

# Introduction to Versa Director

The Versa Networks lab environment consists of a fixed, pre-configured topology that will allow you to explore, configure, and manage Versa Networks CPEs by using Versa Director, the central management and orchestration platform for a Versa Secure SD-WAN solution. After completing this lab, you will be able to:

- Identify the functions of the main Versa Director tabs
- Navigate through the Versa Director environment to accomplish some basic tasks

In this lab, you will be assigned a single CPE device (Branch device) for configuration and monitoring.

The lab environment is accessed through a remote desktop connection. The remote desktop connection opens a remote workstation, where you will use various tools to navigate and configure the lab environment. The main tool you will use in this lab is Versa Director. Versa Director can be accessed by opening the Google Chrome browser on the Remote Desktop. There is a bookmark to the Versa Director device in the Google Chrome bookmark bar.

This lab environment is a shared environment. There may be up to 5 other students in the environment. Each student has their own remote desktop, but the Versa Director is shared. Because of the shared environment, you may see configuration templates, device groups, workflows, and devices that other students have created, or that have been pre-provisioned within Versa Director. It is important that you only modify the configuration components that are assigned to you by your instructor.

During certain lab parts, the lab guide will present sample output from the GUI or the CLI. The sample outputs are SAMPLES and represent the information as it appeared during the lab guide creation. Your output may vary in some ways (some devices may or may not be present, some routes may or may not be the same, etc.) Do not be alarmed if your results vary slightly from the results shown in the lab guide. The important thing is that the lab functions in the desired manner.

