Profile Template

Remove a registered UCS service profile template from the system to modify the available selection for users ordering physical servers.

To register a UCS service profile template, see Register a UCS Service Profile Template, page 2-43.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

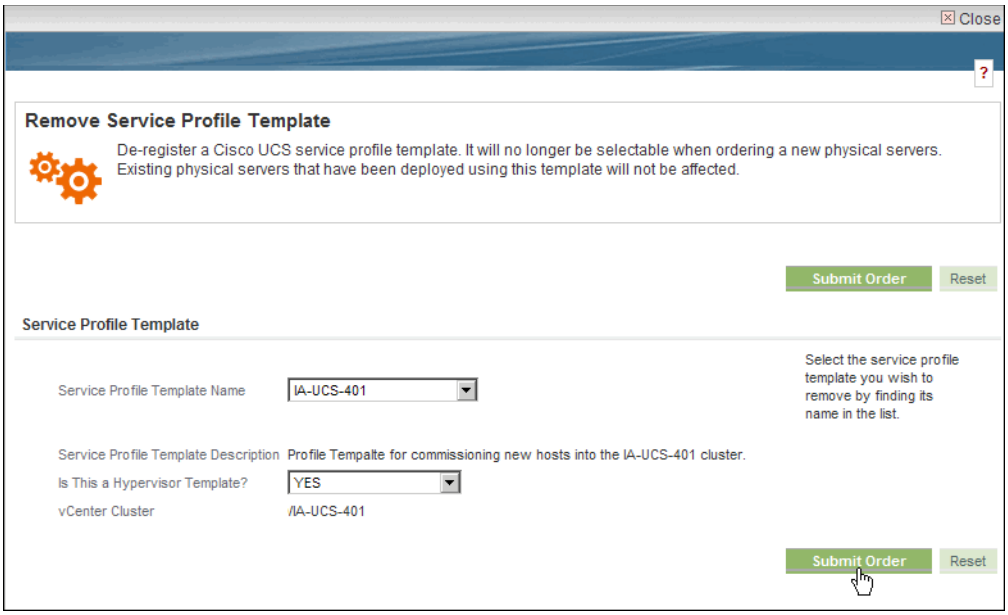
Step 2 On the System Setup portal click the **Templates** tab.

Step 3 On the Templates portlet (Figure 2-33 on page 2-37), click **Remove Service Profile Template**.

Step 4 On the Remove Service Profile Template form, choose the service profile template that you want to remove from the Service Profile Template Name drop-down list.

The name, hypervisor template designation (YES/NO), and vCenter cluster name appear under the Service Profile Template Name drop-down list.

Figure 2-40 Remove Service Profile Template Form



Step 5 Review the information to confirm that the selected template is the one that you want to remove, and then click **Submit Order**.

Modifying a Default Email Notification Template

Note To view and configure email notification templates, you must have Cloud Provider Technical Administrator permissions

Starter Edition includes a set of default email notification templates that you customize for an organization. The cloud system sends the email notifications in response to events such as orders and system errors.

It is recommended that you configure the email notification templates with the relevant sender and recipient addresses before you start ordering the services described in this chapter so you can verify that your additions and configurations are successful.

Starter Edition provides the following default email notifications:

Table 2-2 Starter Edition Default Email Notification Templates

Template Name	Recipient	Purpose
Add Role Completion Notification	Administrator who adds a role	Administrator is notified that the order to add a role has been completed.
Ad-Hoc Task Started		
Connect Cloud Platform Elements Completed Email		
CPO Error Notification Physical Server	Service team member	Service team member is notified that an error has occurred on an order for a physical server.
CPO Error Notification VM	Service team member	Service team member is notified that an error has occurred on an order for a virtual machine.
Default late activity		
Failure to Create Network		
Failure to Create Target Notification	User who orders a service	User is notified that the order has been canceled due to a failure to create the desired target.
Lease Expiration - First Warning		
Lease Expiration - Second Warning		
Notification System Error in Service Request		
Order VM from Template Completion Notification	User who orders a virtual machine from template	User is notified that the order for virtual machine from template has been completed.
Process escalation		
Remove Role Completion Notification	Administrator who removes a role	Administrator is notified that the order to remove a role has been completed.
Service Canceled Email		
Service Canceled Notification	User who orders a service	User is notified that the order has been canceled.
Service Complete Email	User who orders a service	User is notified that the order has been completed.
Service Complete Notification		

Table 2-2 Starter Edition Default Email Notification Templates (continued)

Template Name	Recipient	Purpose
Service Confirmation Customer Acknowledgement	User who orders a service	User is notified that the order was received and has been forwarded to the service team for processing.
Service Link Error on External Task	Service team member	Service team member is notified that an error has occurred on a task outside the cloud system, and directs the recipient to consult log files to investigate the error.
Service Rejected Notification	User who orders a service	User is notified that the order has been rejected.
Service Started Email		
Task Fulfillment Escalation Notification	Service team member	Service team member is notified that an assigned task is overdue, and directs the recipient to take action immediately.
Task Fulfillment Pending Notification	User who orders a service	User is notified that further action is needed before the service order can be fulfilled.
Tenant Management Complete Notification		

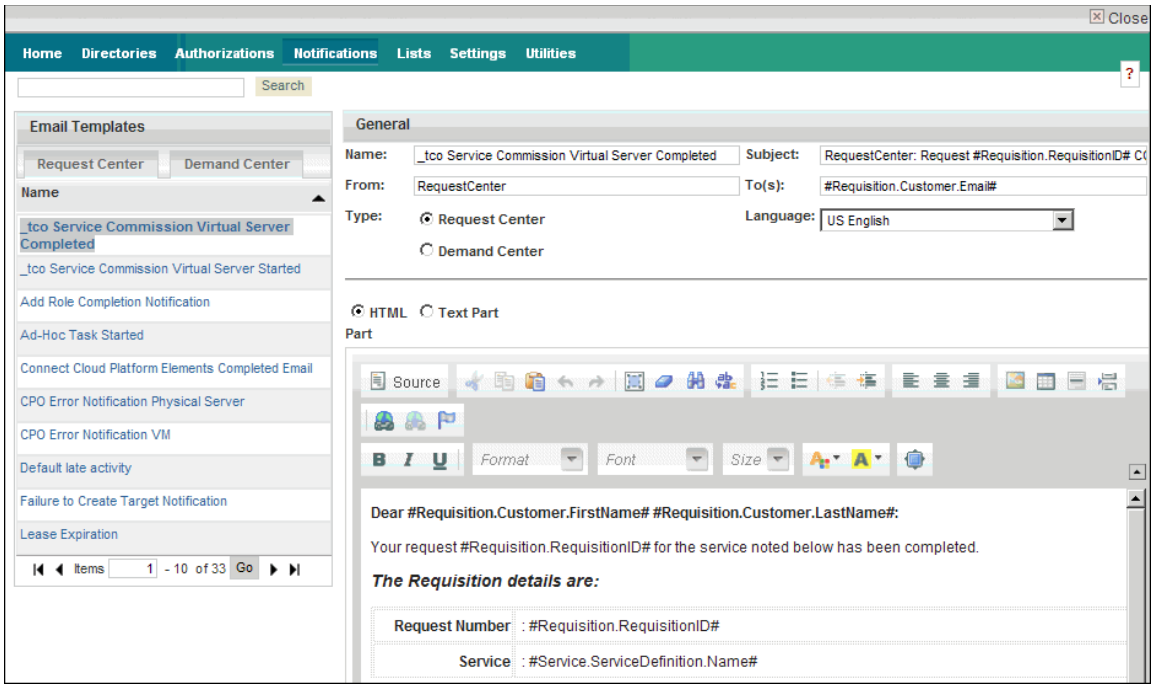
To modify the default email notification templates, perform the following steps.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **System Setup** tab.

Step 2 On the System Setup portal click the **System Setup** tab.

Step 3 In the System Settings portlet, click **Modify Email Templates**.

Figure 2-41 Notifications Portal



Step 4 On the Request Center tab in the Email Templates panel, click the name of the email notification template that you want to modify.

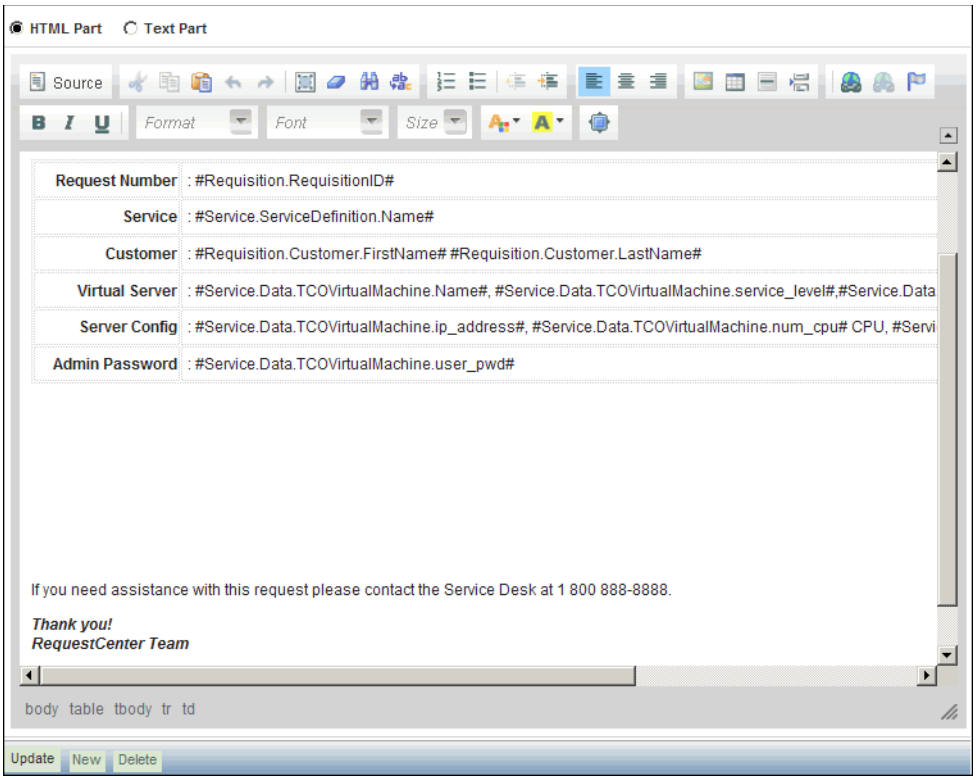
Step 5 Modify any or all of the following attributes:

Field Name	Action
Name	Enter the name of the template.
Subject	Enter The subject of the notification.
From	Enter a valid address to use as the sender.
To(s)	Enter one or more valid recipient email addresses. For multiple recipients, separate email addresses using semi-colons. **Note** You can use namespace variables in this field. For information on using namespaces, *see* the *Cisco Service Portal Namespace Users Guide*.
Language	Leave as is. In the current release, only US English is supported; any language selection you make will be ignored.
Type	Click of the **Request Center** radio button.

Step 6 Click the **HTML Part** or **Text Part** radio button to select the email format.

Step 7 In the editing panel, add any optional content.

Figure 2-42 Notification Template—Editing Panel



Step 8 Click **Update**.

Managing Authorization and Review Escalation

Note You must be a Cloud Provider Technical Administrator to set up and modify authorizations.

An escalation is a sequence of tasks requiring action from an assigned person. The tasks are listed in Service Manager for the person to view and take action.

An authorization task requires the assigned authorizer to reject or approve a service request. Authorization sequences are configurable for the following organizations:

- Finance
- Departments
- Service groups

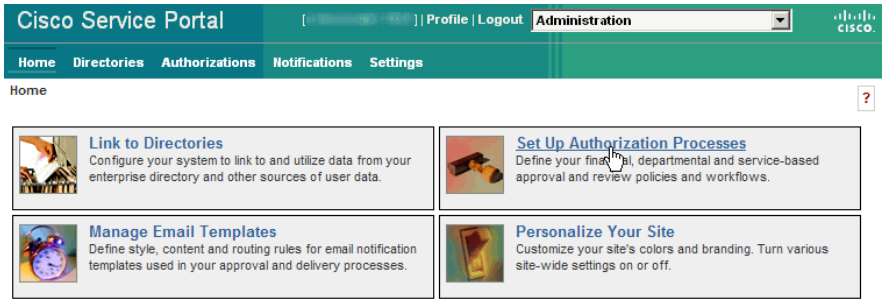
A review task requires the assigned reviewer to sign off on a step in the delivery process. Review sequences are configurable for the following organizations:

- Departments
- Service groups

Enable an Authorization or Review

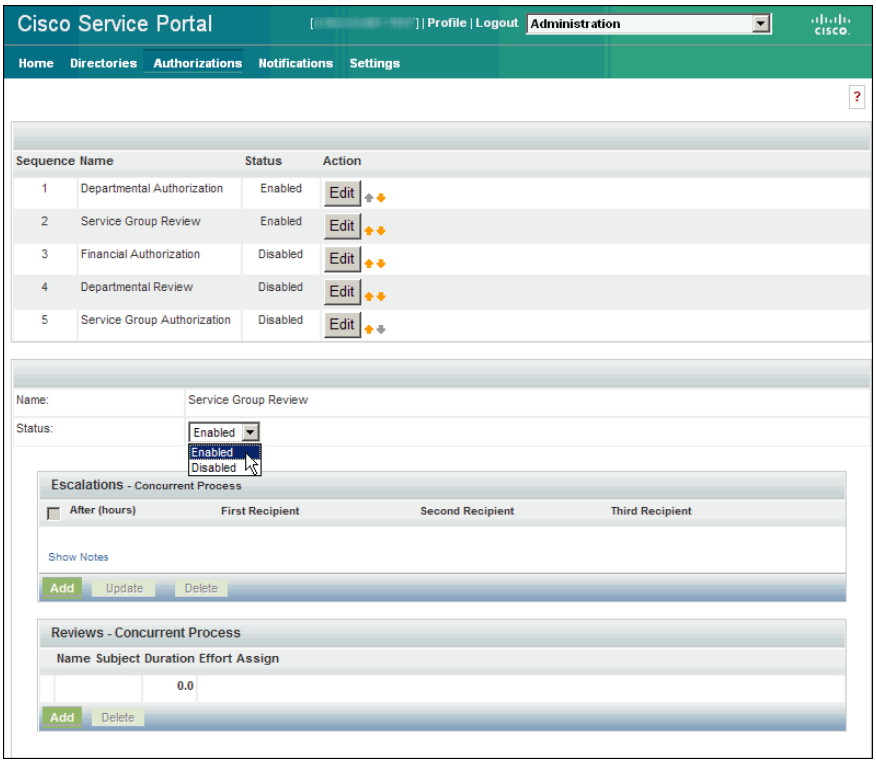
Step 1 Choose **Administration** from the module drop-down list and then click **Set Up Authorization Process**.

Figure 2-43 Administration—Set Up Authorization Processes



Step 2 Click **Edit** beside the name of the group that you want to enable.

Figure 2-44 Enabling Authorizations and Reviews



Step 3 Choose **Enabled** from the Status drop-down list.

Set Up Escalation Sequences

An escalation sequence is a series notifications triggered when a task remains incomplete within specified time limits. When a task has not been completed within the specified time, the cloud system sends an email notification to the assigned person, supervisor, and/or customer for resolution. If the task remains incomplete after the first notification, the process is repeated for the next tier.

For authorizations, you can specify different notification recipients for each tier in the escalation. For reviews, all identified recipients receive notifications for each tier.

You can configure one or more tiers.

Step 1 Follow the steps outlined in Enable an Authorization or Review, page 2-51.

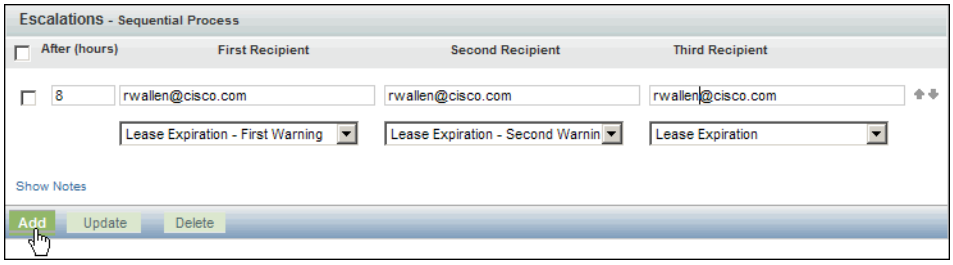
Step 2 Click **Edit** beside an authorization group in the list.

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 3 In the Escalations panel, click **Add**, and then provide the following information:

Field Name	Action
After (hours)	Enter the number of hours to elapse between escalations. For example, if this value is 8, then a notification will be sent every 8 hours until the task is resolved. **Note** This value does not represent the number of hours after the due date that the first tier in the escalation is executed.
First Recipient Second Recipient Third Recipient	Enter up to three valid email addresses, separated by commas, of the persons who will receive notifications during escalation. You can also use namespace variables. For information on using namespaces, *see* the *Cisco Service Portal Namespace Users Guide*. You can configure as many tiers as needed. To add more tiers, click **Add**, and repeat this step for adding recipients and templates.
Email notification template	For each recipient, choose an email template to use for the notification from the drop-down list. To modify an email notification template, see Modifying a Default Email Notification Template, page 2-47.

Figure 2-45 Adding an Escalation Sequence



CHAPTER 3

Managing Organizations and Users

Before users can start ordering Cloud services, you must set up the environment so that they have the basic tools they will need.

Note If directory authorization has been enabled for your Cloud environment, then you may not be able to add, modify, or remove users and organizations, or assign roles, from Cloud Portal. Directory integration can be configured so that user accounts must be created from the directory, where user roles are also assigned; in this case, any changes you make to an organization using Cloud Portal will be overwritten by the directory. For information on whether this affects a task you want to perform, see the section for the task in this chapter.

This chapter guides you through adding, configuring, and removing organizations user. It includes the following sections:

Managing Organizations

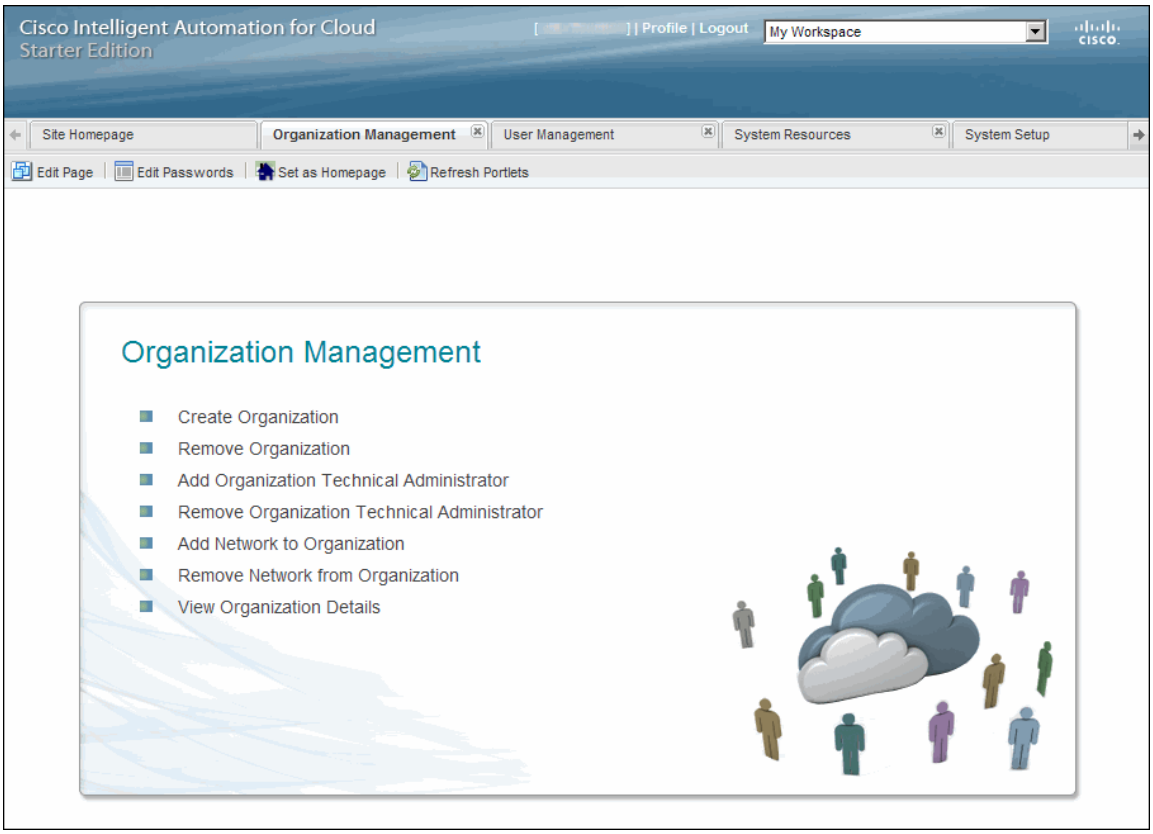
Manage the user, management, and community networks within the cloud system that allow users to deploy cloud servers.

