Managing Virtual Data Centers

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Virtual Data Centers

A Virtual Data Center (VDC) is a logical grouping that combines virtual resources, operational details, rules, and policies to manage specific group requirements.

A group or organization can manage multiple VDCs, images, templates, and policies. Organizations can allocate quotas and assign resource limits for individual groups at the VDC level.

You can also define approvers specific to a VDC. The approvers assigned to a particular VDC must approve all service requests from users for VM provisioning.

Note There is a default VDC in Cisco UCS Director, and all discovered VMs are part of this default VDC. Discovered VMs are VMs that are created outside of Cisco UCS Director or were already created on VMware vCenter before Cisco UCS Director was installed. Cisco UCS Director automatically discovers such VMs and adds them to the default VDC.

A VM that is provisioned using a service request can be associated with a specific VDC. When you create a service request, you can choose the VDC on which this VM is provisioned. You can view a list of the VDCs that are available for a particular group and choose the required VDC when provisioning VMs.

VDC Actions

Adding a Virtual Data Center

Procedure

Step 1 Choose **Policies** > **Virtual/Hypervisor Policies** > **Virtual Data Centers**.

Step 2 On the **Virtual Data Centers** page, click **VDC**.

Step 3 Click **Add**.

Step 4 On the **VDC Add** screen, select an account type from the drop-down list.
The account type that you select determines the list of cloud names that are displayed on the **Add VDC** screen.

Step 5 Click **Submit**.

Step 6 On the **Add VDC** screen, complete the following fields:

Name	Description
VDC Name field	The name of the VDC. You can include special characters such as ( ). & - _ `~ $% ^ {}! ' @ **Note** A name cannot be edited after it is entered.
VDC Locked check box	Check the check box to deny the use of the VDC for any further deployments. Uncheck the check box to allow the use of the VDC for further deployments.
VDC Description field	The VDC-specific description.
Group drop-down list	Click **Select** to check the check box of the group for which the VDC is being set up.
Cloud Name drop-down list	Choose the cloud on which the VDC is being set up. The options available in this drop-down list are determined by the account type you specified.
Approvers and Contacts	
First Level Approver(s) field	The users who must approve the service request at the first level. Click **Select** and check the check boxes of the users. You can select multiple users.

Name	Description
Second Level Approver(s) field	The users who must approve the service request at the second level. Click **Select** and check the check boxes of the users. You can select multiple users.
Approval Required from all users check box	Check this check box to indicate that approval is required from all users who have been selected as first-level and second-level approvers.
Number of Approval Requests Reminders field	The number of times the reminder email to approve the service request is sent to the approvers. By default, the system sends a reminder email once in every 24 hours until the service request is approved or rejected.
Reminder Interval (Hours) field	The time interval between the reminder emails that are sent to the approvers. By default, the system sends a reminder email every 24 hours.
Provider Support Email Address field	The contact or user's email address. The person who is notified about VM provisioning using this VDC.
Copy Notifications to Email Address field	The second contact's email address for copying notifications about this VDC.
Policies	
System Policy drop-down list	Choose the system policy applicable to the VDC.
Computing Policy drop-down list	Choose the computing policy applicable to the VDC.
Network Policy drop-down list	Choose the network policy applicable to the VDC.
Storage Policy drop-down list	Choose the storage policy applicable to the VDC.
ISO Image Mapping Policy drop-down list	Choose the ISO image mapping policy applicable to the VDC.
Cost Model drop-down list	Choose the cost model applicable to the VDC.

Name	Description
Disable displaying cost details check box	Check the check box to disable displaying cost details in the following pages for this VDC: • Create Service Request wizard The cost information is not displayed in the **Deployment Configuration** pane, **Custom Specification** pane and the **Summary** pane. • Specific VM action pages - VM resize, Resize VM disk, and Create VM disk. • Email notifications
User Action Policy drop-down list	Choose the policy that is used for execution of orchestration workflow post provisioning of the VMs. The chosen workflow appears as an action button for VMs within the VDC.
VM Management Policy drop-down list	Choose the VM management policy for the VDC. This policy defines how VMs are managed in the VDC.
Enable Storage Efficiency check box	Check the check box to clone the VM using RCU. This option is only available for some VDC types.
End User Self-Service Policy	Select a self-service policy for the VDC. The policy defines the tasks or actions that can be performed on the VDC. **Note** This drop-down list is populated with policies that are relevant to the account type that you are creating the VDC for. The tasks that a user can perform on a VDC are defined by the role that the user is mapped to and by the end user self-service policy assigned to the VDC. If you have upgraded to the current release, then the permissions to perform VM management tasks are retained in any pre-existing end user self-service policy. However, the permissions defined in the user role to which the user belongs takes precedence.

Step 7 Click **Add**.

Note The following tasks can no longer be performed by users on a VM:

- Migrate a VM
- Use Stack View
- Assign a VM

What to Do Next

After adding a VDC, you can edit, clone, or delete it by selecting the respective option in the user interface.

Viewing a Virtual Data Center

Procedure

Step 1 Choose **Policies** > **Virtual/Hypervisor Policies** > **Virtual Data Centers**.
Step 2 On the **Virtual Data Centers** page, choose the VDC group.
Step 3 On the **Virtual Data Centers** page, click **VDC**.
Step 4 Click the row with the VDC that you want to view.
Step 5 Click **View** to open the **VDC Details** screen.