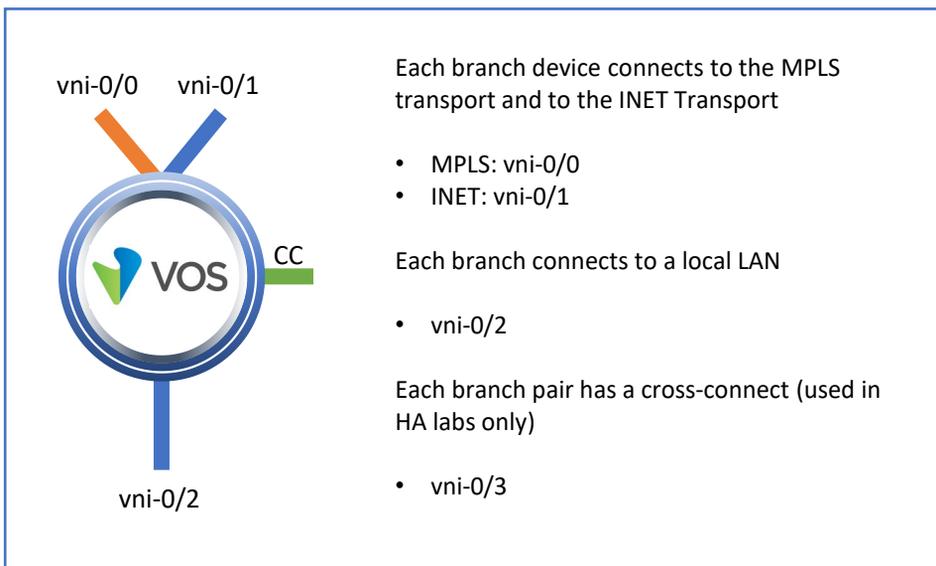
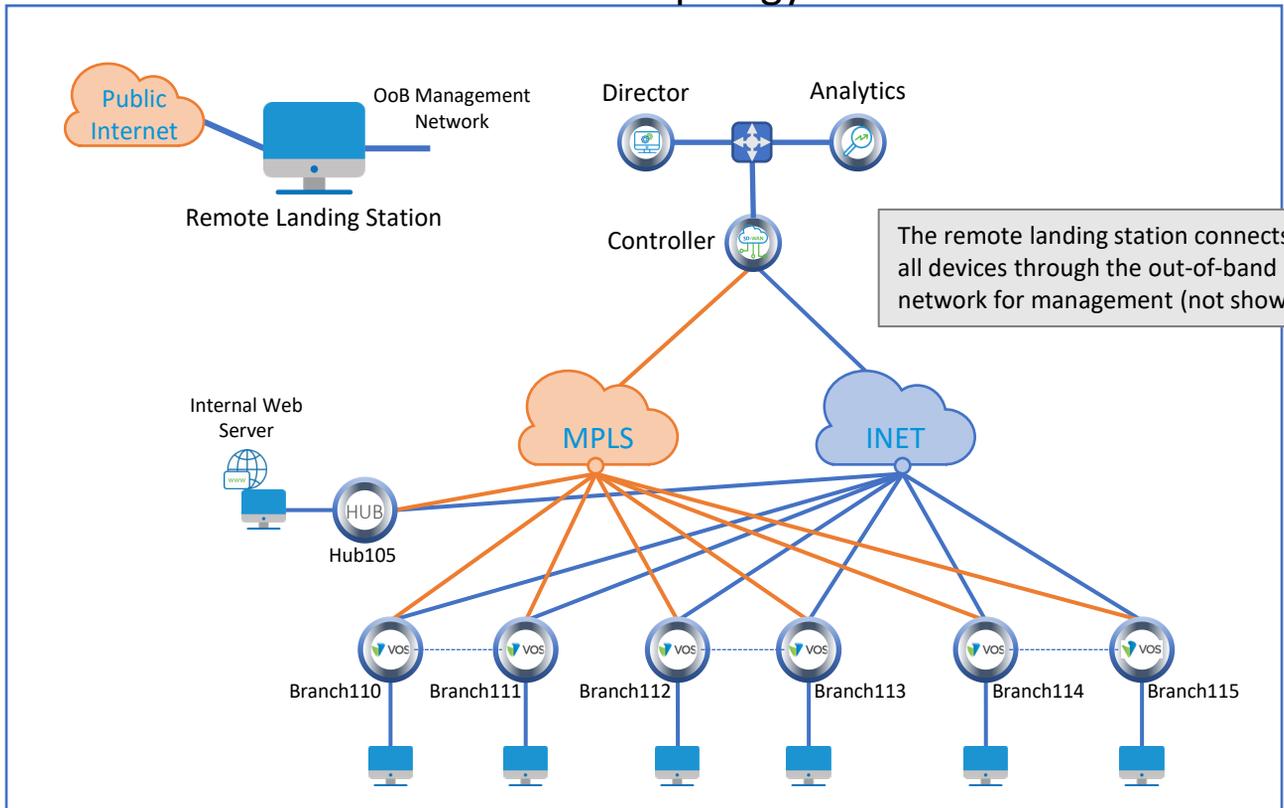
This lab guide will step you through some common tasks that are performed on Versa Director. After an introductory set of exercises, you will be asked to perform some basic tasks that will allow you to become more familiar with the environment. At the end of the lab guide you can find additional help on to how to complete the tasks, so if you have trouble with a task, please refer to the help section. If you still cannot accomplish the task, ask your instructor for assistance. In addition, you will see **hints** placed throughout the lab guide to help you along.

Look for these hints to help you in the labs

The goal of this and all lab exercises is to help you gain additional skills and knowledge. Because of this, the lab guide contains additional instruction to supplement the student guides.

Now that we've discussed what is expected, let's get started!

## Lab Topology



Versa Director Login: **labuserXYZ** (e.g. **labuser110**, **labuser111**, etc.)  
 Versa Director Password: **Versa@123**

Branch OoB Login: **admin**  
 Branch OoB Password: **versa123**

Testing Host Login: **labuserXYZ** (e.g. **labuser110**, **labuser111**, etc.)  
 Testing Host Password: **versa123**

Remember this! You will use it a lot!

## Interface Addresses

CPE	vni-0/0	vni-0/1	vni-0/2
Branch110	192.168.19.110/24	192.168.20.110/24	172.16.110.1/24
Branch111	192.168.19.111/24	192.168.20.111/24	172.16.111.1/24
Branch112	192.168.19.112/24	192.168.20.112/24	172.16.112.1/24
Branch113	192.168.19.113/24	192.168.20.113/24	172.16.113.1/24
Branch114	192.168.19.114/24	192.168.20.114/24	172.16.114.1/24
Branch115	192.168.19.115/24	192.168.20.115/24	172.16.115.1/24
MPLS Gateway	192.168.19.3		
INET Gateway		192.168.20.3	

## Controller Addresses

MPLS	MPLS Gateway	INET	INET Gateway
192.168.17.3/24	192.168.17.1	192.168.18.3/24	192.168.18.1

## Exercise 1: Connect to the remote lab environment

The first lab exercise is to become familiar with how to connect to the remote lab environment. Your instructor should have reviewed the following information with you prior to starting:

- Branch/Node/CPE Assignment
- Remote Lab Access

If you have not yet been assigned a branch device, please contact the instructor as this is a shared environment, and each student will configure and monitor a specific branch node.