View Properties of an Organization

View details of an organization, such as number of users and lists of organization administrators and accessible networks/VLANs.

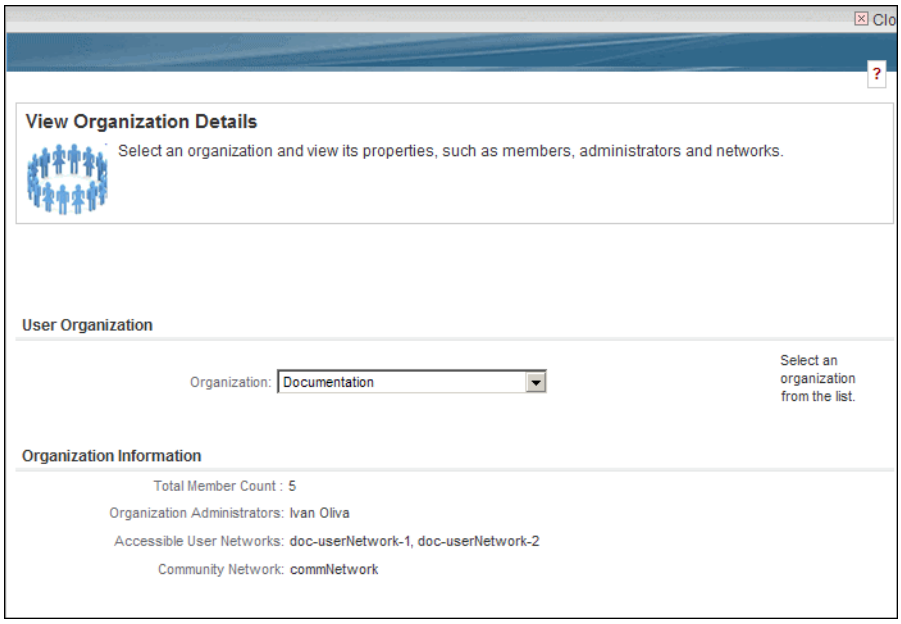
Step 1 Choose **My Workspace** from the module drop-down list and then click the **Organization Management** tab.

Figure 3-1 Organization Management Portal



Step 2 On the Organization Management portal click **View Organization Details**.

Figure 3-2 View Organization Details Form



Step 3 On the View Organization Details form, choose the organization from the drop-down list.

Number of members, designated Organization Technical Administrators, friendly name, associated user networks, and community network information appear below the Select organization name drop-down list.

Create an Organization

Define a new organization of Cloud users.

Note If directory authorization has been enabled for your Cloud environment, then you may not be able to create a new organization from Cloud Portal. Directory integration can be configured so that organizations must be created from the directory. In this case, any changes you make to an organization using Cloud Portal will be overwritten by the directory.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **Organization Management** tab.

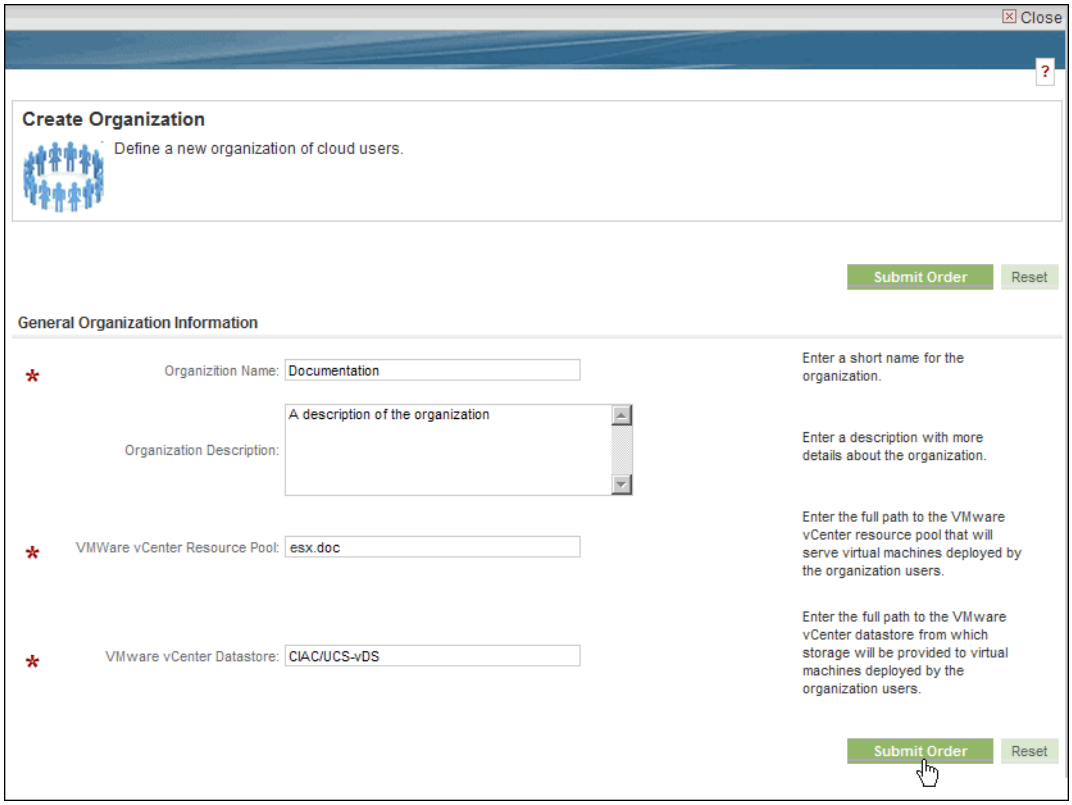
Step 2 On the Organization Management portal (Figure 3-1 on page 3-2), click **Create Organization**.

Step 3 On the Create Organization form, enter the following information.

Note Fields marked with asterisks are required.

Field	Action
Organization Name	Enter a descriptive name for the organization.
Organization Description	*Optional.* Enter any relevant information about the organization that a user with organization management permissions would need to know.
VMware vCenter Resource Pool	Enter the full path to the resource pool that will manage the virtual machines for the organization.
VMware vCenter Datastore	Enter the full path to the VMware vCenter datastore that will store the virtual machines deployed by users in the organization.

Figure 3-3 Create Organization Form



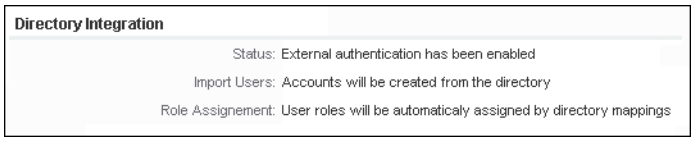
Step 4 Click **Submit Order**.

Add an Organization Technical Administrator

Assign the role of Organization Technical Administrator to a person in an organization.

Note If the information shown in Figure 3-4 appears on the Add Organization Technical Administrator form, it is strongly recommended that you do not proceed with the Add Organization Technical Administrator service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

Figure 3-4 Directory Authorization Notation



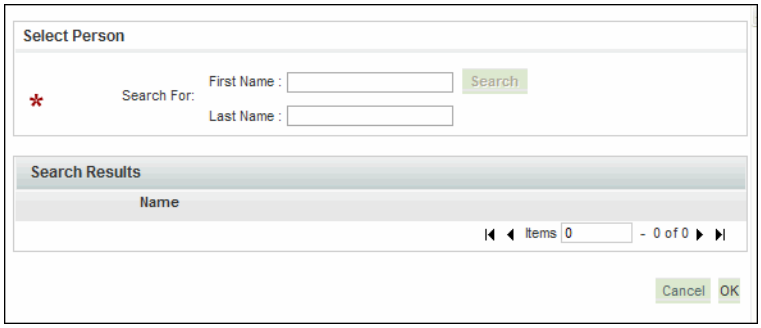
Step 1 Choose **My Workspace** from the module drop-down list and then click the **Organization Management** tab.

Step 2 On the Organization Management portal (Figure 3-1 on page 3-2), click **Add Organization Technical Administrator**.

Step 3 On the Add Organization Technical Administrator form, choose the organization from the drop-down list.

Step 4 In the Select User field, click **Select** to open the Select Person dialog box.

Figure 3-5 Select Person Dialog Box

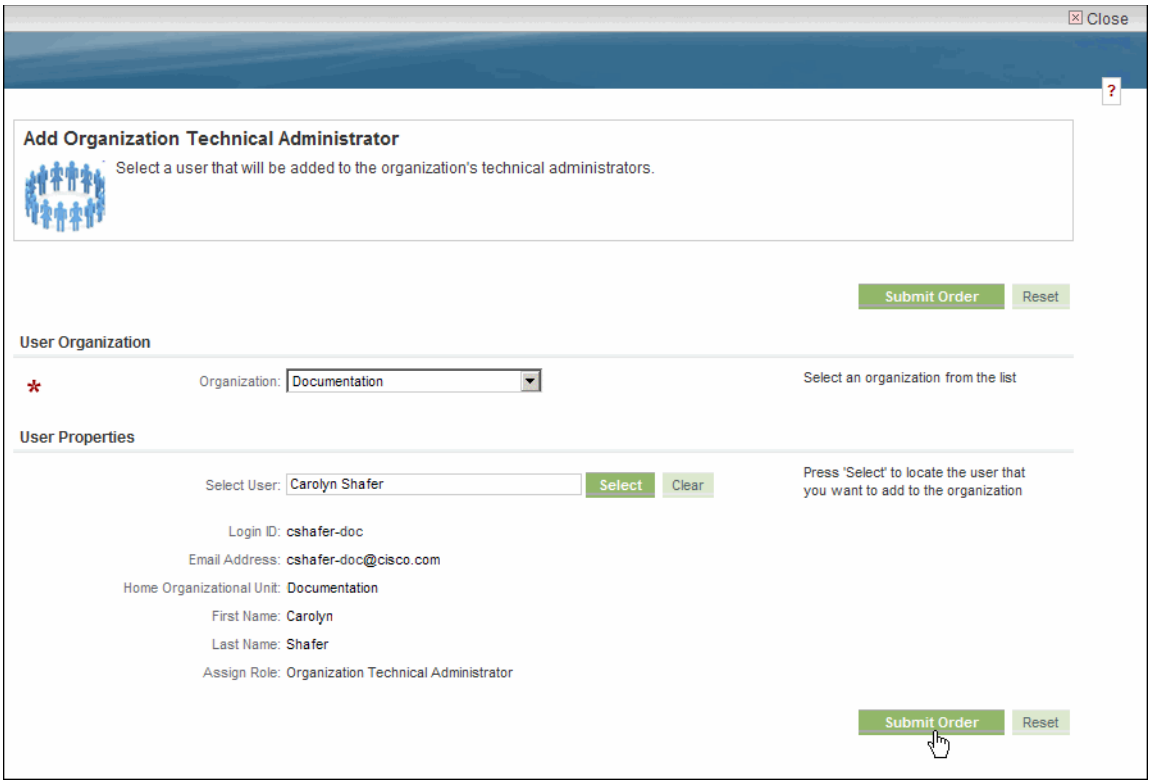


Step 5 Enter the First Name or Last Name of the user, or enter a wildcard *, and click **Search** to find the user.

Step 6 In the Search Results area, click the radio button next to the name of the user whom you want to add as an Organization Technical Administrator, and then click **OK**.

The User Properties for the selected user display on the form.

Figure 3-6 Add Organization Technical Administrator Form



Step 7 Click **Submit Order**.

Remove an Organization Technical Administrator

Remove the Organization Technical Administrator role from a user in an organization without deleting the user.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **Organization Management** tab.

Step 2 On the Organization Management portal (Figure 3-1 on page 3-2), click **Remove Organization Technical Administrator**.

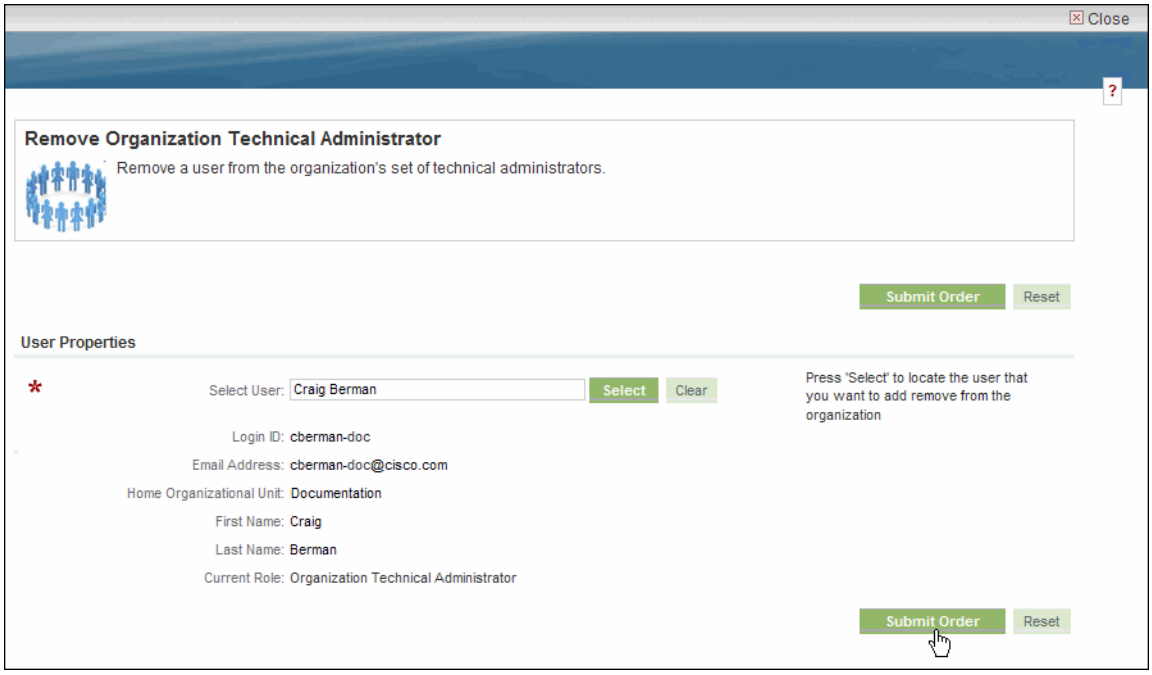
Step 3 In the Select User field, click **Select** to open the Select Person dialog box (Figure 3-5 on page 3-5).

Step 4 Enter the First Name or Last Name of the user, or enter a wildcard *****, and click **Search** to find the user.

Step 5 In the Search Results area, click the radio button next to the name of the user whom you want to remove as an Organization Technical Administrator, and then click **OK**.

The User Properties for the selected user display on the form.

Figure 3-7 Remove Organization Technical Administrator Form



Step 6 Click **Submit Order**.

Remove an Organization

Remove an organization from the cloud system.

Note You can only remove an organization if the unit currently has no provisioned servers. To verify whether there are provisioned servers for an organization, see Viewing and Tracking Requisitions, page 5-2. To decommission servers, see Decommissioning a Physical Server, page 4-10 and Decommissioning a Virtual Machine, page 4-7.

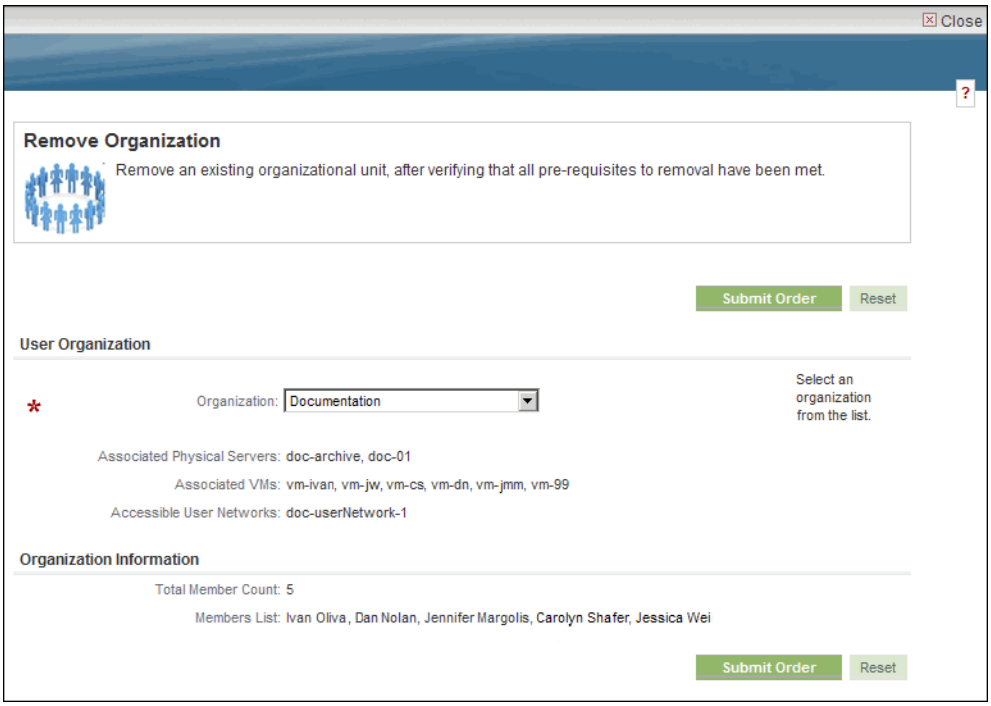
Step 1 Choose **My Workspace** from the module drop-down list and then click the **Organization Management** tab.

Step 2 On the Organization Management portal (Figure 3-1 on page 3-2), click **Remove Organization**.

Step 3 From the Organization Name drop-down list on the Remove Organization form, choose the organization that you want to remove.

Associated physical servers, associated virtual machines, accessible user networks, and community network appear below the Organization Name drop-down list.

Figure 3-8 Remove Organization Form



Step 4 Review the information to confirm that the selected organization is the one that you want to remove, and then click **Submit Order**.

Add a User Network to an Organization

Grant an organization access to an existing network that users can use when deploying servers.

Step 1 Choose **My Workspace** from the module drop-down list and click the Organization Management tab.

