Configuring Tenants

This chapter includes the following sections:

Tenant Management

Tenant Management and Multi-tenancy

Cisco VNMC provides the ability to achieve multi-tenancy. Multi-tenancy enables the division of large physical infrastructures into logical entities called organizations. As a result, you can achieve logical isolation between organizations without providing a dedicated physical infrastructure for each organization.

The administrator can assign unique resources to each tenant through the related organization in the multi-tenant environment. These resources can include different policies, pools, device profiles, firewalls and such. The administrator can use locales to assign or restrict user privileges and roles by organization if access to certain organizations need to be restricted.

Cisco VNMC provides a strict organizational hierarchy as follows:

1 Root

2 Tenant

3 Data Center

4 Application

5 Tier

The root can have multiple tenants. Each tenant can have multiple data centers. Each data center can have multiple applications, and each application can have multiple tiers.

The policies and pools created at the root level are systemwide and are available to all organizations in the system. However, any policies and pools created in an organization are only available to organizations that are below it in the same hierarchy.

For example, if a system has tenants named Company A and Company B, Company A cannot use any policies created in the Company B organization. Company B cannot access any policies created in the Company A organization. However, both Company A and Company B can use policies and pools in the root organization.

Name Resolution in a Multi-tenancy Environment

In a multi-tenant environment, Cisco VNMC uses the hierarchy of an organization to resolve the names of policies and resource pools. The steps Cisco VNMC takes to resolve the names of policies and resource pools are as follows:

1 Cisco VNMC checks the policies and pools for the specified name within an organization assigned to the device profile or security policy.

2 If the policy or pool is found, Cisco VNMC uses that policy.

3 If the policy or pool does not contain available resources at the local level, Cisco VNMC moves up the hierarchy to the parent organization and checks for a policy with the specified name. Cisco VNMC repeats this step until the search reaches the root organization.

Attention The object name reference resolution takes an object name and resolves an object from an organization container to the object with the same name which is closest in the tree up to the root of the tree. If an object with the specified name is not found, it uses a corresponding default object. For example, there is an SNMP policy under data center called MySNMP, and there is an SNMP policy in the tenant in the same tree that is also MySNMP. In this case, the user cannot explicitly select the MySNMP policy under tenant. If the user wants to select the SNMP policy under tenant, they must provide a unique name for the object in the given tree.

4 If the search reaches the root organization and an assigned policy or pool is not found, Cisco VNMC looks for a default policy or pool starting at the current level and going up the chain to the root level. If a default policy is found, Cisco VNMC uses it. If a policy is not available, a fault is generated.

Configuring Tenants

Creating a Tenant

Procedure

Step 1 In the **Navigation** pane, click the **Tenant Management** tab.

Step 2 In the **Navigation** pane, click the **root** node.

Step 3 In the **Work** pane, click the **Create Tenant** link.

Step 4 In the **Create Tenant** dialog box, complete the following fields:

Name	Description
Name field	The name of the Tenant. This name can be between 1 and 32 identifier characters. You can use alphanumeric characters including hyphen, underscore, dot, and colon. You cannot change this name after it is saved.
Description field	A description of the Tenant. This name can be between 1 and 256 identifier characters. You can use alphanumeric characters including hyphen, underscore, dot, and colon. You cannot change this name after it is saved.

Step 5   Click **OK**.

Editing a Tenant

Procedure

Step 1   In the **Navigation** pane, click the **Tenant Management** tab.

Step 2   In the **Navigation** pane, click the **root** node.

Step 3   Click the *Tenant_name* you want to edit.

Step 4   In the **Work** pane, click the **Sub-Elements** tab.

Step 5   In the **Work** pane, click the **Edit Tenant** link.

Step 6   In the **Edit** dialog box, modify description.

Step 7   Click **OK**.

Deleting a Tenant

⚠️

Attention   When you delete an organization, all data contained under the organization is deleted, including sub-organizations, compute firewalls, resource pools, and policies.

Procedure

Step 1	In the **Navigation** pane, click the **Tenant Management** tab.
Step 2	In the **Navigation** pane, click the **root** node.
Step 3	In the **Work** pane, click the **Sub-Elements** tab.
Step 4	Click the tenant you want to delete.
Step 5	Click the **Delete** link.
Step 6	In the **Confirm** dialog box, click **Yes**.

Configuring Data Centers

Creating a Virtual Data Center

Procedure

Step 1	In the **Navigation** pane, click the **Tenant Management** tab.
Step 2	In the **Navigation** pane, expand **root** > *Tenant_name* where you want to create a virtual data center.
Step 3	In the **Work** pane, click the **Create Virtual Data Center** link.
Step 4	In the **Create Virtual Data Center** dialog box, complete the following fields:

Name	Description
Name field	The name of the Virtual Data Center.
	This name can be between 1 and 32 identifier characters. You can use alphanumeric characters including hyphen, underscore, dot, and colon. You cannot change this name after it is saved.
Description field	A description of the Virtual Data Center.
	This name can be between 1 and 256 identifier characters. You can use alphanumeric characters including hyphen, underscore, dot, and colon. You cannot change this name after it is saved.