Question: What node is assigned to you in the lab topology? \_\_\_\_\_

Follow the instructions provided by your instructor to connect to the remote lab environment.

Once you have started your remote desktop session, you will be presented with the remote desktop:

Remote Desktop for use in select labs

Time Remaining: 5d 2h 2mn

branch110: MPLS: 192.168.19.110/24  
INET: 192.168.20.110/24  
LAN: 172.16.110.1/24

branch111: MPLS: 192.168.19.111/24  
INET: 192.168.20.111/24  
LAN: 172.16.111.1/24

branch112: MPLS: 192.168.19.112/24  
INET: 192.168.20.112/24  
LAN: 172.16.112.1/24

branch113: MPLS: 192.168.19.113/24  
INET: 192.168.20.113/24  
LAN: 172.16.113.1/24

branch114: MPLS: 192.168.19.114/24  
INET: 192.168.20.114/24  
LAN: 172.16.114.1/24

branch115: MPLS: 192.168.19.115/24  
INET: 192.168.20.115/24  
LAN: 172.16.115.1/24

Controller IP address for onboarding:  
192.168.17.3

Versa Director Login

User Names: labuser110 Password: Versa@123  
labuser111  
labuser112  
labuser113  
labuser114  
labuser115

Shell Access to Branches (SSH)

User Name: admin  
Password: versa123

Multi-Tabbed Putty (SSH access to devices)

Google Chrome (Versa Director Access)

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NETWORKS

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On the remote desktop, open the Google Chrome browser window. The Google Chrome browser window contains a bookmark to the Versa Director. Log into the Versa Director with the username associated with your assigned branch device:

CPE	Username	Password
Branch110	labuser110	Versa@123
Branch111	labuser111	Versa@123
Branch112	labuser112	Versa@123
Branch113	labuser113	Versa@123
Branch114	labuser114	Versa@123
Branch115	labuser115	Versa@123

## Exercise 2: Identify the main components of Versa Director

You should be placed into the *Administration > Appliances* dashboard of Versa Director. There are 5 tabs at the top of the Versa Director user interface. Each of the tabs represents a set of dashboards to perform certain tasks, such as monitoring devices, managing configuration components on Versa Director, and creating and managing different components. The currently selected tab is highlighted automatically:

Name	Mgmt. Address	Tags	Type	Service Start Time	Software Version	Organizations	Snapshots	Config Synchronized	Reachability
Branch110	10.1.64.102		Branch	Fri, Apr 15 2022, 05:58	21.2.2-GA	Tenant1	[Icon]	[Green Check]	[Green Check]
Branch111	10.1.64.103		Branch	Fri, Apr 15 2022, 05:14	21.2.2-GA	Tenant1	[Icon]	[Green Check]	[Green Check]
Branch112	10.1.64.104		Branch	Fri, Apr 15 2022, 06:12	21.2.2-GA	Tenant1	[Icon]	[Green Check]	[Green Check]
Branch113	10.1.64.105		Branch	Fri, Apr 15 2022, 05:14	21.2.2-GA	Tenant1	[Icon]	[Green Check]	[Green Check]
Branch114	10.1.64.106		Branch	Fri, Apr 15 2022, 06:13	21.2.2-GA	Tenant1	[Icon]	[Green Check]	[Green Check]
Branch115	10.1.64.107		Branch	Fri, Apr 15 2022, 05:15	21.2.2-GA	Tenant1	[Icon]	[Green Check]	[Green Check]
Controller01	192.168.99.102		Controller	Fri, Apr 15 2022, 06:19	21.2.2-GA	Tenant1_SP	[Icon]	[Green Check]	[Green Check]
Hub105	10.1.64.101		Hub	Fri, Apr 15 2022, 05:19	21.2.2-GA	Tenant1	[Icon]	[Green Check]	[Green Check]
Router	192.168.99.130		Service-vmf	Fri, Apr 15 2022, 18:59	21.2.2-GA	SP	[Icon]	[Green Check]	[Green Check]

Many times there are multiple ways to navigate between windows and dashboards.