Step 2 On the Organization Management portal (Figure 3-1 on page 3-2), click **Add Network to Organization** to open the Add Network from Organization form

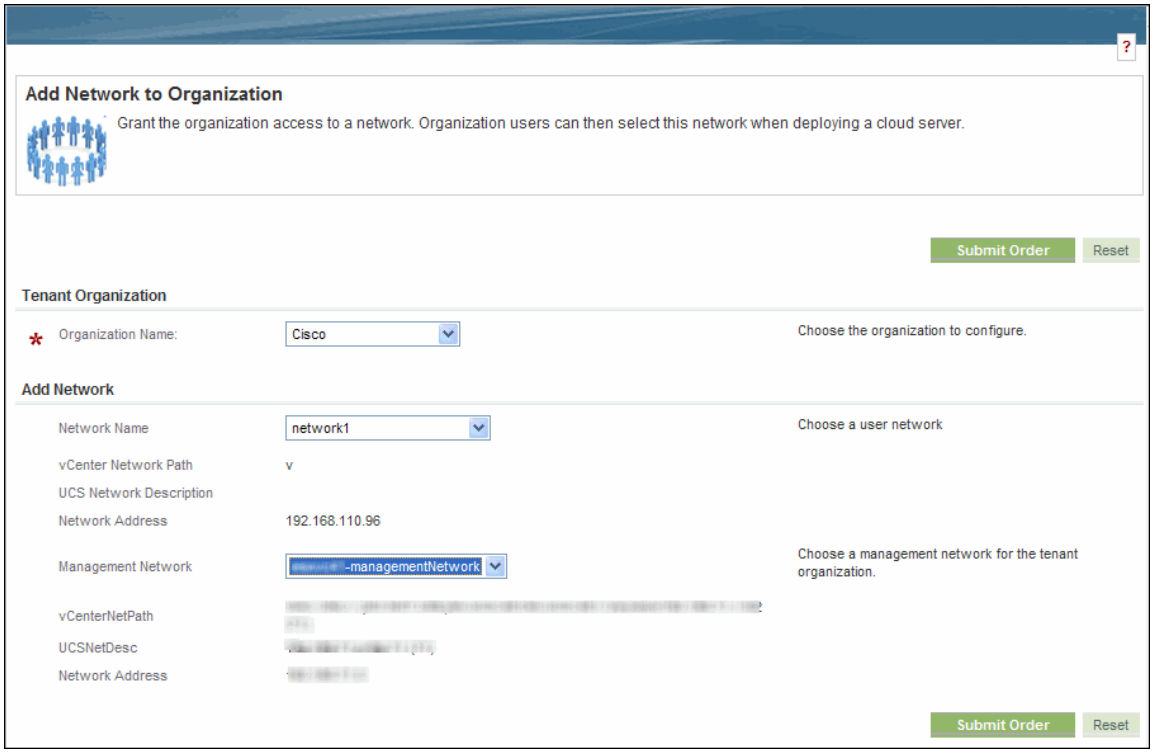
The server owner's name, email address, and home organization unit appear on the form.

Step 3 From the Organization Name drop-down list, choose the organization to which you want to grant access to a user network.

Step 4 From the Network Name drop-down list, choose the network to which you want to grant the organization.

The vCenter network path, UCS network description, network address, and management network associated with the selected user network appear below the drop-down list.

Figure 3-9 Add Network to Organization form



Step 5 Click **Submit Order**.

Remove a User Network from an Organization

Remove a network from an organization without permanently deleting it from the cloud system.

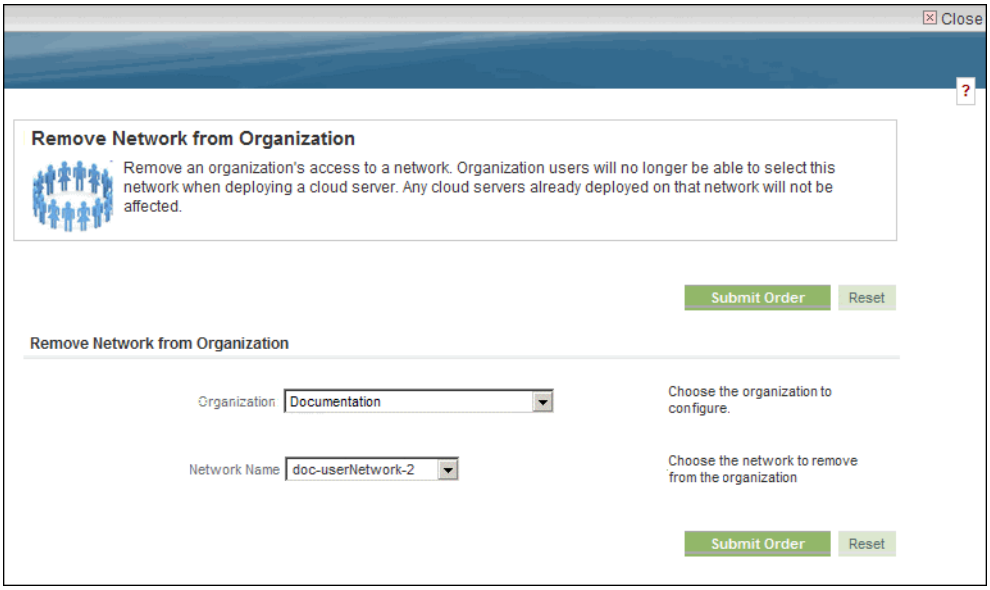
Step 1 Choose **My Workspace** from the module drop-down list and click the Organization Management tab.

Step 2 On the Organization Management portal (Figure 3-1 on page 3-2), click **Remove Network from Organization**.

Step 3 On the Remove Network from Organization form, choose the organization from the drop-down list.

Step 4 Choose the network you want to remove from the Network Name drop-down list.

Figure 3-10 Remove Network from Organization Form



Step 5 Review the information to confirm that the selected network is the one you want to remove from the selected organization, and then click **Submit Order**.

Managing Users

Create and add a user to an organization, modify user details, assign a role, and remove a user from an organization.

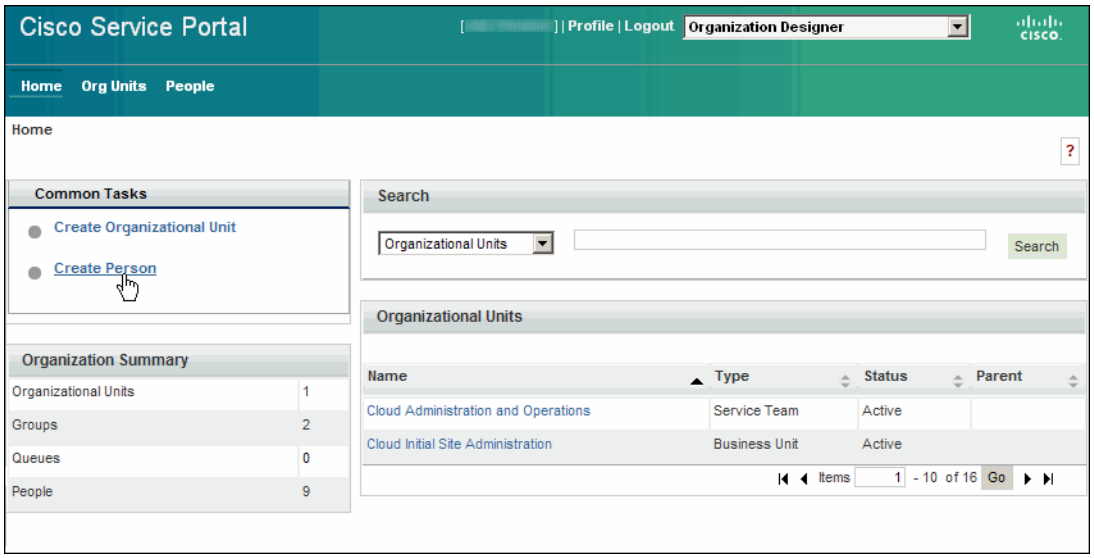
Create a User

Before you can add a user to an organization, you must first create the user in the Cloud system.

Note If external authentication was configured and enabled when the Cloud system was set up by the Site Administrator, you should not create the user. See the steps in this section for more information.

Step 1 Choose **Organization Designer** from the module drop-down list and then click **Create Person** in the Common Tasks panel on the left side of the window.

Figure 3-11 Organization Designer—Create Person

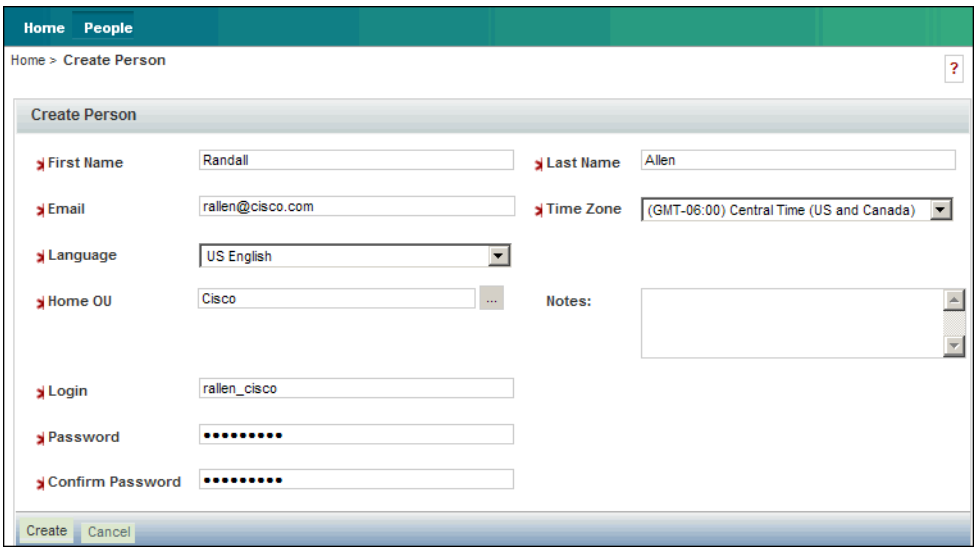


Step 2 On the Create Person form, provide the following information:

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Field	Action
First Name Last Name Email Time Zone	Enter the basic information for the user that is required to create the new user's record within the Cloud system. **Note** The time zone must be set for the user's location and not the location of the home office or management (if applicable).
Language	Leave as is. In the current release, only US English is supported; any language selection you make will be ignored.
Home OU	Click the **Browse** ... tool to open the Select an Organizational Unit dialog box. Enter the organization name, or enter a wildcard *, and then click **Search** to find the user. In the Search Results area, click the radio button next to the organization to which you want to add the user, and then click **OK**.
Notes	*Optional.* Enter any additional information relevant to the user.
Login	Enter a login ID for the new user.
Password Confirm Password	Enter and then confirm a password for the new user.

Figure 3-12 Organization Designer—Create Person Form



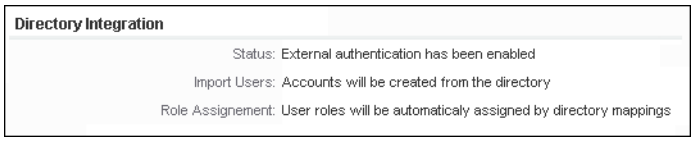
Step 3 Click **Create**.

Add a User

Add an existing user to an organization.

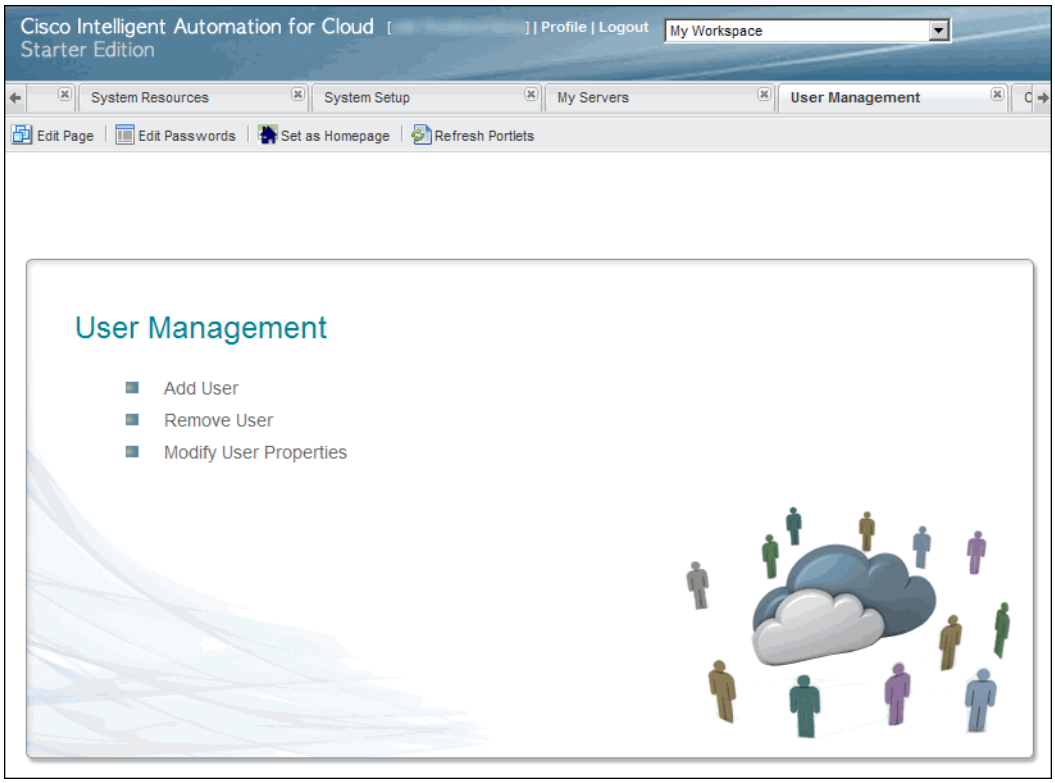
Note If the information shown in Figure 3-4 on page 3-5 appears on the Add User form, it is strongly recommended that you do not proceed with the Add User service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

Figure 3-13 Directory Authorization Notation



Step 1 Choose **My Workspace** from the module drop-down list and then click the **User Management** tab.

Figure 3-14 User Management Portal Page



Step 2 On the Organization Management portal, click **Add User** to open the form.

Note Fields marked with asterisks are required.

Step 3 From the Organization drop-down list on the Add User form, choose the name of the organization that was assigned when the user was created in the cloud system.

Note If the organization you choose is not the user's home organization, an alert will appear. You can either choose the home organization, or keep the other organization you have chosen. On the Add User form, choosing an organization other than the home organization changes the user's home organization.

Step 4 In the Select User field, click **Select** to open the Select Person dialog box (Figure 3-5 on page 3-5).

Step 5 Enter the First Name or Last Name of the user, or enter a wildcard *, and click **Search** to find the user.

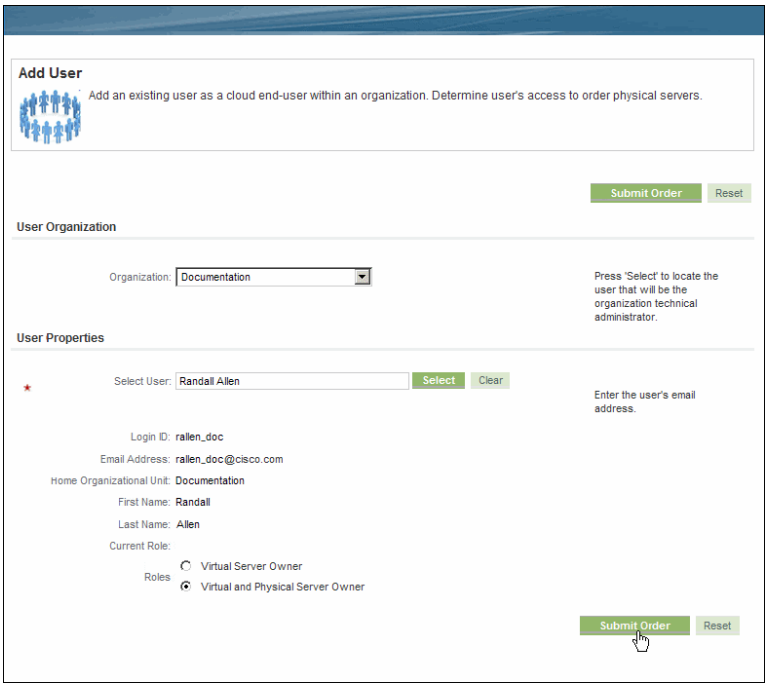
Step 6 In the Search Results area, click the radio button next to the name of the user you want to add to the organization, and then click **OK**.

The User Properties for the selected user display on the form.

Step 7 In the Roles field, click one of the following radio buttons to indicate the role to be assigned to the user:

- Virtual Server Owner—User can order virtual servers.
- Virtual and Physical Server Owner—User can order both virtual and physical servers.

Figure 3-15 Add User Form



Step 8 Click **Submit Order**.

Modify User Details

Add or change optional information in a user's record, including addresses, contact information, employee information, a photo, work hours.

Note If the information shown in Figure 3-13 on page 3-13 appears on the Modify User Properties form, it is strongly recommended that you do not proceed with the Modify User Properties service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

Step 1 Choose **My Workspace** from the module drop-down list and click the **User Management** tab.

Step 2 On the Organization Management portal (Figure 3-1 on page 3-2), click **Modify User Properties**.

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

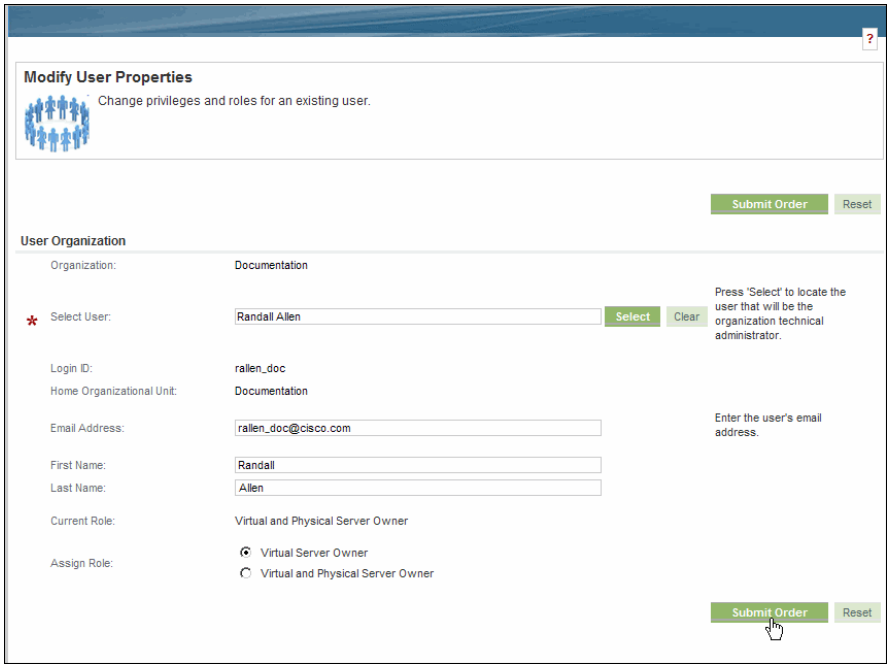
Step 3 In the Select User field, click **Select** to open the Select Person dialog box (Figure 3-5 on page 3-5).

Step 4 Enter the First Name or Last Name of the user, or enter a wildcard *, and click **Search** to find the user.

Step 5 In the Search Results area, click the radio button next to the name of the user whose account you want to modify, and then click **OK**.

The User Properties for the selected user display on the form.

Figure 3-16 Modify User Properties Form



Note The asterisk * next to a field indicates that it is a required field and must contain a valid value

Step 6 Modify any of the following information for the user account:

Field Name	Action
Email Address	Enter the email address for the user.
First Name	Enter the first name of the user.
Last Name	Enter the last name of the user.
Assign Roles	Click one of the following radio buttons to modify the roles for the user: • Virtual Server Owner—User can order virtual servers. • Virtual and Physical Server Owner—User can order both virtual and physical servers.

Step 7 Click **Submit Order**.

Remove a User

Remove a user from an organization without deleting the user from the cloud system.

Note If the information shown in Figure 3-13 on page 3-13 appears on the Remove User form, it is strongly recommended that you do not proceed with the Remove User service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **User Management** tab.

Step 2 On the Organization Management portal (Figure 3-1 on page 3-2), click **Remove User** to open the form.

