Getting Started with Cisco Virtual Topology System

This chapter provides an overview of Cisco Virtual Topology System (VTS). It also provides a high level workflow of the tasks that you need to perform after you install Cisco VTS.

Logging in

To log in to the Cisco VTS GUI:

Step 1 Open a supported browser, and enter the URL of the server. For example: http://*<IP Address>*.

Cisco VTS supports Google Chrome and Mozilla Firefox browsers.

Step 2 Enter the username and passphrase, and click **Login**. The default username and passphrase is admin/admin.

The Change Password window appears.

You are required to change the passphrase for the admin account the first time you are logging in. Click the Passphrase guidelines link in the Cisco VTS GUI for details about the passphrase guidelines.

Step 3 Enter the **New Passphrase**, and reenter the new passphrase in the **Confirm New Passphrase** field.

Step 4 Click **Change Passphrase**.

To change your passphrase subsequently, click **Change Passphrase** on the top right settings button. See the *Changing Password for Cisco VTS from VTS GUI* in the *Cisco VTS Installation Guide*, for details.

The Cisco VTS welcome screen is displayed. You can create and set up Sites from this UI.

After you create Sites:

- You may use the Setup Wizard, which displays the tasks you need to complete in order to get started with the system.

• Proceed with the tasks on your own, if you are familiar with the Cisco VTS setup tasks. You can access the Quick Guide anytime from the Settings menu on the top right corner of the Cisco VTS GUI.

Creating Sites

After you log in to Cisco VTS, you must create and set up Sites.

To create a site:

Step 1   Click the + icon in the Sites page.. The Inventory / Discovery window appears.

Step 2   Enter the **Site Name**. This is mandatory.

Step 3   Enter the **Site ID**. This step is optional. If you enter the site ID, it should be in the UUID format.

Step 4   Enter the **Description**.

Step 5   Specify the Fabric Data Plane type. It can be EVPN VXLAN or MPLS SR.

   Note   Creating second site will default to the same data plane as 1st (as co-exist of different data plane is not supported).

Step 6   Click the tick icon. The site gets created.

You can use the Edit icon in case you need to edit the site details. To cancel the changes, click the **X** icon.

Setting up Sites

System-level settings for Cisco VTS are available under Global Settings. Site-level settings reside under Administration.

See Global Settings for the various global settings options.

See Administering Cisco VTS for the site-level settings options.

Deleting a Site

You can click on Delete icon to delete a site:

• If you click the Delete Site icon and if the site has workloads, depending upon the type of workload the following error message is dispalyed:

> Error: com.tailf.maapi.MaapiException: Exception in callback: Corresponding Site
> e67165b1-e352-4d57-8111-42a42f5ec857 can not be deleted, Please delete workload first.

• If the site has devices associated with it (even though all other workload is removed), the following error message is displayed.

> Error: com.tailf.maapi.Maapi Exception: illegal reference /ncs:devices/device{device1} /vts-device-meta-data/site-id <- this indicates that device is still associated with site that's getting deleted.

In that case, delete the corresponding workload before deleting site.

You cannot delete a site:

- If it has no inventory, but is registered to a VMM

- Resources defined.

To delete a site:

Click the delete icon in the Site tile.

If the site has workloads depending upon the type of workload the following error message is dispalyed:

> Error: com.tailf.maapi.MaapiException: Exception in callback: Corresponding Site e67165b1-e352-4d57-8111-42a42f5ec857 can not be deleted, Please delete workload first.
> If the site has devices associated with it (even though all other workload is removed),
> the following error message is displayed
> Error: com.tailf.maapi.Maapi Exception:
> illegal reference /ncs:devices/device{device1}
> /vts-device-meta-data/site-id <- this indicates that device is still associated with site that's getting deleted.

In this case you should delete the corresponding workload before deleting site.

Using the Quick Guide

On logging in for the first time, the Quick Guide appears.

Note   You may opt to close the Quick Guide and proceed to the set up tasks on your own, via the Cisco VTS GUI. To get a list of tasks that need to be performed to set up and get started with Cisco VTS, see Initial Configuration Tasks, on page 4 section. At any time, you can access the Quick Guide from the settings menu on the top right corner of the Cisco VTS GUI.