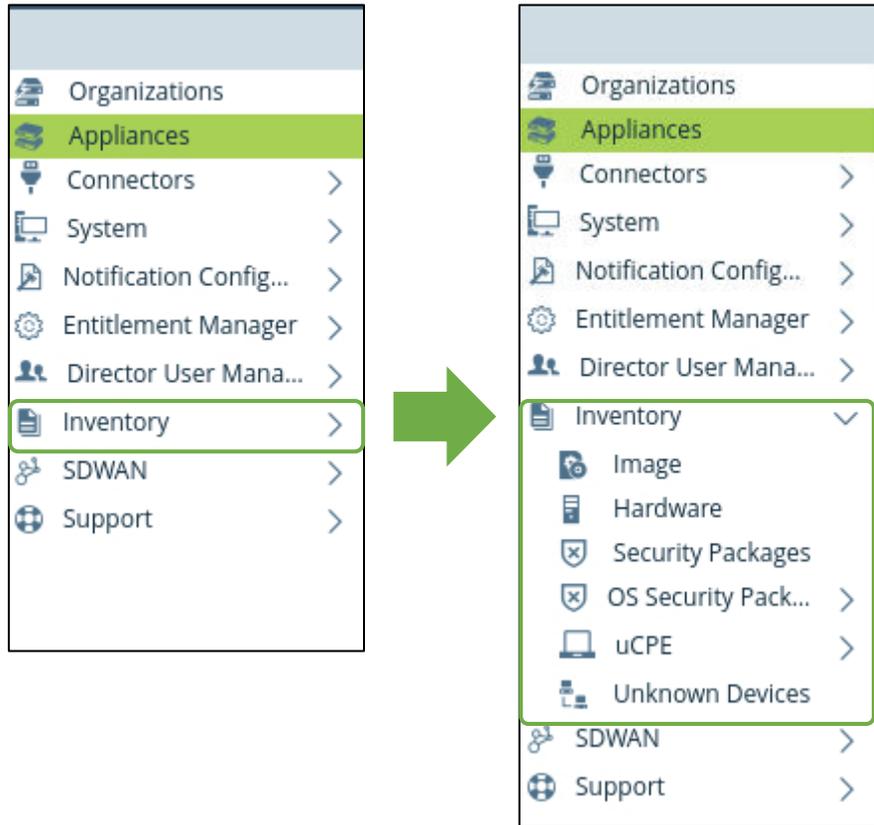
The Appliances table of the Administration dashboard lists all of the deployed appliances in the SD-WAN environment. You can click on a device in the list to navigate directly to that device's configuration and monitoring dashboard. You can also navigate to the individual device configuration and management dashboard by clicking the Monitor tab.

The main tabs are:

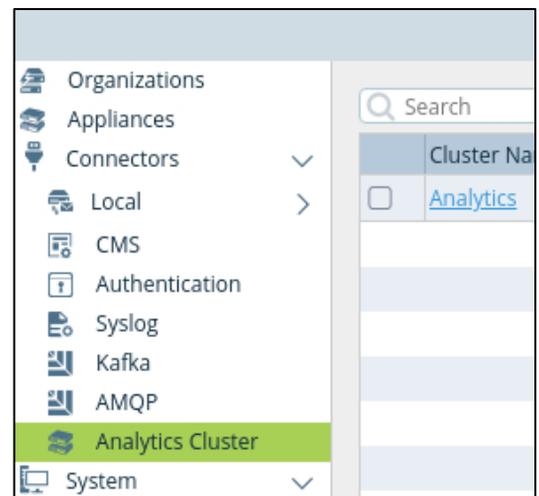
- **Monitor:** Provides access to device specific statistics, status, and configurations
- **Configuration:** Provides access to configuration components stored on Versa Director, including Device Groups, Bind Data, and Device and Service Templates
- **Workflows:** Provides access to create new workflows and to view and update existing workflows
- **Administration:** Provides access to SD-WAN environment configuration, including device inventory, deployment information, overlay configuration, external connectors, organization definition and configuration, user management, and licensing. It also provides access to the software management features, such as downloaded OS packages, Security Packages (Spacks), etc.
- **Analytics:** Opens the Versa Analytics GUI within Versa Director

Because you're already here, let's explore the *Administration* tab.