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

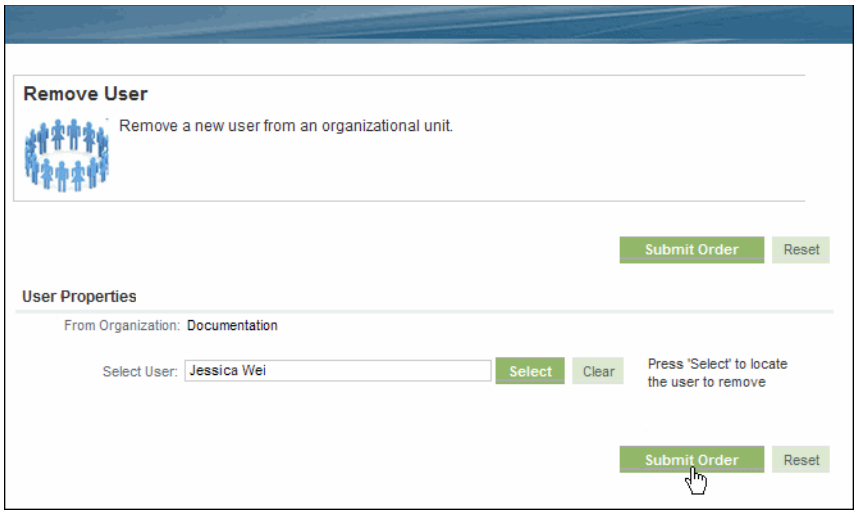
Step 3 In the Select User field, click **Select** to open the Select Person dialog box (Figure 3-5 on page 3-5).

Step 4 Enter the First Name or Last Name of the user, or enter a wildcard *, and click **Search** to find the user.

Step 5 In the Search Results area, click the radio button next to the name of the user you want to remove from the organization, and then click **OK**.

The User Properties for the selected user display on the form.

Figure 3-17 Remove User Form



Step 6 Click **Submit Order**.

Assigning User Roles

By assigning a role to a user, you are granting a pre-defined set of permissions and access levels, depending on their purpose. For example, while a Server Owner manages individual servers within an organization, a cloud provider technical administrator oversees cloud system operations that support multiple organizations.

Note If directory authorization has been enabled for your Cloud environment, then you may not be able to assign roles to users from Cloud Portal. Directory integration can be configured so that user accounts must be created from the directory, where user roles are also assigned; in this case, any reconfigurations made in Cloud Portal will be overwritten by the directory. For information on whether this affects a task you want to perform, see the section for the task in this section.

For more information on User Roles, see User Roles and Capabilities, page 1-12.

Add a Cloud Provider Technical Administrator

Assign the role of Cloud Provider Technical Administrator to a user in an organization.

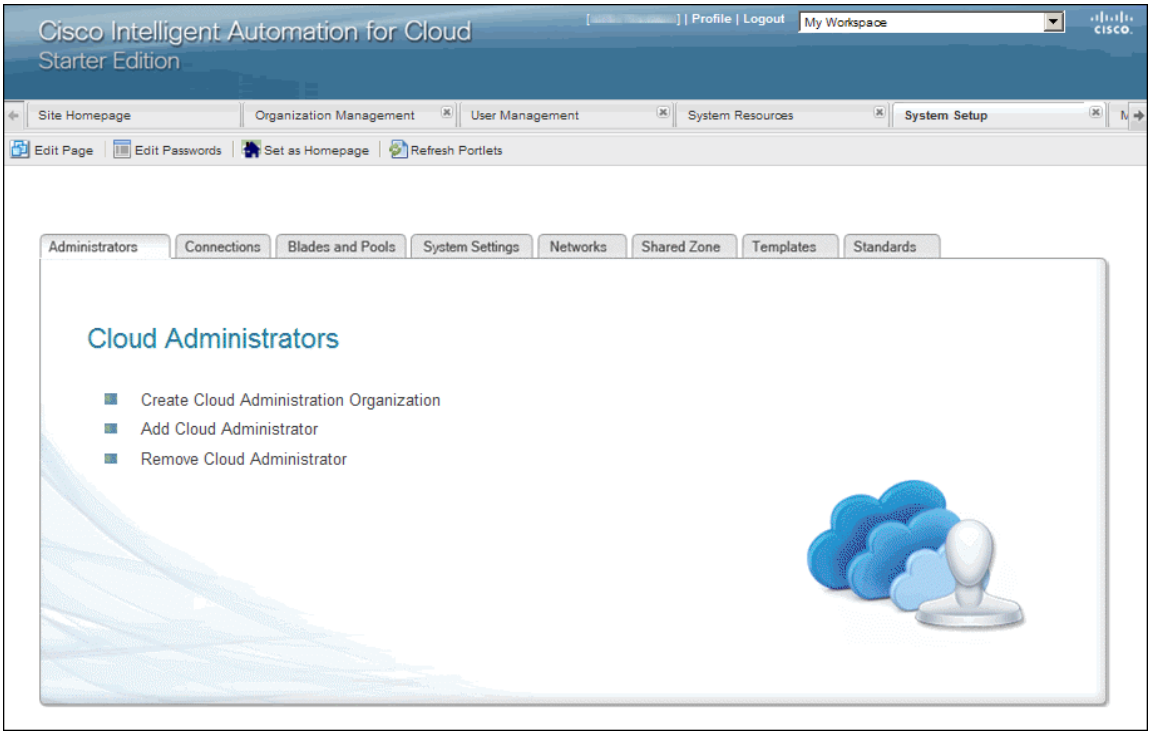
Note If the information shown in Figure 3-13 on page 3-13 appears on the Add Cloud Administrator form, it is strongly recommended that you do not proceed with the Add Cloud Administrator service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

Step 1 Open Cloud Portal and log in as an administrator.

Step 2 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

On the System Setup portal page, the **Administrators** portlet is displayed.

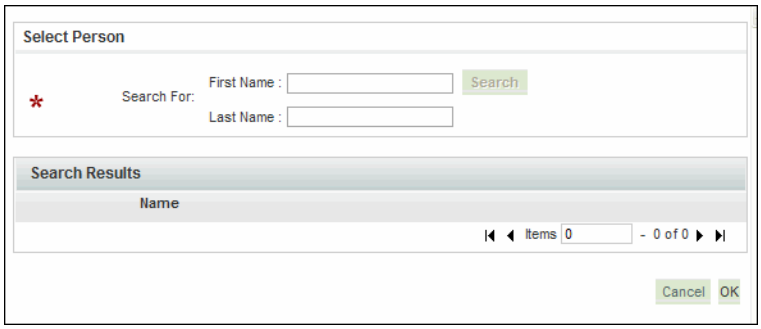
Figure 3-18 Administrators Portlet



Step 3 On the Cloud Administrators portlet, click **Add Cloud Administrator**.

Step 4 In the Select User field, click **Select** to open the Select Person dialog box.

Figure 3-19 Select Person Dialog Box

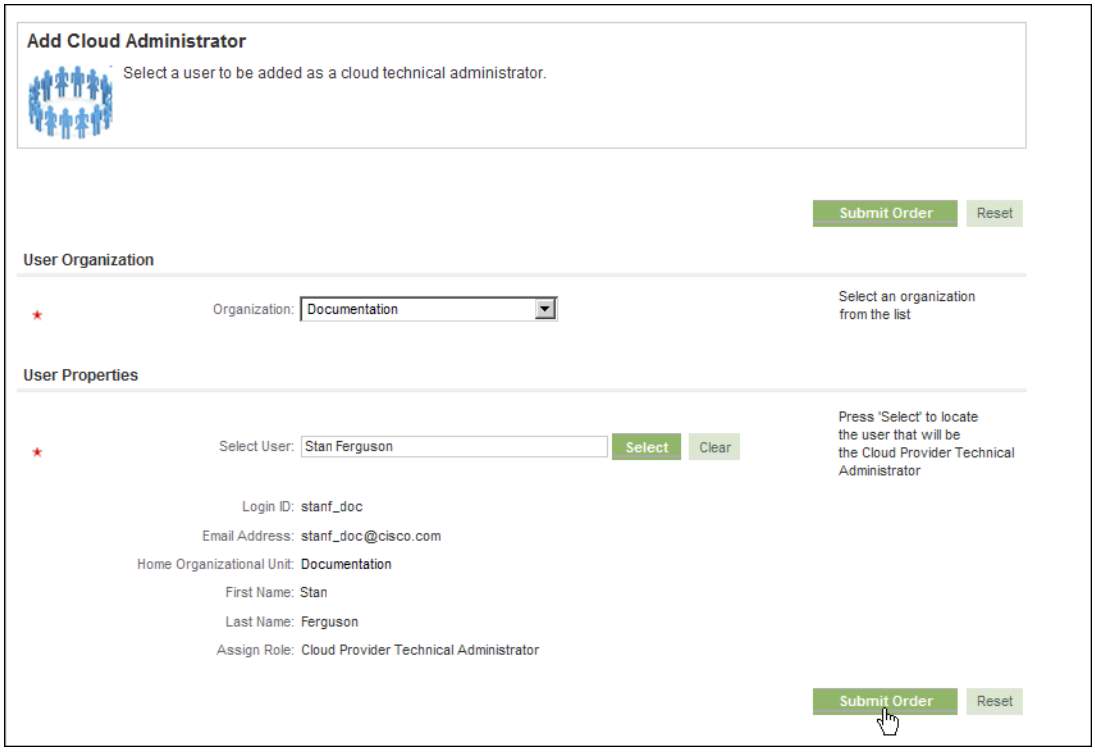


Step 5 Enter the First Name or Last Name of the user you want to add as a Cloud Administrator, or enter a wildcard *, and click **Search** to find the user.

Step 6 In the Search Results area, click the radio button next to the name of the user, and then click **OK**.

Properties for the selected user display on the form.

Figure 3-20 Add Cloud Administrator Form



Step 7 Click **Submit Order**.

Add a Server Owner

Assign an existing user to a Virtual Server Owner or Virtual and Physical Server Owner role in an organization.

For more information about the server owner roles, see Virtual Server Owner, page 1-13 and Virtual and Physical Server Owner, page 1-13.

Note If the information shown in Figure 3-13 on page 3-13 appears on the Add Server Owner form, it is strongly recommended that you do not proceed with the Add Server Owner service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **User Management** tab.

Step 2 On the User Management portal page (Figure 3-14 on page 3-13), click **Add User**.

Step 3 On the Add User form, choose the organization to which you want to add the user.

Step 4 In the Select User field, click **Select** to open the Select Person dialog box (Figure 3-5 on page 3-5).

Step 5 Enter the First Name or Last Name of the user, or enter a wildcard *, and click **Search** to find the user.

Step 6 In the Search Results area, click the radio button next to the name of the user whom you want to add as a Server Owner, and then click **OK**.

The User Properties for the selected user display on the form (Figure 3-15 on page 3-14).

Step 7 For Roles, click one of the following radio buttons:

- Virtual Server Owner
- Virtual and Physical Server Owner

Step 8 Click **Submit Order**.

Remove a Server Owner

Remove a Server Owner role from a user in an organization without deleting the user from the cloud system.

Note If the information shown in Figure 3-13 on page 3-13 appears on the Remove Server Owner form, it is strongly recommended that you do not proceed with the Remove Server Owner service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **User Management** tab.

Step 2 On the User Management portal page (Figure 3-14 on page 3-13), click **Remove User**.

Step 3 On the Remove User form, choose the organization from which you want to remove the user.

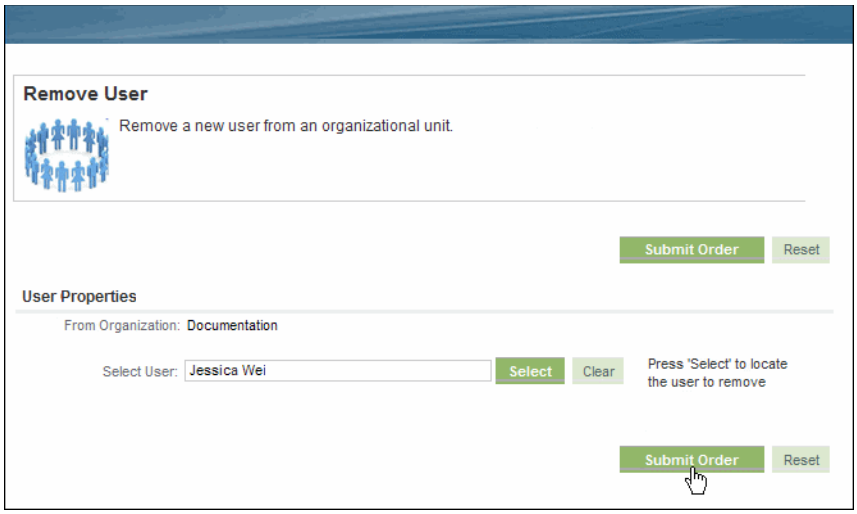
Step 4 In the Select User field, click **Select** to open the Select Person dialog box (Figure 3-5 on page 3-5).

Step 5 Enter the First Name or Last Name of the user, or enter a wildcard *, and click **Search** to find the user.

Step 6 In the Search Results area, click the radio button next to the name of the user whom you want to remove as a Server Owner, and then click **OK**.

The User Properties for the selected user display on the form (Figure 3-17 on page 3-17).

Figure 3-21 Remove User Form



Step 7 Click **Submit Order**.

Reassign an Organization Technical Administrator as a Server Owner

Change a user's role within an organization from Organization Technical Administrator to Virtual Server Owner or Virtual and Physical Server Owner.

Note If the information shown in Figure 3-13 on page 3-13 appears on the Remove Server Owner form, it is strongly recommended that you do not proceed with the Remove Server Owner service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

For more information about the Server Owner roles, see Virtual Server Owner, page 1-13 and Virtual and Physical Server Owner, page 1-13.

Step 1 Follow the steps for removing an organization technical administrator, outlined in Remove an Organization Technical Administrator, page 3-7.

Step 2 Follow the steps for adding a server owner, outlined in Add a Server Owner, page 3-20.

Reassign a Server Owner to Another Server Owner Role

Follow the steps in Modify User Details, page 3-15.

Note If the information shown in Figure 3-13 on page 3-13 appears on the Remove Server Owner form, it is strongly recommended that you do not proceed with the Remove Server Owner service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

Reassign a Server Owner as a Organization Technical Administrator

Change a user's role within an organization from Virtual Server Owner or Virtual and Physical Server Owner to Organization Technical Administrator.

Note Change a user's role within an organization from Virtual Server Owner or Virtual and Physical Server If the information shown in Figure 3-13 on page 3-13 appears on the Remove Server Owner form, it is strongly recommended that you do not proceed with the Remove Server Owner service. In this case, the external directory has already defined the user with an organization and role. Any changes you make will be overridden by the definitions set in the directory.

For more information about the Organization Technical Administrator role, see Organization Technical Administrator, page 1-13.

Step 1 Follow the steps for removing a server owner, outlined in Remove a Server Owner, page 3-20.

Step 2 Follow the steps for adding an Organization Technical Administrator, outlined in Add an Organization Technical Administrator, page 3-5.

Changing the NSAPI User Account Username and Password

During Cloud Portal setup, a local NSAPI user was created exclusively for use when configuring Cloud Portal API. You can change the username, password, or both.

Changing the credentials for the NSAPI user involves two steps:

- Change the NSAPI User Credentials in Cloud Portal
- Update the Associated Extended Target Properties in Tidal Enterprise Orchestrator

Change the NSAPI User Credentials in Cloud Portal

Note For information on how the NSAPI User was created, *see* the *Cisco Intelligent Automation for Cloud Starter Edition Configuration Guide*.

Step 1 Choose **Organization Designer (**Figure 3-11 on page 3-11**)** from the module drop-down list, and then click the **People** tab.

Step 2 In the People pane on the left, enter **NSAPI** in the search field, and then click **Search**.

Step 3 Click the NSAPI username to display user information.

Step 4 Edit the values in either or both the username (Login) and password.

Step 5 Click **Update**.

Step 6 Proceed to the next section, Update the Associated Extended Target Properties in Tidal Enterprise Orchestrator.

Update the Associated Extended Target Properties in Tidal Enterprise Orchestrator

When you change the NSAPI username, password, or both, you must also edit associated the extended target properties with the new credentials in TEO.

You will edit the following extended target properties:

- Cloud.Configuration.CloudPortal.API.Password
- Cloud.Configuration.CloudPortal.API.User

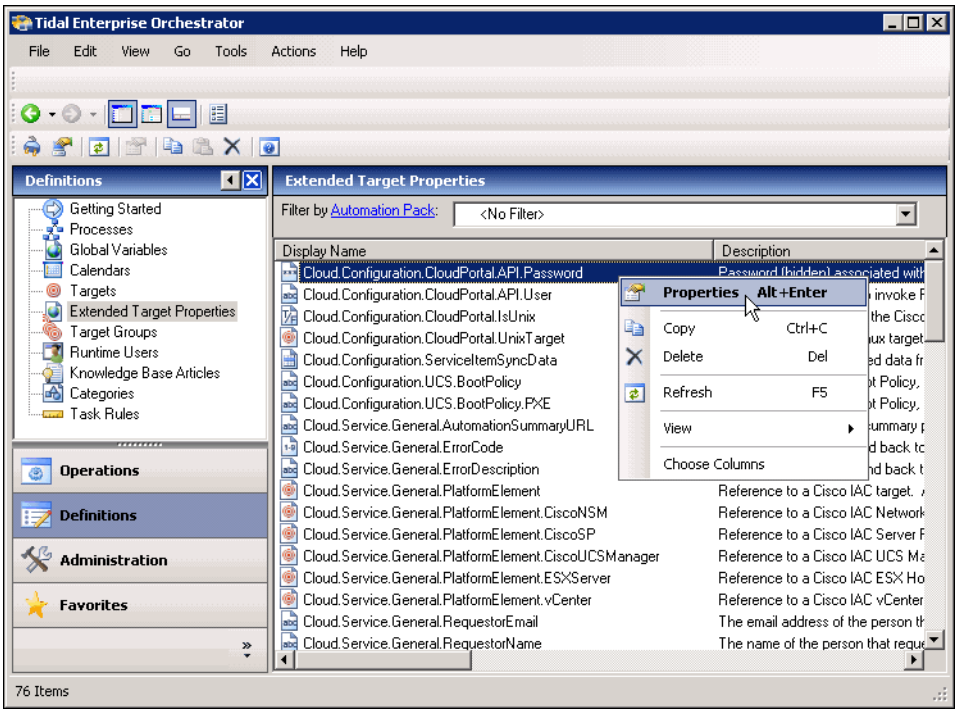
Step 1 Open TEO Console and log in.

Step 2 Click Definitions in the navigation pane to display the **Definitions** workspace, if it is not already displaying.

Step 3 In the navigation pane, click **Extended Target Properties**.

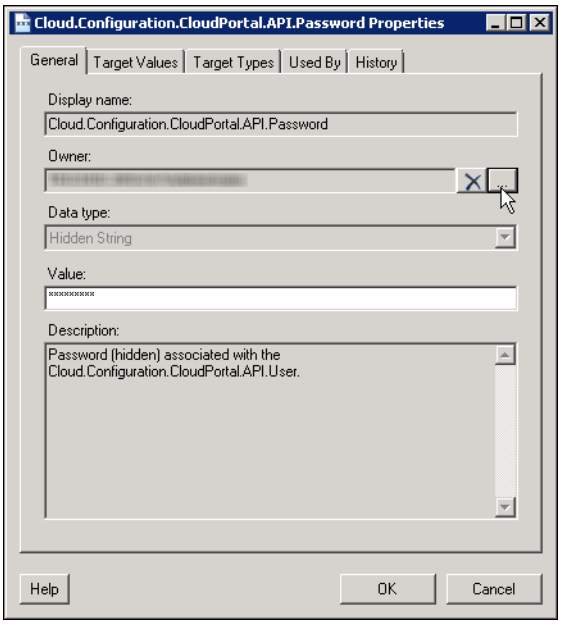
Step 4 In the Extended Target Properties list, right-click Cloud.Configuration.CloudPortal.API.Password and choose **Properties**.

Figure 3-22 Extended Target Property—Opening Properties Dialog Box



Step 5 Right-click Cloud.Configuration.CloudPortal.API.User and choose **Properties**.