The Quick Guide has the following tasks listed:

Task	Subtasks	Doc Section
Administration	• Site Settings • Virtual Machine Manager	• Setting up Site • Registering the Virtual Machine Manager using GUI
Set up Inventory	• Discover Devices	• Managing Inventory

Admin Domains	Create Admin Domains	Creating an Admin Domain
Set up Tenants	Add Tenants	Adding Tenants
Set up Overlay	• Add Network • Define Baremetal • Add Virtual Machines • Add Routers	Provisioning Overlay Networks

Initial Configuration Tasks

After you create and set up Sites, you need do the following:

Note   Before you perform the tasks below, ensure that installation is complete, Day Zero configuration on leafs is done, and all underlay configurations are working.

Sequence	Task	Navigation in VTS GUI / User Guide Section	Additional Notes
1	Discover the Topology of all the leafs, spine, border-leafs, and DCI	Discovery > Topology Discovery For more information about adding devices and host information, see Performing Auto Discovery	VTFs are not detected in topology discovery.
2	Import the devices after adding the auth group	Inventory > Import Inventory For more information about adding devices and host information, see Importing Inventory using CSV File	

Sequence	Task	Navigation in VTS GUI / User Guide Section	Additional Notes
3	Add the DHCP Server IP and Anycast Gateway MAC	Administration > Site Settings For more information about adding devices and host information, see Administering Cisco VTS.	
4	Perform VTSR and VTF Registration. First bring up VTSR and let it register with VTC. Then bring up VTFs. **Note** This step is required only if you have a VTF-based deployment.	See the *Installing the Virtual Topology Forwarder* section in the *Cisco VTS Installation Guide*.	To verify that the VFG group is created, go to Inventory > Virtual Forwarding Groups.
5	Update the BGP ASN information for the devices	Inventory > Network Inventory For more information, see Viewing Network Inventory.	

Sequence	Task	Navigation in VTS GUI / User Guide Section	Additional Notes
6	Create resource pools	• For the site with VxLAN data plane,Resource Pools > Global VNI Pool • For the site with MPLS data plane, Resource Pools>Global EVI • Resource Pools > Device Specific VLAN Pools • Resource Pools > Multicast IP Pool For more information about creating an admin domain, see Managing Resources	

Sequence	Task	Navigation in VTS GUI / User Guide Section	Additional Notes
7	Set the Route Reflector	Administration > Route Reflector For more information about setting global route reflector, see Setting Global Route Reflector. **Note** Release 2.6.3 supports both global and admin-domain scoped route-reflector (via route-reflector functional group). So, there are 2 possible ways to configure route-reflector.	
8	Create an Admin Domain	Admin Domains > Domains For more information about creating an admin domain, see Creating an Admin Domain	Properties for the L2/L3 Gateway Group are as follows: • Control Protocol: BGP-EVPN • Replication Modes : Multicast and Ingress • Distribution Mode: Decentralized

Sequence	Task	Navigation in VTS GUI / User Guide Section	Additional Notes
9	Add the devices to the Gateway Group	Admin Domains > Domains For more information about creating an admin domain, see Creating an Admin Domain	See the *Supported Platforms* section in the *Cisco VTS Installation Guide* for details about devices support for different roles.
10	Add the ToR and VTSR to the L2 and L3 Gateway Group	Admin Domains > Domains For more information about creating an admin domain, see Creating an Admin Domain	
11	Add devices to route-reflector functional group	Admin Domains > Domains For more information about creating an admin domain, see Creating an Admin Domain	
12	Save the Admin Domain you created	Admin Domains > Domains For more information about creating an admin domain, see Creating an Admin Domain	

Notes Regarding VMware vSphere Distributed Switch

The following points need to be taken care of while you create a vDS.

Note
- All the ToRs in the inventory should be part of the vDS.

- One vDS can represent one or more ToRs.

- All the hosts that are connected to a particular ToR should be part of the same vDS.

For Non-vPC Specific Configuration

If you are not using vPC on the leaves:

- Associate one or more leafs per vDS.

- Attach the hosts data interface to the vDS uplinks.

Note See VMware documentation for the detailed procedure.

For vPC Specific Configuration

If you are using vPC on the leaves:

Step 1 Create one vDS switch for one or more vPC pairs.

Step 2 Enable enhanced LACP.

See VMware documentation for the detailed procedure.

Step 3 Create a Link Aggregation Group for each vDS.

See VMware documentation for the detailed procedure.

Step 4 You may remove the default port group that gets created as it will not be used.