Managing Application Categories in a Virtual Data Centers

Procedure

Step 1 Choose **Policies** > **Virtual/Hypervisor Policies** > **Virtual Data Centers**.
Step 2 On the **Virtual Data Centers** page, choose the VDC group.
Step 3 On the **Virtual Data Centers** page, click **VDC**.
Step 4 Click the row with the VDC that you want to edit.
Step 5 Click **Manage Categories**.
Step 6 On the **Edit App Category** screen, edit the appropriate fields that apply to modify the system policy, computing policy, network policy, or storage policy. You can also change the cost model and the smart allocation policy.
Step 7 Click **Save**.

Assigning an Application Category to Multiple VDCs

You can assign application categories to multiple VDCs.

Procedure

Step 1 Choose **Virtual** > **Compute**.

Step 2 On the **Compute** page, choose the cloud.

Step 3 On the **Compute** page, click **Application Categories**.

Step 4 Click the row with the application category that you want to assign to one or more VDCs.

Step 5 Click **Assign App Category**.

Step 6 On the **Assign Application Category** screen, click + to map policies to multiple VDCs.
The **Assign Application Category** screen lists all the application categories that have been previously assigned to VDCs. You can select an assigned application category, and either edit it or delete it from the VDC.

Step 7 On the **Add Entry to Map Policies to Multiple VDCs** screen, complete the following fields:

Name	Description
Policies	
System Policy drop-down list	Choose a system policy from the drop-down list.
Computing Policy drop-down list	Choose a computing policy from the drop-down list.
Storage Policy drop-down list	Choose a storage policy from the drop-down list.
Smart Allocation Policy drop-down list	Choose a smart allocation policy from the drop-down list.
Network Policy drop-down list	Choose a network policy from the drop-down list.
Cost Model drop-down list	Choose a cost model from the drop-down list. All cost models for the cloud are displayed in this drop-down list.
VDC	
Select VDCs field	Click **Select** to check the check boxes of the VDCs that you want to map the policies to. **Note** The system displays VDCs that are part of the cloud you selected. If the VDC you selected has policies mapped to it previously, a warning message is displayed.
Overwrite policies for mapped VDCs check box	Check this check box to overwrite policies that have been previously mapped to the VDC you selected.

Step 8 Click **Submit**.

Step 9 On the **Assign Application Category** screen, click **Submit**.

Virtual Data Center Service Profiles

A Virtual Data Center Service Profile is similar to a VDC. However, you only need to create a VDC service profile if you plan to create VDCs from workflow tasks, such as Gold, Silver, and Bronze VDCs.

Adding a Virtual Data Center Service Profile

Procedure

Step 1 Choose **Policies** > **Virtual/Hypervisor Policies** > **Virtual Data Centers**.

Step 2 On the **Virtual Data Centers** page, click **VDC Service Profiles**.

Step 3 Click **Add**.

Step 4 On the **Add VDC Service Profile** screen, complete the following fields:

Name	Description
VDC Profile Name field	The name of the VDC profile. A name cannot be edited after it is entered.
VDC Locked check box	Check the check box to deny the use of the VDC for any further deployments. Actions on existing VMs, within this VDC, are disabled. Uncheck the check box to allow the use of the VDC for further deployments.
VDC Description field	The VDC-specific description.
Group drop-down list	Choose the group for which the VDC is being set up.
Cloud Name drop-down list	Choose the cloud on which the VDC is being set up.
Approvers and Contacts	
First Approver User Name field	The users who must approve the service request at the first level. Click **Select** and check the check boxes of the users. You can select multiple users.

Name	Description
Second Approver User Name field	The users who must approve the service request at the second level. Click **Select** and check the check boxes of the users. You can select multiple users.
Approval Required from all users check box	Check this check box to indicate that approval is required from all users who have been selected as first-level and second-level approvers.
Number of Approval Requests Reminders field	The number of times the reminder email to approve the service request is sent to the approvers. By default, the system sends a reminder email once in every 24 hours until the service request is approved or rejected.
Reminder Interval (Hours) field	The time interval between the reminder emails that is sent to the approvers. By default, the system sends a reminder email every 24 hours.
Provider Support Email Address field	The contact or user's email address. The person who is notified about VM provisioning using this VDC.
Copy Notifications to Email Address field	The second contact's email for copying notifications about this VDC.
Policies	
System Policy drop-down list	Choose the system policy applicable to the VDC service profile.
Computing Policy drop-down list	Choose the computing policy applicable to the VDC service profile.
Network Policy drop-down list	Choose the network policy applicable to the VDC service profile.
Storage Policy drop-down list	Choose the storage policy applicable to the VDC service profile.
Cost Model drop-down list	Choose the cost model applicable to the VDC service profile.
Disable displaying cost in the SR summary and email page check box	Check the check box to disable displaying cost in the SR summary and email page for this VDC service profile.

Name	Description
User Action Policy drop-down list	Choose the policy that is used for execution of orchestration workflow after provisioning of the VMs. The chosen workflow appears as an action button for VMs within the VDC.
End User Self-Service Options	
VM Power Management check box	Check the check box to enable all VM power management actions for VMs that belong to this VDC.
VM Resize check box	Check the check box to enable the VM resize action for VMs that belong to this VDC.
VM Snapshot Management check box	Check the check box to enable all storage snapshot actions for VMs in this VDC.
VM Deletion check box	Check the check box to enable the VM delete action for VMs in this VDC.
VM Disk Management check box	Check the check box to enable the VM disk management for VMs in this VDC.
VM Network Management check box	Check the check box to enable network management for the VM that belongs to this VDC.
Delete after Inactive VM days drop-down list	Choose the number of days to wait before deleting an inactive VM. The VM in the inactive state is when it is not in the power-on state.

Step 5 Click **Add**.