Figure 3-23 Extended Target Properties—Properties Dialog Box



Step 6 Click the **Browse** tool beside the Owner field.

Step 7 In the Select User or Group dialog box, enter the username.

Step 8 Click **Check Names** to verify that the user exists.

Note You will be required to log in before the check proceeds.

If the username cannot be verified, double-check the username that you specified in Change the NSAPI User Credentials in Cloud Portal, page 3-23.

Step 9 Click **OK** to close the Select User or Group dialog box.

Step 10 In Cloud.Configuration.CloudPortal.API.Password dialog box, change the password in the Value field.

Note The password displays as asterisks. Ensure that you enter the password correctly.

Step 11 Click **OK** to complete the procedure.

CHAPTER 4

Ordering Cloud Services

Cloud Portal hosts the customer-facing element of Cisco Intelligent Automation for Cloud Starter Edition, where users log in and order services.

This chapter provides information and steps for commissioning and decommissioning servers. It includes the following sections:

Commissioning a Virtual Machine and Installing an Operating System

Deploy a virtual machine with your chosen operating system in the cloud system.

Step 1 Choose **My Workspace** from the module drop-down and click the **Order Servers** tab.

Step 2 On the Order Servers portal click **Order a Virtual Machine and Install an OS**.

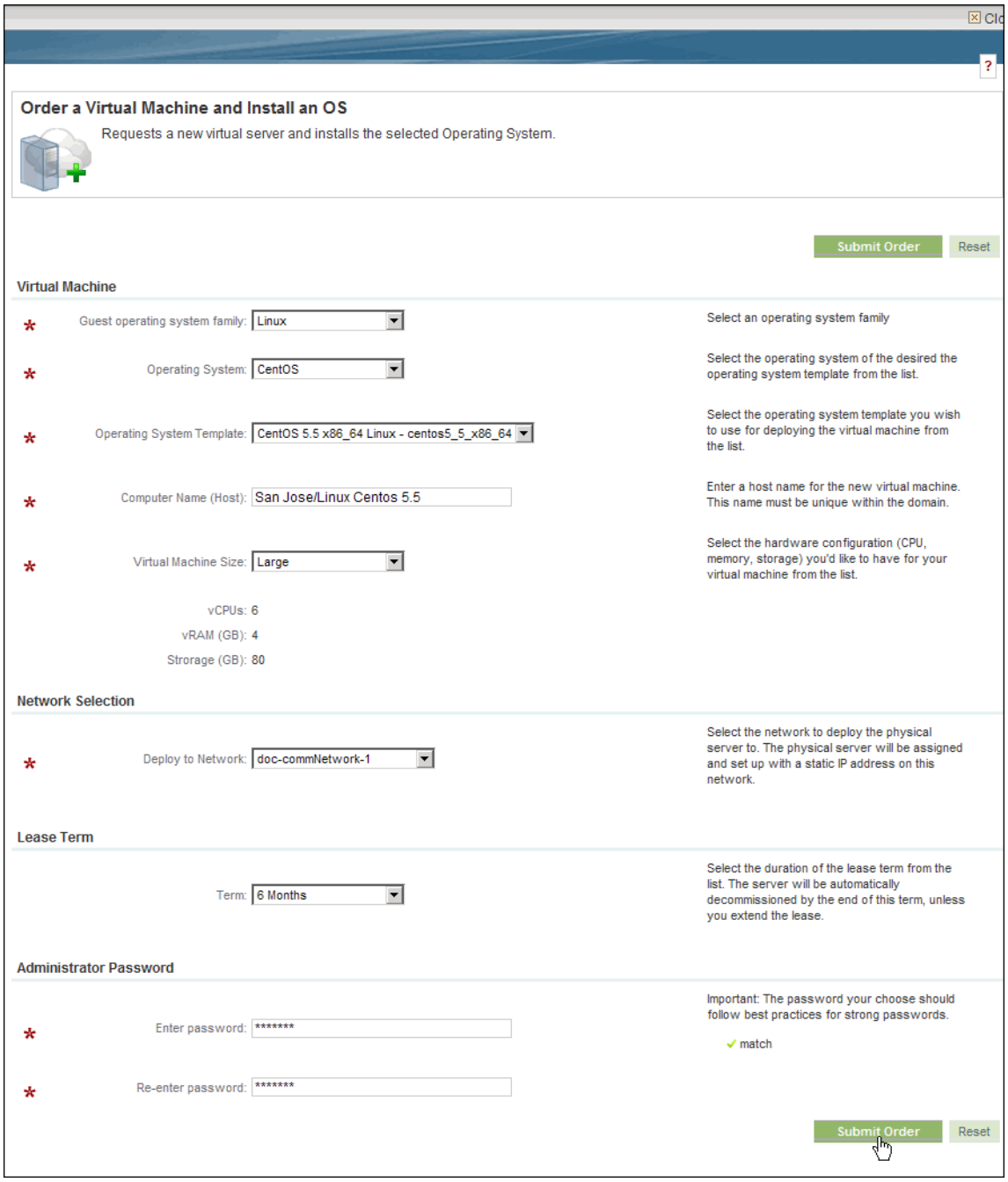
Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 3 On the Order a Virtual Machine and Install an OS form, specify the following information.

Field	Action
Guest Operating System Family	Choose **Windows** or **Linux**.
Operating System	Choose platform and version number of the operating system.
Operating System Template	Choose the template that you want to use to create the new virtual machine. (The selections in this drop-down depend on the operating system that you select.)
Computer Name (Host)	Enter a unique name for the new virtual machine.
Virtual Machine Size	Choose a server size form the drop-down list. Your select populates the display-only fields vCPUs and vRAM (GB). **Note** The vCPU and vRAM values are set for each server size option and cannot be changed individually. To view the vCPUs and vRAM (GB) values for an option, select the option from the drop-down list. The values automatically populate the display-only fields immediately under the drop-down list.
Deploy to Network	Choose a network whose static IP address will be assigned to the new virtual machine. Your selection populates the following display-only fields: • Network Selection • Routing Prefix • Subnet Mask • Gateway Address • Broadcast Address • vCenter Network Path • UCS Network Description

Field	Action
Lease Term	*Optional.* Choose a lease term from the drop-down list. Your selection populates the display-only fields # of Days For Lease, Lease Expiration Date, and Storage Expiration Date. For more information server lease terms and expiration dates, see Managing Server Leases, page 5-14.
Enter password Re-enter password	Enter and then re-enter a password that you will need to configure the new server on fulfillment. The password must conform to company and domain policy or the provisioning may fail during configuration.

Figure 4-1 Order a Virtual Machine and Install OS Form



Step 4 Click **Submit Order**.

Commissioning a Virtual Machine from a Template

Deploy a virtual machine using a template with pre-configured settings.

Step 1 Choose **My Workspace** from the module drop-down and click the **Order Servers** tab.

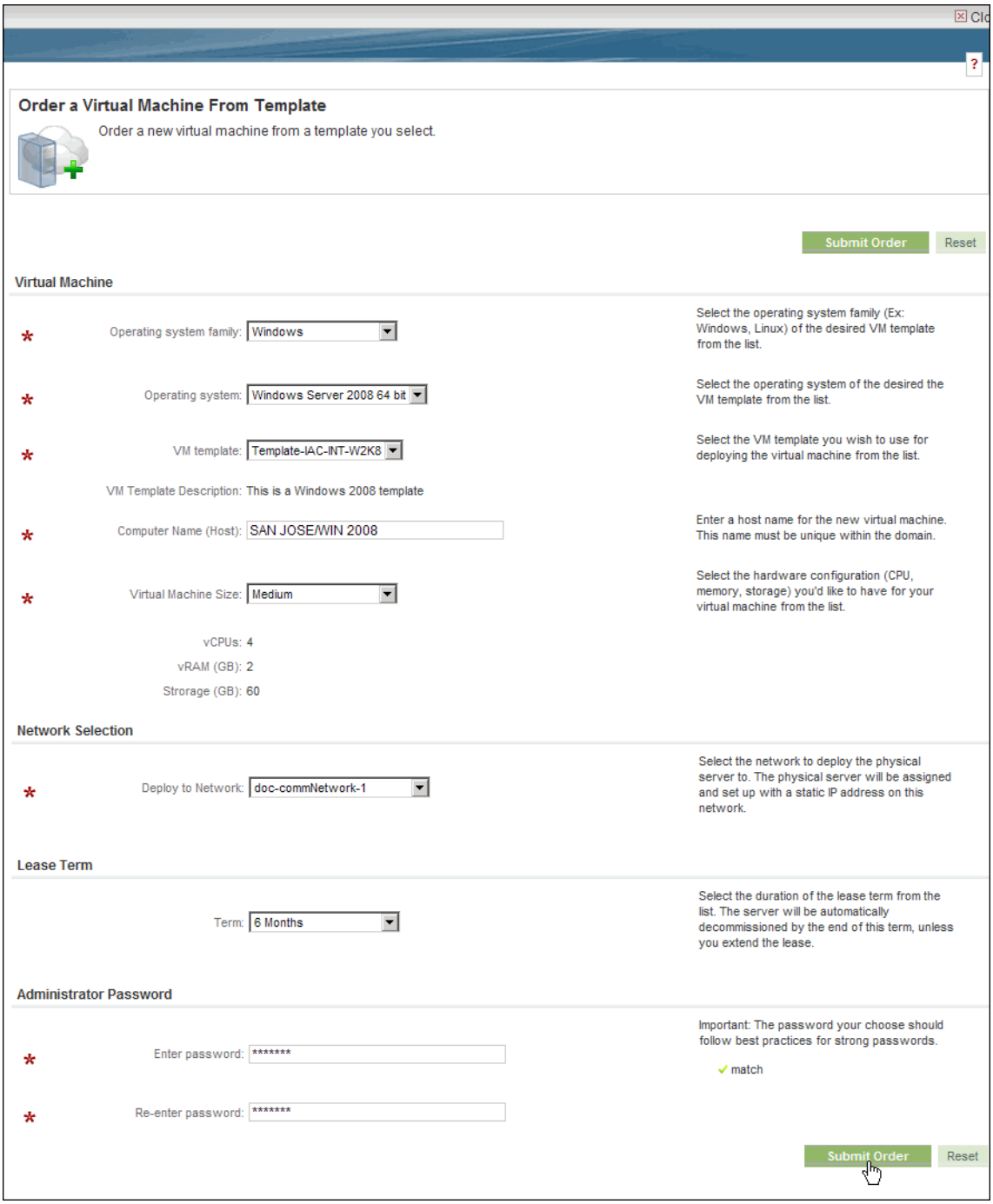
Step 2 On the Order Servers portal click **Order a Virtual Machine From Template**.

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 3 On the Order a Virtual Machine From Template form, choose or enter the information shown in the following table.

Field	Action
Operating system family	Choose **Windows** or **Linux**
Operating system	Choose platform and version number of the operating system
VM template	Choose the template that you want to use to create the new virtual machine. (The selections in this drop-down depend on the operating system that you select.)
Computer Name (Host)	Enter a name for the new virtual machine. The name must be unique.
Virtual Machine Size	Choose a server size form the drop-down list. Your select populates the display-only fields vCPUs and vRAM (GB). **Note** The vCPU and vRAM values are set for each server size option and cannot be changed individually. To view the vCPUs and vRAM (GB) values for an option, select the option from the drop-down list. The values automatically populate the display-only fields immediately under the drop-down list.
Deploy to Network	Choose a network whose static IP address will be assigned to the new virtual machine.
Term	Choose a lease term: **1 month**, **3 months**, **6 months**, **9 months**, or **12 months**. Your selection populates the display-only fields # of Days For Lease, Lease Expiration Date, and Storage Expiration Date. For more information server lease terms and expiration dates, see Managing Server Leases, page 5-14.
Enter password Re-enter password	Enter and then re-enter a password that you will need to configure the new server on fulfillment. The password must conform to company and domain policy or the provisioning may fail during configuration.

Figure 4-2 Order a Virtual Machine from Template Form



Step 4 Click **Submit Order**.

Decommissioning a Virtual Machine

Power-off and permanently remove an existing virtual machine from the Cloud resource pool, and release all associated resources for re-use.

Step 1 Choose **My Workspace** from the module drop-down and click the **My Servers** tab.

Step 2 On the My Servers portal (Figure 2-1 on page 2-3), locate and click the name of the virtual machine that you want to decommission.

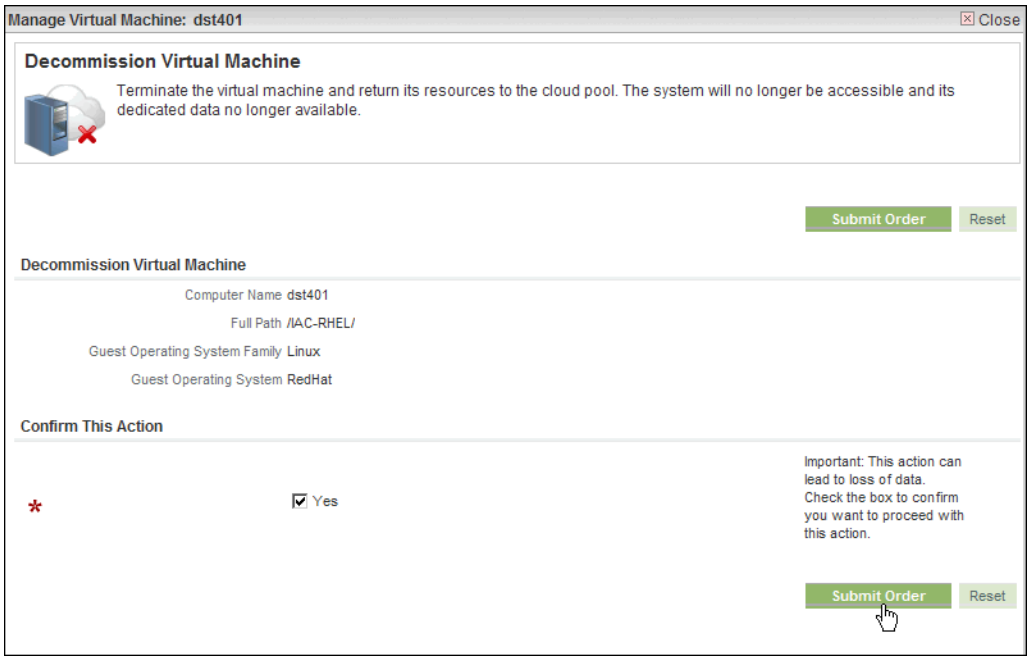
Detailed information about the virtual machine and icons for performing actions appear in the Take Action panel.

Step 3 Click the **Decommission** icon.

The Decommission Virtual Machine form displays the computer name, full path, and operating system.

Step 4 Check the **Yes** check box to confirm the decommission.

Figure 4-3 Decommission Virtual Machine Form



Step 5 Click **Submit Order**.

Commissioning a Physical Server

Note Virtual Server Owners do not have permissions to order physical servers.

Deploy a physical server with Windows or Linux operating system installed.

Step 1 Choose **My Workspace** from the module drop-down and click the **Order Servers** tab.

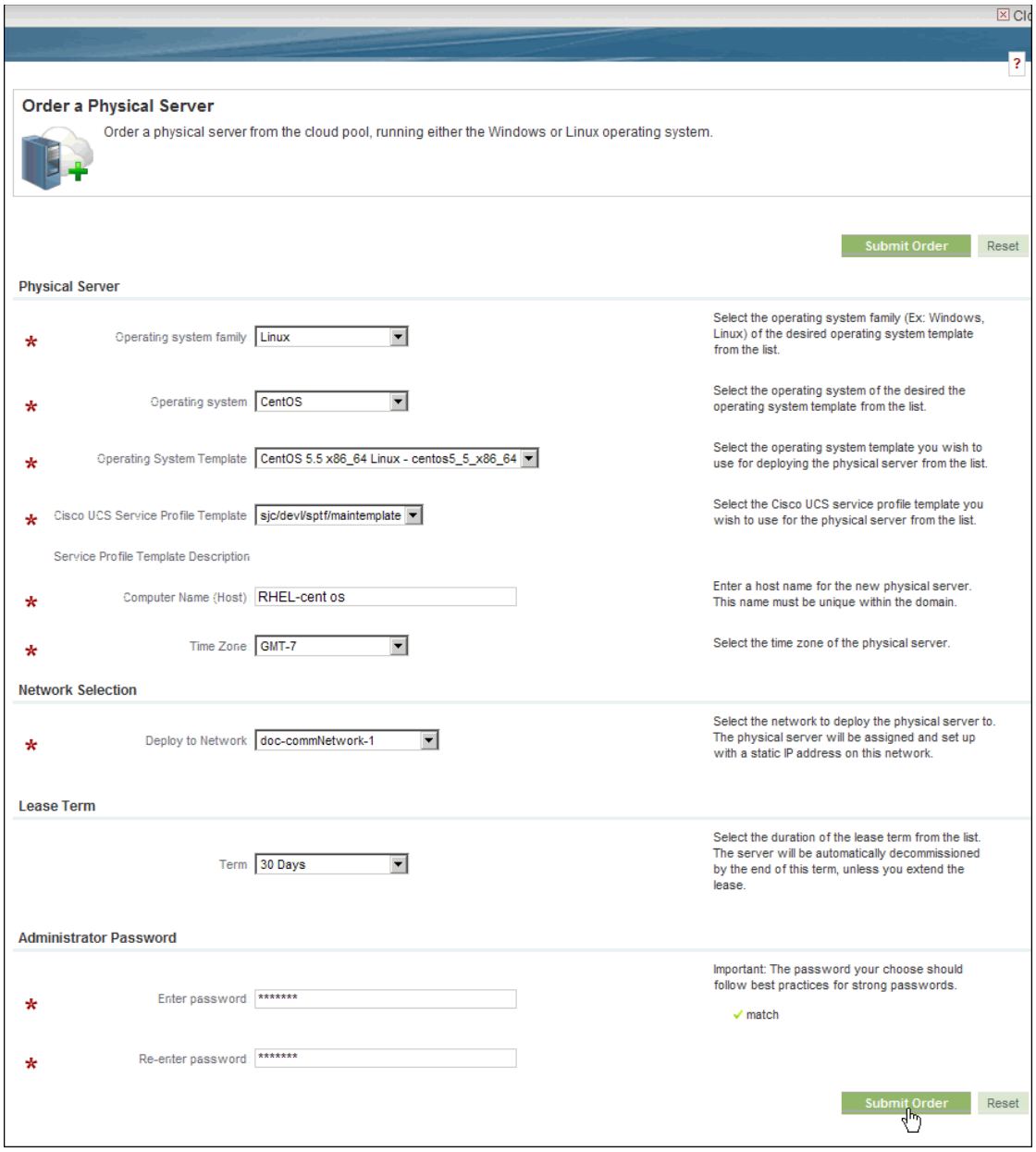
Step 2 On the Order Servers portal click **Order a Physical Server**.

Note The asterisk * next to a field indicates that it is a required field and must contain a valid value.

Step 3 On the Order a Physical Server form, choose or enter the information shown in the following table.

Field	Action
Operating system family	Choose **Windows** or **Linux**
Operating system	Choose platform and version number of the operating system
Operating System Template	Choose the template that you want to use to create the new physical server. (The selections in this drop-down depend on the operating system that you select.) To register an operating system template, see Register an Operating System Template, page 2-40.
Cisco UCS Service Profile Template	Choose the UCS server profile template that you want to use to create the new physical server. (The selections in this drop-down depend on the operating system that you select.) To register a UCS service profile template, see Register a UCS Service Profile Template, page 2-43.
Computer Name (Host)	Enter a name for the new server. The name must be unique. I
Computer time zone	Choose the time zone of the physical location of the new server.
Deploy to Network	Choose a network whose static IP address will be assigned to the new virtual machine.
Term	Choose a lease term: **1 month**, **3 months**, **6 months**, **9 months**, or **12 months**. Your selection populates the display-only fields # of Days For Lease, Lease Expiration Date, Storage Expiration Date. For more information server lease terms and expiration dates, see Managing Server Leases, page 5-14.
Enter password Re-enter password	Enter and re-enter a password that you will need to configure the new server on fulfillment. The password must conform to company and domain policy or the provisioning may fail during configuration.