Step 5	Click **OK**.

Editing a Virtual Data Center

Procedure

Step 1 In the **Navigation** pane, click the **Tenant Management** tab.

Step 2 In the **Navigation** pane, expand **root** > *tenant_name*.

Step 3 In the **Work** pane, click the **Sub-Elements** tab.

Step 4 On the **Sub-Elements** tab, click the virtual data center you want to edit.

Step 5 Click the **Edit** link.

Step 6 In the **Edit** dialog box, modify the description.

Step 7 Click **OK**.

Deleting a Virtual Data Center

⚠️

Attention When you delete an organization, all data contained under the organization is deleted, including sub-organizations, compute firewalls, resource pools, and policies.

Procedure

Step 1 In the **Navigation** pane, click the **Tenant Management** tab.

Step 2 In the **Navigation** pane, expand **root** > *Tenant_name* where you want to delete a virtual data center.

Step 3 In the **Work** pane, click the **Sub-Elements** tab.

Step 4 In the **Work** pane, click the virtual data center you want to delete.

Step 5 Click the **Delete Virtual Data Center** link.

Step 6 In the **Confirm** dialog box, click **Yes**.

Configuring Applications

Creating an Application

Procedure

Step 1 In the **Navigation** pane, click the **Tenant Management** tab.

Step 2 In the **Navigation** pane, expand **root** > *Tenant_name* > *Virtual Data Center_name* where you want to create an application.

Step 3 In the **Work** pane, click the **Create Application** link.

Step 4 In the **Create Application** dialog box, complete the following fields:

Name	Description
Name field	The name of the Application. This name can be between 1 and 32 identifier characters. You can use alphanumeric characters including hyphen, underscore, dot, and colon. You cannot change this name after it is saved.
Description field	A description of the Application. This name can be between 1 and 256 identifier characters. You can use alphanumeric characters including hyphen, underscore, dot, and colon. You cannot change this name after it is saved.

Step 5 Click **OK**.

Editing an Application

Procedure

Step 1   In the **Navigation** pane, click the **Tenant Management** tab.

Step 2   In the **Navigation** pane, click the **root** > *Tenant_name* > *Virtual Data Center_name* where you want to edit an application.

Step 3   In the **Work** pane, click the **Sub-Elements** tab.

Step 4   Click the *Application_name* you want to edit.

Step 5   Click the **Edit** link.

Step 6   In the **Edit** dialog box, modify the description.

Step 7   Click **OK**.

Deleting an Application

⚠️

Attention   When you delete an organization, all data contained under the organization is deleted, including sub-organizations, compute firewalls, resource pools, and policies.

Procedure

Step 1   In the **Navigation** pane, click the **Tenant Management** tab.

Step 2   In the **Navigation** pane, expand **root** > *Tenant_name* > *Virtual Data Center_name* where you want to delete an application.

Step 3   In the **Work** pane, click the **Sub-Elements** tab.

Step 4   In the **Work** pane, click the application you want to delete.

Step 5   Click the **Delete Application** link.

Step 6   In the **Confirm** dialog box, click **Yes**.

Configuring Tiers

Creating a Tier

Procedure

Step 1 In the **Navigation** pane, click the **Tenant Management** tab.

Step 2 In the **Navigation** pane, expand **root** > *Tenant_name* > *Virtual Data Center_name* > *Application_name* where you want to create a tier.

Step 3 In the **Work** pane, click the **Create Tier** link.

Step 4 In the **Create Tier** dialog box, complete the following fields:

Name	Description
Name field	The name of the Tier. This name can be between 1 and 32 identifier characters. You can use alphanumeric characters including hyphen, underscore, dot, and colon. You cannot change this name after it is saved.
Description field	A description of the Tier. This name can be between 1 and 256 identifier characters. You can use alphanumeric characters including hyphen, underscore, dot, and colon. You cannot change this name after it is saved.

Step 5 Click **OK**.

Editing a Tier

Procedure

Step 1 In the **Navigation** pane, click the **Tenant Management** tab.

Step 2 In the **Navigation** pane, click the **root** node to expand.

Step 3 In the **Navigation** pane, click the *Tier_name* you want to edit.

Step 4 In the **Work** pane, click the **Properties** tab.

Step 5 In the **Description** field, modify the description.

Step 6 Click **OK**.

Deleting a Tier

⚠

Attention   When you delete an organization, all data contained under the organization is deleted, including sub-organizations, compute firewalls, resource pools, and policies.

Procedure

Step 1   In the **Navigation** pane, click the **Tenant Management** tab.

Step 2   In the **Navigation** pane, expand **root** > *Tenant_name* > *Virtual Data Center_name* > *Application_name* where you want to delete a tier.

Step 3   In the **Work** pane, click the **Sub-Elements** tab.

Step 4   On the **Sub-Elements** tab, click the tier you want to delete.

Step 5   Click the **Delete Tier** link.

Step 6   In the **Confirm** dialog box, click **Yes**.