Figure 4-4 Order a Physical Server Form



Step 4 Click **Submit Order**.

Decommissioning a Physical Server

Power down and permanently remove an existing physical server, including power off, from the Cloud resource pool, and release all associated resources for re-use.

Step 1 Choose **My Workspace** from the module drop-down and click the **My Servers** tab.

Step 2 On the My Servers portal (Figure 2-1 on page 2-3), locate and click the name of the physical server that you want to decommission.

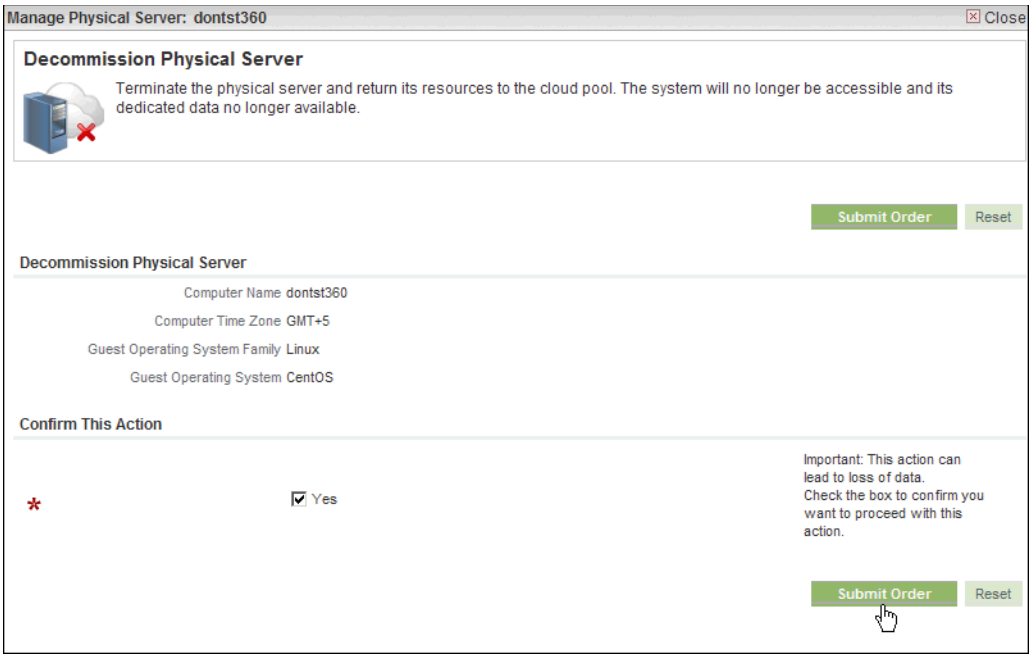
Detailed information about the server and icons for performing actions appear in the Take Action panel.

Step 3 Click the **Decommission** icon.

The Decommission Physical Server form displays the computer name, time zone, and operating system.

Step 4 Check the **Yes** check box to confirm the decommission.

Figure 4-5 Decommission Physical Server Form



Step 5 Click **Submit Order**.

CHAPTER 5

Managing Services

Cloud Provider Technical Administrators use Cloud Portal to configure standards for service items, manage server leases, and monitor service process flows to ensure they operate smoothly and quickly fix any problems that might arise.

This chapter provides information and steps for managing the service process flow and configuring orderable units. It includes the following sections:

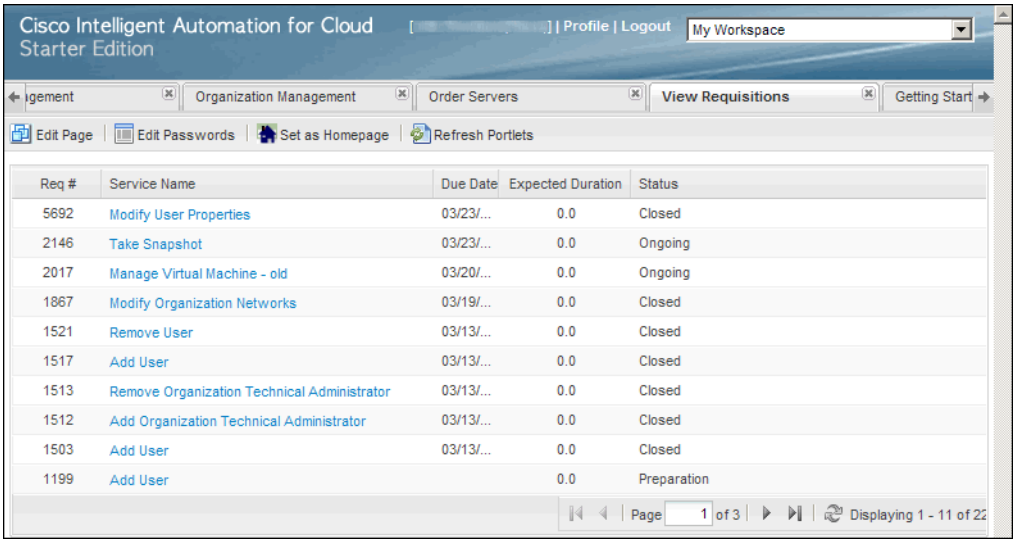
Viewing and Tracking Requisitions

Look up information about a service request, including its fulfillment status, order date, and the organization billed for the service.

Step 1 Choose **My Workspace** from the module drop-down list and then click the **View Requisitions** tab.

The View Requisitions portal displays a table appears listing your requisitions. It includes service ID, service name, due date, expected duration, and status for each requisition.

Figure 5-1 View Requisitions Portal



Step 2 In the table, locate and click the order that you want to track.

A requisition summary form appears, providing details about the order.

Step 3 To view history or add comments, click **Comments & History** in the right-hand menu.

Step 4 To add an attachment, click **Attachments** in the right hand-menu.

Adding, Modifying, or Deleting Standards for Service Options

Service option standards are the options that appear in drop-down lists for users to choose when ordering servers. Using the Standards service, you can control the available lease term options by adding or modifying of these service option standards.

This section provides instructions for the following tasks:

You can add, modify, or delete the lease term, operating system, and server size standards for ordering servers. The values you set will appear as choices for users when ordering servers.

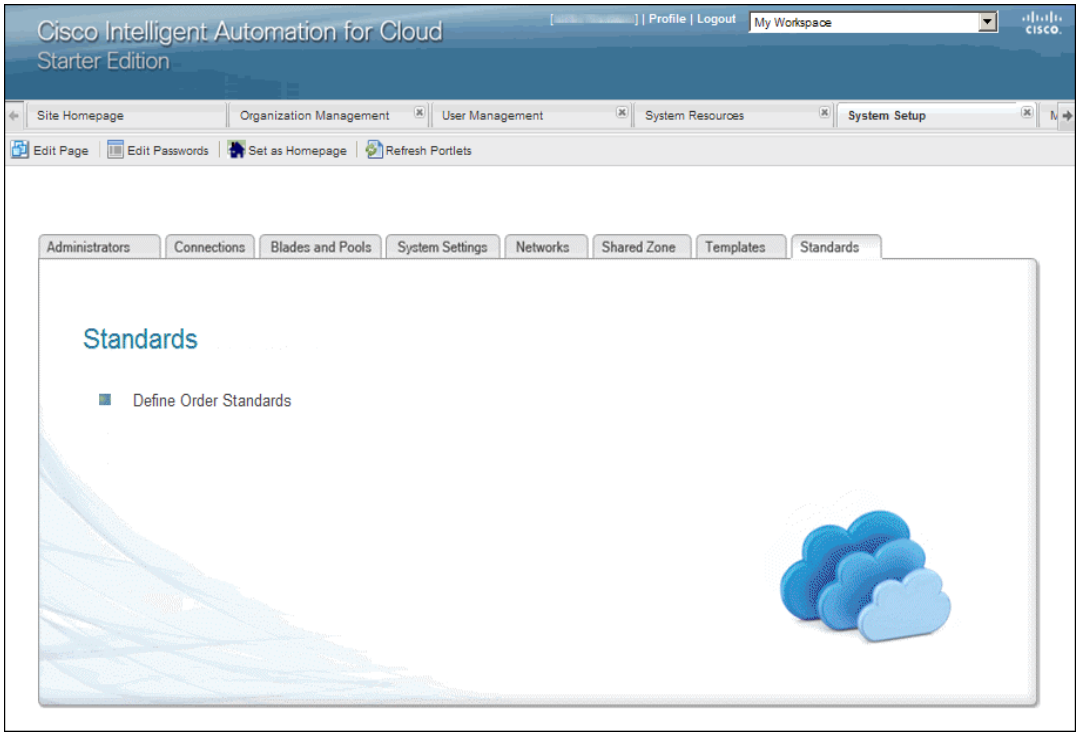
View Standards Settings

View the default standard settings for lease term, operating systems, and server size to determine whether you want to change the values.

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal page, click the **Standards** tab.

Figure 5-2 Standards Portlet



Step 3 In the Standards portlet, click **Define Order Standards**.

Step 4 In the Standard panel on the left, click **Lease Terms** in the Service Options folder on the left, and note the settings.

Note Lease term settings are defined in seconds. If you add or modify a lease term standard, you will need to know the number of seconds in the new lease duration. The table in Step 7 of Add a New Lease Term Standard, page 5-5, lists seconds in hour and day units to help you calculate the values.

Step 5 Repeat Step 1 through Step 4 for **OS Systems** and **Server Size**.

To add, modify, or delete a standards, see the following sections:

- Add, Modify, or Delete a Lease Term Standard
- Add, Modify, or Delete an Operating System Standard, page 5-9
- Add, Modify, or Delete a Server Size Standard, page 5-11

Add, Modify, or Delete a Lease Term Standard

Lease term standards define the lease duration options that users can choose from drop-down lists when they order servers.

A lease is a service option that sets a duration (for example, three months) on a server from the time it is commissioned. During the lease period, the server is active and accessible to users. When the lease term expires, the server is automatically decommissioned and placed into storage for a defined length of time. (When a server is decommissioned, it has not been deleted, but it is not accessible to users.) When the storage period expires, the server is deleted and its data is lost.

Note A Server Owner can extend the lease on the server while it is active, or re-commission the server while it is in storage. Instructions for extending a lease and commissioning a server are provided in the *Cisco Intelligent Automation for Cloud Starter Edition User Guide*.

Each lease term standard has four settings:

- Term—The name of the option describing the duration of the lease. For example, 90 days. This value appears in the drop-down list for users to choose, so it must be clear and descriptive.
- Runtime Seconds—The duration of the lease, defined in seconds. The runtime value must always match the defined term. For example, a 30 day lease has a runtime value is 2592000 seconds. This value is hidden from users.

Note The table in Step 7 of Add a New Lease Term Standard, page 5-5, lists seconds in hour and day units to help you determine values for lease terms.

- Storage Seconds—The time period during which the server is stored after the lease expires. The default setting is 864000 seconds, or 10 days. This value is hidden from users.
- Warning1Seconds—The number of seconds before the lease expiration date when the first expiration warning notification is sent to the server owner. The default setting is 604800 seconds, or 7 days after commission. This value is hidden from users.
- Warning2Seconds—The number of seconds before the lease expiration date when the second expiration warning notification is sent to the server owner. The default setting is 86400 seconds, or 1 day before expiration. This value is hidden from users.

Starter Edition ships with five pre-configured lease term standards: 30 days, 90 days, 6 months (180 days), 1 year, and No Lease. You can accept, modify, or delete a default lease term standard, and you can add a new standard.

This section provides instructions for the following modifications:

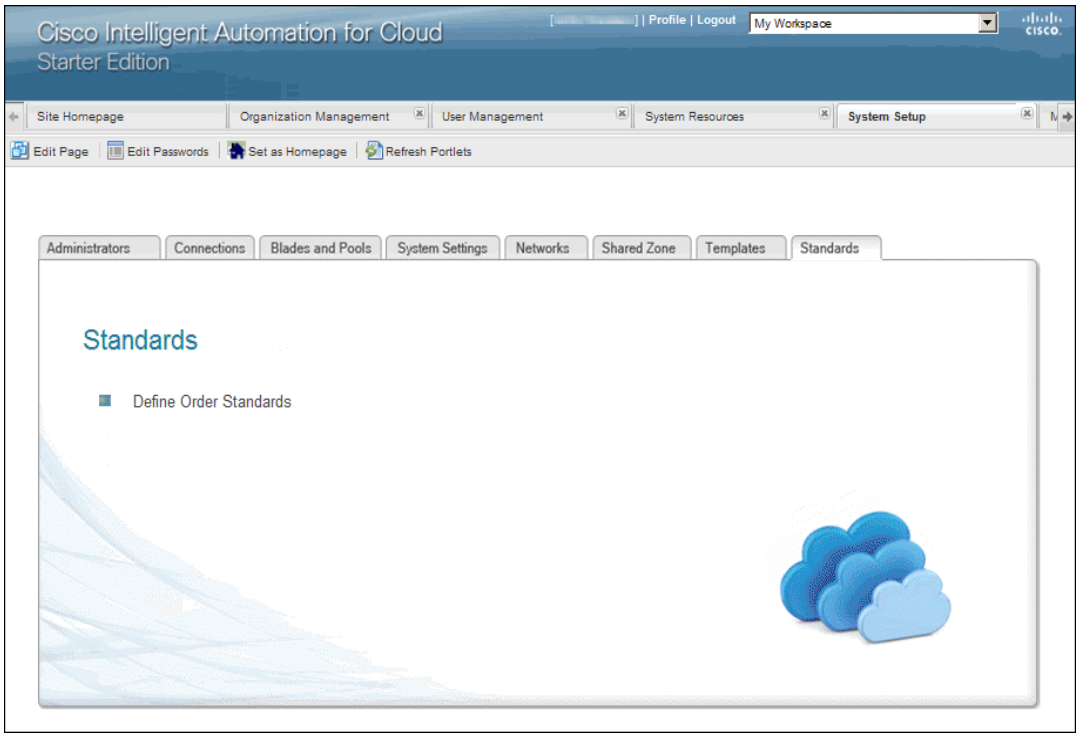
- Add a New Lease Term Standard, page 5-5
- Modify a Lease Term Standard, page 5-7
- Delete a Lease Term Standard, page 5-8

Add a New Lease Term Standard

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal page, click the **Standards** tab.

Figure 5-3 Standards Portlet



Step 3 In the Standards portlet, click **Define Order Standards**.

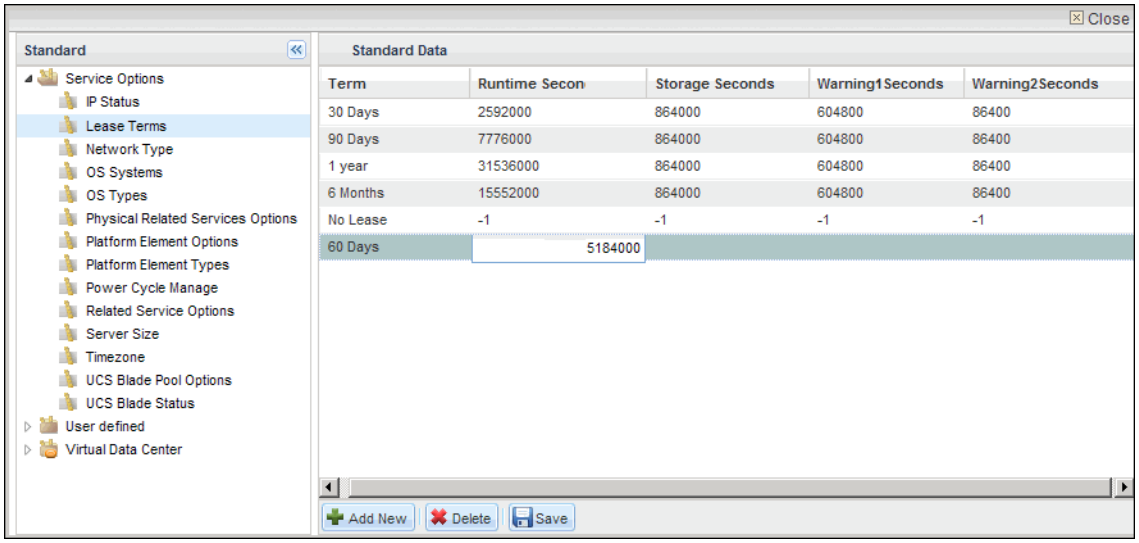
Step 4 Click **Lease Terms** in the Service Options folder on the left.

Step 5 Click **Add New**. An empty row appears.

Step 6 In the Standard Data table, click inside the Term field in the new row and enter a label for a unit of time (for example, 60 days). This entry will appear to users in the drop-down list on the order forms.

Note It is recommended that you avoid using months, because the numbers of days in months vary. Because lease durations are defined in seconds, and the seconds values would not be consistent from month to month. It is recommended that you use four-week units instead of months.

Figure 5-4 Add a Standard—Lease Term



Step 7 Click inside the Runtime Seconds field and enter the number of seconds in the Term duration you defined in Step 5. Do not include commas in the value.

The Runtime Seconds value must match the Term you have entered. For example, the runtime value for a 60-day lease term is 5184000 seconds. Use the figures in the following table to calculate the Term duration in seconds.

Duration	Runtime Value (Seconds)
12 hours	43200
1 day	86400
7 days	604800
28 days	2419200
180 days (about 6 months)	15552000
365 days (1 year)	31536000

Step 8 In the Storage Seconds field, enter the amount of time, in seconds, during which the decommissioned server is held in storage. When this defined storage duration expires, the server will be deleted.

Note The suggested Storage Seconds value is 864000, or 10 days.

Step 9 In the Warning1Seconds field, enter the amount of time, in seconds, before the lease expiration date when the first notification of expiration is automatically sent to the server owner.

Note The suggested Warning1Seconds value is 604800, or 7 days before lease expiration.

Step 10 In the Warning2Seconds field, enter the amount of time, in seconds, before the lease expiration date when the second notification of expiration is automatically sent to the server owner.

Note Depending on the width of your screen, you may need to scroll to the right to see the Warning2Seconds field.

Note The suggested Warning2Seconds value is 86400, or 1 day before lease expiration.

Step 11 Click **Save**.

Modify a Lease Term Standard

Note The Term label and the Runtime Seconds value **must** match. Do not modify either without modifying the other.

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal page, click the **Standards** tab.

Step 3 In the Standards portlet (Figure 5-3 on page 5-5), click **Define Order Standards**.

Step 4 Click **Lease Terms** in the Service Options folder on the left.

Step 5 In the Standard Data column, click inside the Term field in the appropriate row and change the label (for example, 8 weeks). This entry will appear to users in the drop-down list on the order forms.

Note It is recommended that you avoid using months, because the numbers of days in months vary. Because lease durations are defined in seconds, and the seconds values would not be consistent from month to month. It is recommended that you use four-week units instead of months.

Step 6 Use the figures in the table Step 7 of Add a New Lease Term Standard, page 5-5, to calculate a duration in seconds.

Note The runtime must match the number of seconds in the Term you have entered. Do not include commas in the value.

Step 7 For Storage Seconds, Warning1Seconds, and Warning2Seconds, you can change the values, or accept the default values:

- Storage Seconds—864000 (10 days)
- Warning1Seconds—604800 (7 days)
- Warning2Seconds—86400 (1 day)

Note Depending on the width of your screen, you may need to scroll to the right to see the Warning2Seconds field.

Step 8 Click **Save**.

Delete a Lease Term Standard

Note Do not delete or modify the No Lease standard unless you want to enforce leases on servers. If you delete the No Lease standard, users will not be able order servers without leases.

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal page, click the **Standards** tab.

Step 3 In the Standards portlet (Figure 5-3 on page 5-5), click **Define Order Standards**.

Step 4 Click **Lease Terms** in the Service Options folder on the left.

Step 5 In the Standard Data column, click inside the Term field for the standard that you want to delete.

Step 6 Click **Delete**, and then confirm the deletion.

Step 7 Click **Save**.

Add, Modify, or Delete an Operating System Standard

Starter Edition ships with five pre-defined operating system standards that users can choose when commissioning virtual machines with operating systems installed and that administrators use to register VM templates:

- Linux—CentOS 5/6 64-bit
- Linux—Red Hat Enterprise Linux 6 64-bit
- Windows—Windows Server 2008 R2 64-bit
- VMware ESXi—ESXi 4.1
- ESXi—ESXi 5.0

You can accept or modify default operating system standards, and add new standards.

This section provides instructions for the following modifications:

- Add an Operating System Standard, page 5-9
- Modify an Operating System Standard, page 5-10
- Delete an Operating System Standard, page 5-10

Add an Operating System Standard

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

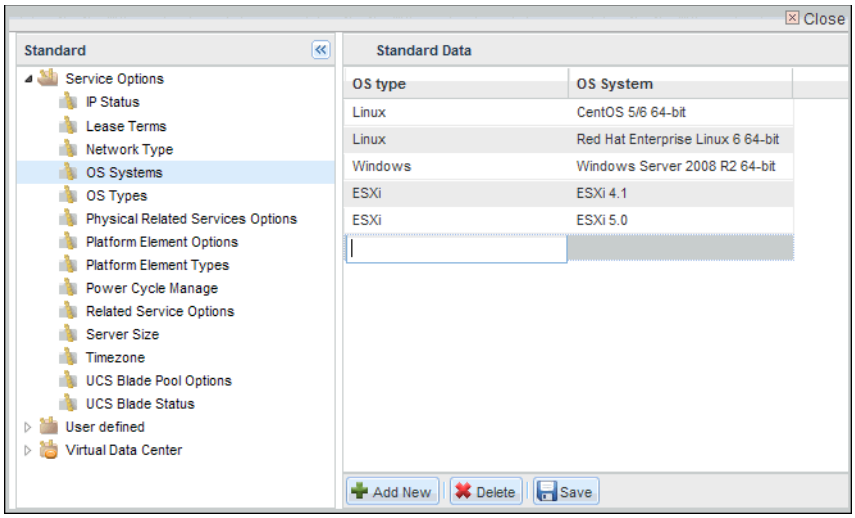
Step 2 On the System Setup portal page, click the **Standards** tab.

Step 3 In the Standards portlet (Figure 5-3 on page 5-5), click **Define Order Standards**.

Step 4 Click **OS Systems** in the Service Options folder on the left.

Step 5 Click **Add New**. An empty row appears.

Figure 5-5 Add a Standard—Operating Systems



Step 6 In the Standard Data column, click inside the OS Type field in the new row and enter the OS Type (Windows, Linux, or VMware ESXi). This entry will appear to users in drop-down lists on the order forms.

Step 7 In the OS System field, enter the name of the operating system and the version number.

Step 8 Click **Save**.

Modify an Operating System Standard

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal page, click the **Standards** tab.

Step 3 In the Standards portlet (Figure 5-3 on page 5-5), click **Define Order Standards**.

Step 4 Click **OS Systems** in the Service Options folder on the left.

Step 5 In the Standard Data column, click inside the OS System field in the new row and edit the value.

Step 6 Click **Save**.

Delete an Operating System Standard

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal page, click the **Standards** tab.

Step 3 In the Standards portlet (Figure 5-3 on page 5-5), click **Define Order Standards**.

Step 4 Click **OS Systems** in the Service Options folder on the left.

Step 5 In the Standard Data column, click inside the OS System field for the standard that you want to delete.

Step 6 Click **Delete**, and then confirm the deletion.

Step 7 Click **Save**.

Add, Modify, or Delete a Server Size Standard

Starter Edition ships with four pre-defined server size standards that users can choose when commissioning servers: Small, Medium, Large, and Extra Large. Each standard defines the CPU, Memory GB, and Storage GB, as shown in Table 5-1.

Table 5-1 Default Server Sizes

Server Size	CPUs	Memory (GB)	Storage (GB)
Small	2	2	20
Medium	4	2	60
Large	6	4	80
Extra Large	8	16	60

You can accept, modify, or delete a server size standard, and you can add a new standard.

This section provides instructions for the following modifications:

- Add a Server Size Standard, page 5-11
- Modify a Server Size Standard, page 5-12
- Delete a Server Size Standard, page 5-12

Add a Server Size Standard

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

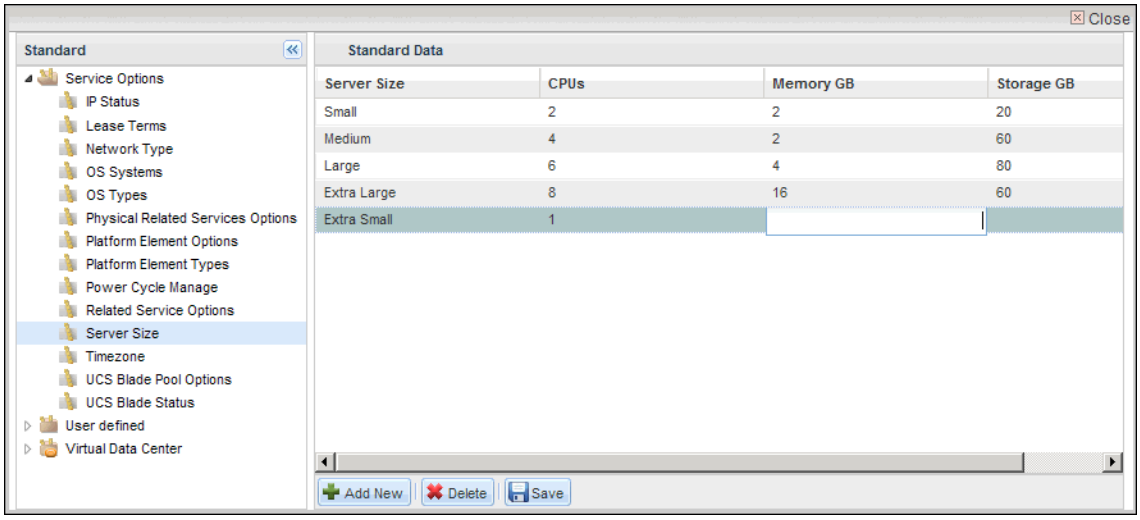
Step 2 On the System Setup portal page, click the **Standards** tab.

Step 3 In the Standards portlet (Figure 5-3 on page 5-5), click **Define Order Standards**.

Step 4 Click **Server Size** in the Service Options folder on the left.

Step 5 Click **Add New**. An empty row appears.

Figure 5-6 Add a Standard—Server Size



Step 6 In the Standard Data column, click inside the Server Size field in the new row and enter the a label for the new size (for example, Extra Small). This entry will appear to users in drop-down lists on the order forms.

Step 7 Enter the values for CPUs, Memory GB, and Storage GB in the appropriate fields.

Note Depending on the width of your screen, you may need to scroll to the right to see the Storage GB field.

Step 8 Click **Save**.

Modify a Server Size Standard

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal page, click the **Standards** tab.

Step 3 In the Standards portlet (Figure 5-3 on page 5-5), click **Define Order Standards**.

Step 4 Click **Server Size** in the Service Options folder on the left.

Step 5 In the Standard Data table, click in any of the fields to set new values.

Step 6 Click **Save**.

Delete a Server Size Standard

Step 1 Choose **My Workspace** from the module drop-down list, and then click the **System Setup** tab.

Step 2 On the System Setup portal page, click the **Standards** tab.

Step 3 In the Standards portlet (Figure 5-3 on page 5-5), click **Define Order Standards**.

Step 4 Click **Server Size** in the Service Options folder on the left.

Step 5 In the Standard Data column, click inside the Server Size field for the standard that you want to delete.

Step 6 Click **Delete**, and then confirm the deletion.

Step 7 Click **Save**.

Modifying a Service Item

Modify the attributes of a service item. For example, for a Cisco UCS Blade, you can change the blade and chassis numbers and the UCS Manager.

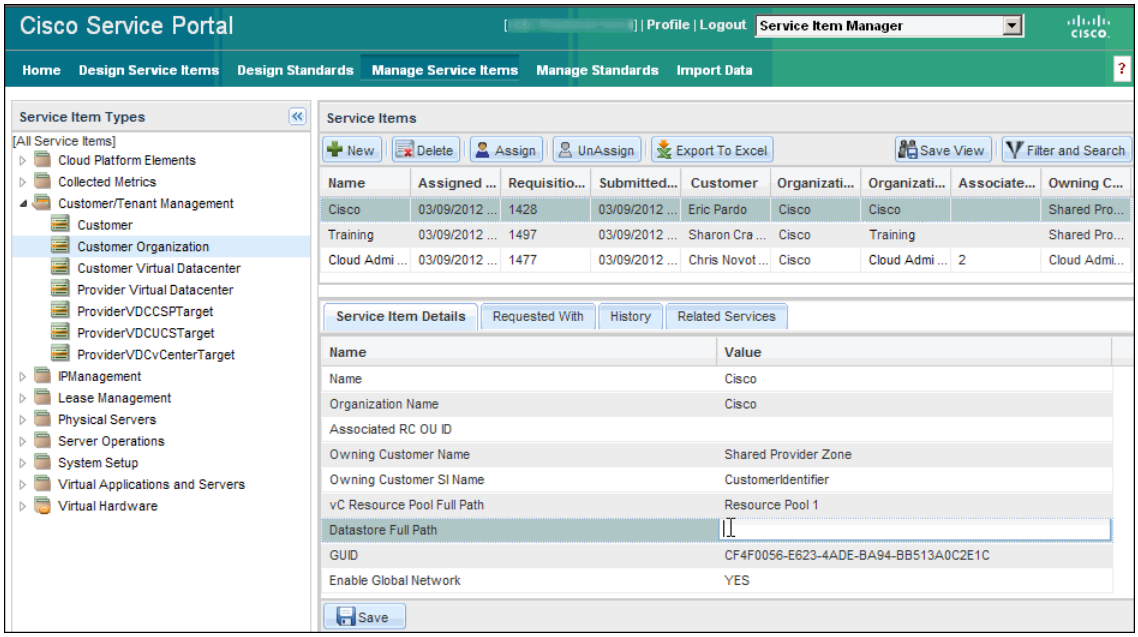
Note Service item names cannot be changed.

Step 1 Choose **Service Item Manager** from the module drop-down list and then click the **Manage Service Items** tab.

Step 2 In the Service Items panel on the Manage Service Items portal (Figure 2-10 on page 2-12), expand any of the service item group folders to locate the service item whose attributes that you want to modify, and then click the service item name.

Step 3 To edit an attribute, click inside its field in the Service Item Definition panel and enter your modification.

Figure 5-7 Modify a Service Item



Step 4 Click **Save**.

Step 5 Repeat Step 2 through Step 4 for every service item that you want to modify.

Managing Server Leases

A server lease is a time period after which an active server is automatically decommissioned. Leases are optional and can be set when you order a server. Server leases are optional.

At the end of the lease term, the server is decommissioned automatically. There are two successive expiration dates:

- Lease Expiration—The server is powered down—but not deleted. Any stored data is preserved but cannot be accessed by users unless the lease is extended (see Extend or Remove a Server Lease, page 5-16).
- Storage Lease Expiration—The server is permanently deleted and any stored data is lost.

Notify a User of Approaching Lease Expiration

Starter Edition provides two customizable email notification templates for notifying a user of an approaching expiration date:

- Lease Expiration - First Warning
- Lease Expiration - Section Warning

You can choose when each email notification is automatically sent. To view and modify the Lease Expiration - First Warning template for the user's organization, see Modifying a Default Email Notification Template, page 2-47.

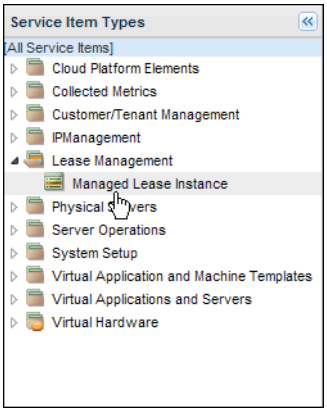
View Server Lease Information

View the expiration and storage expiration dates of a lease on a server.

Step 1 Choose **Service Item Manager** from the module drop-down list and then click the **Manage Service Items** tab.

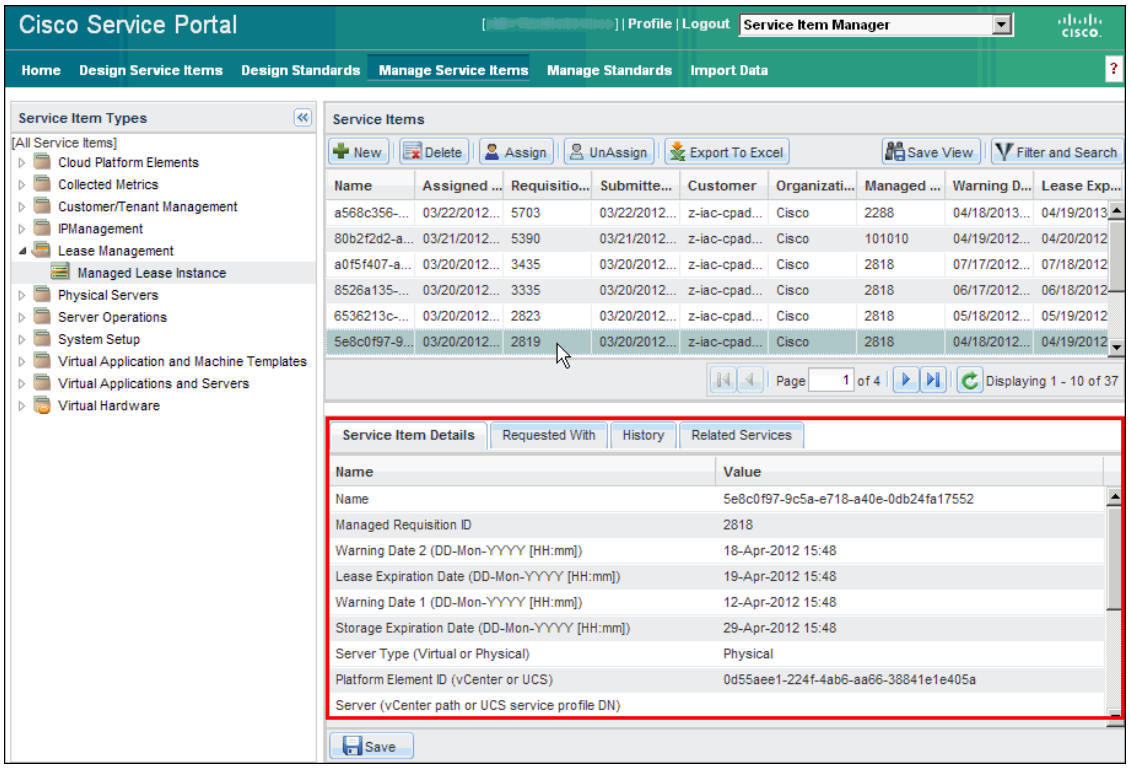
Step 2 In the Service Items Type panel on the Manage Service Items portal (Figure 2-10 on page 2-12), expand Lease Management, and click **Managed Lease Instance**.

Figure 5-8 Service Item Type—Managed Lease Instance



Step 3 To display details about a lease, click it in the Service Items table. Information about the lease appears in the Service Item Details panel.

Figure 5-9 Lease Details



Note You can customize the your table view to show or hide columns. For more information, see Customization of Table Views, page 1-11.

Extend or Remove a Server Lease

Extend the expiration date on which a server is decommissioned but is not deleted. You can extend a lease during the lease term or after lease expiration but before storage expiration.

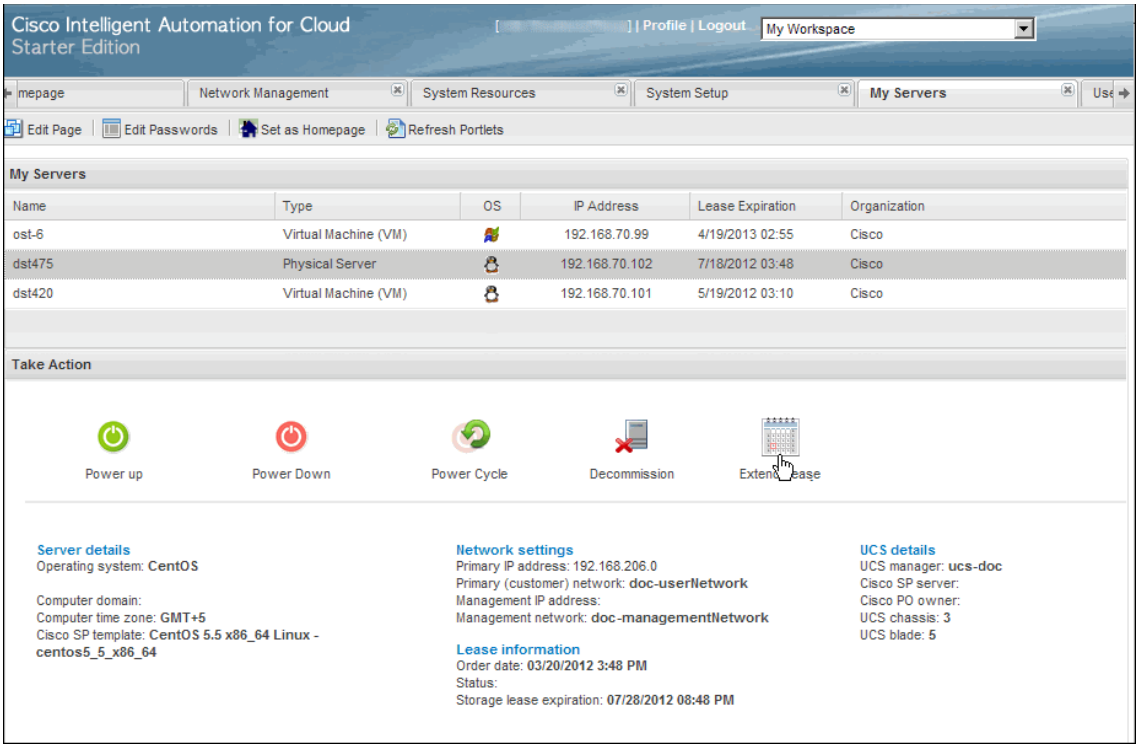
You can also remove an existing lease from a server without deleting or decommissioning it. By removing a lease, you are simply stopping the automatic decommission service.

Step 1 Choose **My Workspace** from the module drop-down list and then click **My Servers**.

Step 2 On the My Servers portal (Figure 2-1 on page 2-3), locate and click the server in the table.

Details about the server and icons for actions appear in the Take Action area.

Figure 5-10 Extend Lease



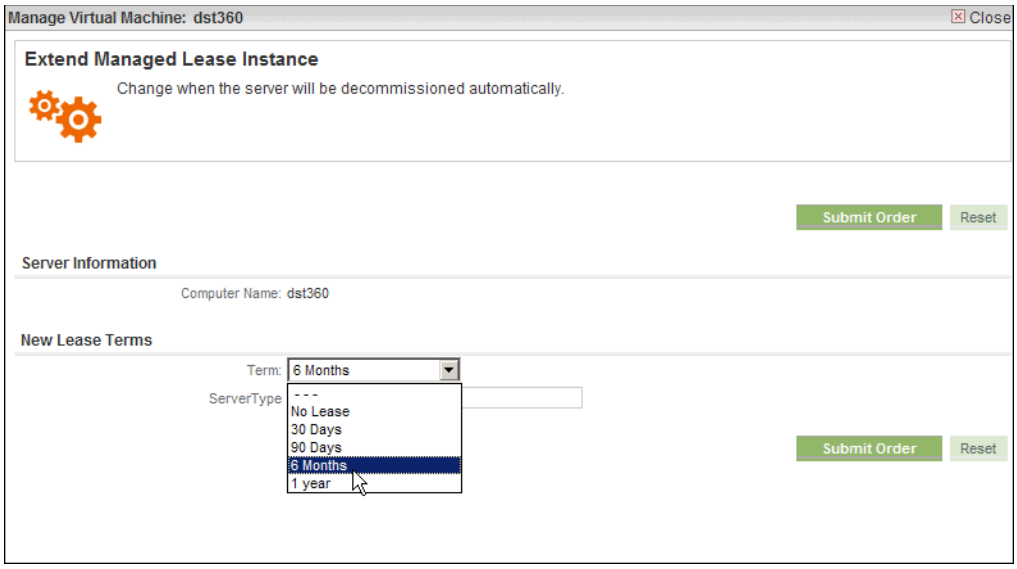
Step 3 Click the **Extend Lease** icon to open the Extend Managed Lease Instance form.

The name of the server and its expiration date appear on the form.

Step 4 From the **Term** drop-down list, choose the number of days that you want to add to the end of your lease term, or choose **No Lease** to remove the lease from the server.

- No Lease
- 30 days
- 90 days
- 6 months
- 9 months
- 1 year

Figure 5-11 Extend Lease Form



Step 5 Click **Submit Order**.

Handling Infrastructure Errors

As a Cloud Provider Technical Administrator, you are entrusted with maintaining the cloud system and ensuring maximal uptime.

If problems arise with fulfillment of a customer's requisition (for example, a new virtual machine), you receive an email notification error with action summary, links to the knowledge base, and other information you need to take corrective actions, inside or outside the system, and terminate a service, if necessary.

Service problems can arise in any of the following conditions:

- Blade error has disabled all VMs running on it
- Blade error has occurred on a physical blade
- Cisco UCS Manager, VMware vCenter, LDAP server, or blades in the physical pool have failed
- Connection is lost
- Capacity has reached the maximum limit

The notification will identify the failing service and provide any or all of the following information:

- Automation summary
- Steps you must take to fix the problem, such as:
  - Performing a roll-back and clean-up of the service to free up and reset associated resources, cancel the requisition, and re-order the service from Cloud Portal
  - Taking manual actions outside the system
  - Restarting the process from Cloud Portal
  - Cancelling certain actions in-flight if necessary
- Referral to a knowledge base article that provides tips and best practices that you can use to determine the actions to take to recover the process

After the correction, TEO automatically makes a second attempt to run the service. If the second attempt fails, you must cancel the order, and then notify the requester to resubmit the order.

Assign the Remediation Task for Repair

Note You must have Cloud Provider Technical Administrator permissions to perform this task.

When a service requires remediation, it is automatically added to the Cloud Service Remediation queue in Service Manager. You receive the notification of failure, and then assign yourself or someone else to address the issue.

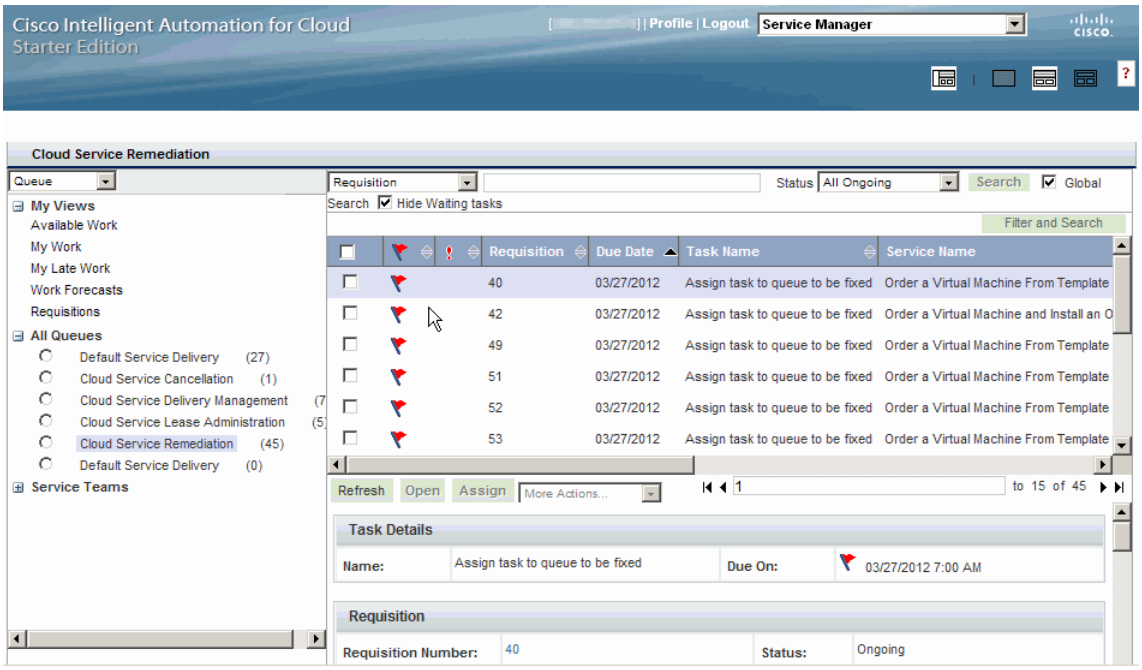
View the Cloud Service Remediation queue and assign a task using the following steps:

Step 1 Choose **Service Manager** from the module drop-down list.

Step 2 In the left navigation panel on the Service Manager Home page, expand All Queues in the tree on the left-hand side, and then click the *name* **Cloud Service Remediation**.

Unassigned tasks appear in a list.

Figure 5-12 Cloud Service Remediation Queue



Tip You can change the view of Service Manager using buttons located on the right-hand side under the module drop-down list. Click to show or hide the tree. Click to hide the tree, preview panels, and show only the list. Click (default view) to show a split view list and preview panels, without the tree. Click to show the preview panels only. Service Manager does not save your views.

Step 3 In the Cloud Service Remediation queue list, click the requisition number.

Display-only summaries of the task and requisition appear under the Cloud Service Remediation queue list.

Step 4 Assign the task:

- To assign the task to yourself, choose **Check Out** from the More Actions drop-down list. The task is moved to the My Work view in the left navigation panel.
- To assign the task to someone else, expand Service Teams in the tree on the left-hand side, and then the team to which the user belongs, click the radio button by the user's name, and then click **Assign**. The task is moved to the selected person's My Work view; the person is notified of the assignment.

After the task is assigned, the assignee must first check out the task from the Cloud Service Remediation queue before fixing the failure. Proceed to Remediating a Service.

Remediating a Service

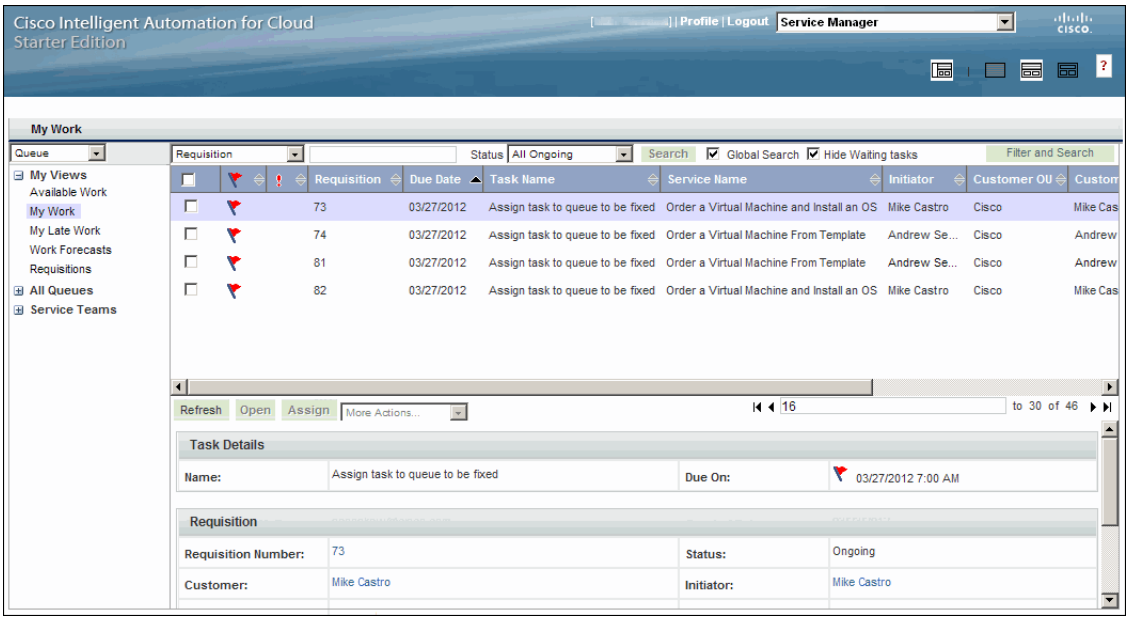
After you have checked out the task (see Assign the Remediation Task for Repair) from the Cloud Service Remediation queue, you then remediate the issue and initiate continuation of the fulfillment process.

Caution To free up the reserved resources, you *must* attempt to remediate the issue, even if you know or suspect the attempt will fail. **Do not cancel the order unless your attempt to remediate the issue is unsuccessful**.

Step 1 Choose **Service Manager** from the module drop-down list.

Step 2 In the tree on the left-hand side, on the Service Manager Home page, and click **My Work**.

Figure 5-13 Service Manager—My Work



Step 3 Click the requisition number in the Requisition column to view the Task Data page (Figure 5-14 on page 5-22), which provides detailed information about the task, including:

- Error code
- Error Description
- Automation summary URL
- Service information
- Server
- Customer organization
- vCenter or UCS targets

Links in the right-hand menu provide further information.

Caution *Do not click* **Cancel** *on any of these task detail pages*. If you click **Cancel**, you will terminate the service, which will require you to contact Cisco Support for assistance with removing resource reservations from Service Item Manager.

Step 4 Review the information, and make note of the error code, error description, and automation summary URL for later reference.

Note For error code definitions, see the Cisco Intelligent Automation for Cloud Starter Edition Knowledge Base.

Step 5 Perform the necessary steps to remediate the issue.

Step 6 After remediating the issue, return to the Task Data form (see Step 3), and then click **Done**. This action changes the status of the task to Complete, and initiates continuation of the fulfillment process.

If the delivery process is successful, proceed to the next section, Checking the Status of an Order.

If the delivery process is *not* successful, the requisition will appear in the Cloud Service Cancellation queue. Skip to Cancelling the Order if Remediation Attempt is Unsuccessful, page 5-22.

Checking the Status of an Order

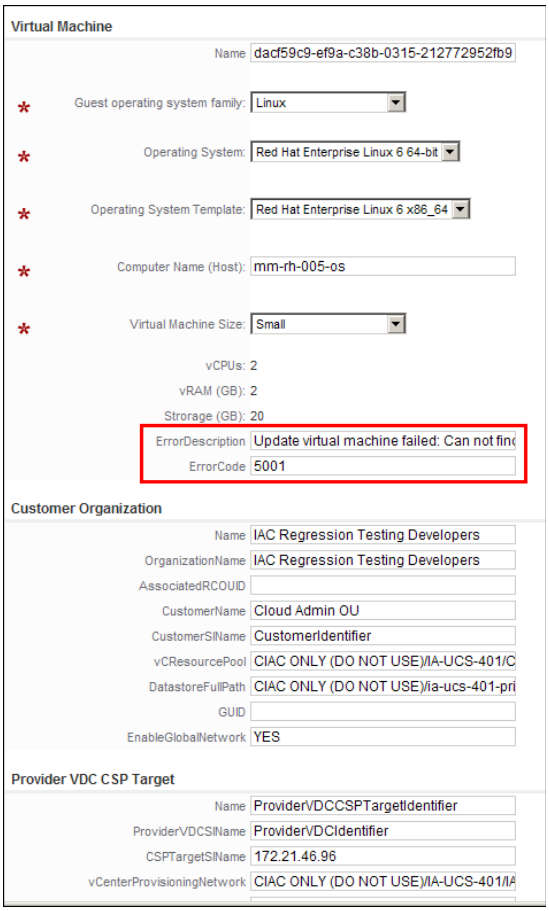
If the delivery process is successful, then the ordered service will be fulfilled and the requisition status changed to Complete, and no further action is needed. To check the status:

Step 1 Return to the Service Manager Home page and click **Cloud Service Delivery Management** under All Queues in the left-hand panel.

Step 2 Locate the requisition in the queue, and then click the requisition number to open the Task Data page.

The status is listed in the Service Information panel.

Figure 5-14 Task Data



Cancelling the Order if Remediation Attempt is Unsuccessful

Caution To free up the reserved resources, you *must* attempt to remediate the issue before cancelling the order, as instructed in Remediating a Service, even if you know or suspect the attempt will fail. Cancel the order *only* if your remediation attempt is unsuccessful.

If your attempt to remediate the issue fails to complete the service, you must terminate the service to release the resources that may be tied up by the stalled process.

Step 1 On the Service Manager Home page, click **Cloud Service Cancellation** under All Queues in the left-hand panel.

Step 2 Locate the requisition in the queue, and then click the requisition number to open the Task Data page.

Step 3 Click **Cancel**. This action terminates the order and change service status to Cancel.

APPENDIX A

Constructing Paths Using Cisco UCS Manager and VMware vSphere

This appendix provides guidelines for determining paths for input when setting up and configuring resources in Cisco Cloud Portal.

Note To follow the instructions in this appendix, you must have access to Cisco UCS Manager and VMware vSphere Client.

Cisco UCS Paths

Cisco UCS paths always adhere to the following conventions:

- For most resources, the path begins at the root organization.

  Note The exception to this convention are VLANs, which have no "path"; when referring to a UCS VLAN, you only need to provide the name of the VLAN.

- The root organization and sub-organization names are prepended by *org-*, e.g., *org-root* or *org-cpta*.

  Note The resource is never prepended by *org-*.

- For all service profiles, the resource is prepended by *ls-*. This applies only to service profiles.

A Cisco UCS path is constructed as shown in the following example:

org-root/org-sub-organization1/org-sub-organization2/resource

A path for a UCS service profile is constructed in the same manner; however, the resource is prepended by *ls-*, as shown in the following example:

Service profile: org-root/org-sub-organization1/org-sub-organization2/ls-resource

Note The number of sub-organizations will vary, depending on the directory structure in your Cisco UCS environment.

To find the path to a resource using Cisco UCS Manager, perform the following steps.

Step 1 Open Cisco UCS Manager and log in.

Step 2 In the tree, click the **Servers** tab to display the Servers view.

Step 3 Expand the resource set (e.g., Service Profiles or Pools) to which the resource belongs, expand the root organization, and then locate the resource in one of the sub-organizations.

Note In UCS Manager, organizations and sub-organizations are identified by the  icon.

Step 4 Construct the path, beginning with *org-root*, then adding each subsequent sub-organization with the prepended *org-*, down to the resource. Separate each with forward slashes.

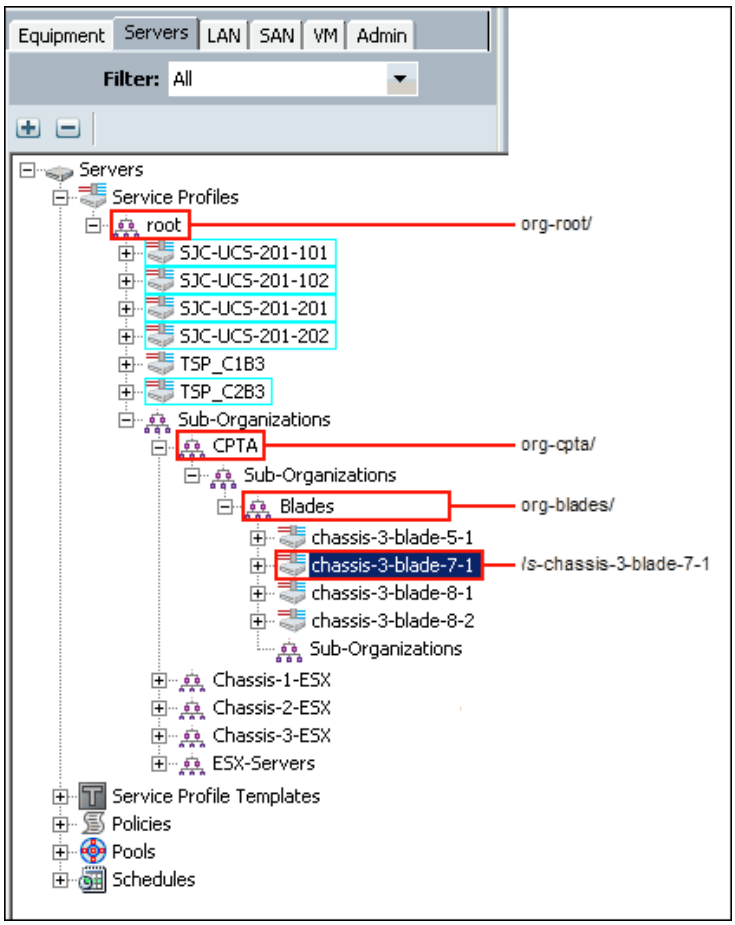
See the example on the next page.

Example

Figure A-1 illustrates how to determine the Cisco UCS path for an example Cisco UCS blade, *chassis-3-blade-7-1*, which is located in a sub-organization of the Service Profiles root organization. Because it is a service profile, the blade resource

The resulting path is *org-root/org-cpta/org-blades/ls-chassis-3-blade-7-1*. Note that the two levels containing the root are not included in the path, and that because the resource is a service profile, its name is prepended by *-ls* in the path.

Figure A-1 UCS Manager—Servers View



VMware vCenter Paths

Paths to vCenter resources (datastores, networks, and hosts and clusters) are constructed according to the following convention, where object1 is the datacenter name:

object1/object2/object3/resource

The path never includes the top-level (server).

Note The number of objects will vary, depending on the directory structure in your vCenter environment.

Step 1 Open VMware vSphere Client and log in.

Step 2 Choose **Datastores**, **Networks**, or **Hosts and Clusters** from the Inventory drop-down list to view the set of resources where the resource resides.

Step 3 Expand the server in the tree, and then drill down to the resource.

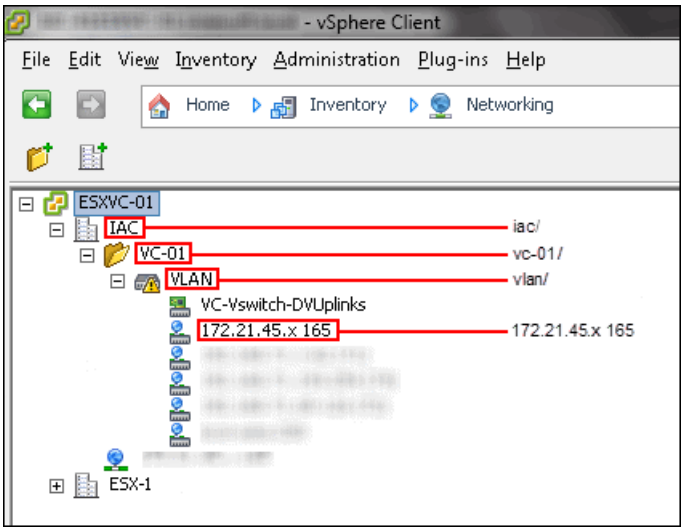
Step 4 Construct the path, beginning with the server name as it appears in the Client and drilling down to the resource. Separate each object with forward slashes.

See the example below.

Example

Figure A-2 illustrates how to construct the path in VMware vSphere Client for an example network, *172.21.45.x 165*. The resulting path is *iac/vc-01/vlan/172.21.45.x 165*. Note that the server at the top-level, ESXVC-01, is not included in the path.

Figure A-2 VMware vSphere Client—Networking View



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