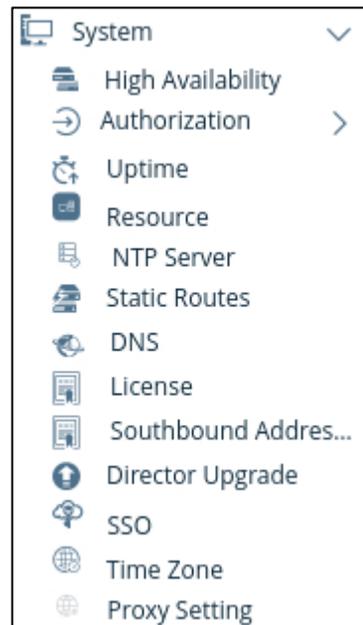
The menu on the left displays the main categories of administration information. Wherever you see a > symbol, this means that the category can be expanded:



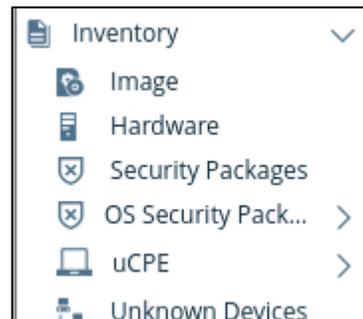
Expand the *Connectors* menu. The Connectors menu lists the different types of connections that are available to other systems, such as Analytics clusters, authentication servers, syslog servers, and so forth. If you click on the Analytics Cluster menu item, you'll see a table that lists all of the Analytics connectors on the system (which is currently one). The Analytics connector provides the information needed for Versa Director to communicate with the Versa Analytics node or cluster.



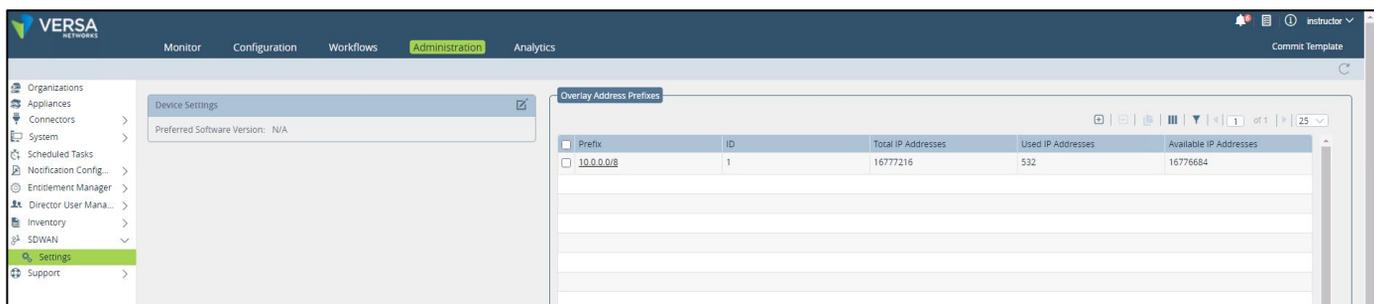
Next expand the *System* menu. The System menu is where Versa Director system information is configured, including Versa Director High Availability, NTP servers, the Versa Director license, DNS settings, Time Zone settings, and so forth. It's important to remember that the Versa Director is a computer system that may need to perform functions for the local processes, including DNS lookups and local routing. These settings are NOT for the SD-WAN systems. These settings are for the local Versa Director system.



Expand the *Inventory* menu. Here you will see dashboards to manage the software images stored on Versa Director, the current device inventory, which includes devices that have been created in the Versa Director database (Hardware), Security Package management, OS Security package management, and uCPE images. The Unknown Devices dashboard lists appliances that have been onboarded but that have a serial number that does not match a device serial number in the Hardware table.



The *SDWAN Settings* dashboard is where the SD-WAN overlay address scheme is defined.

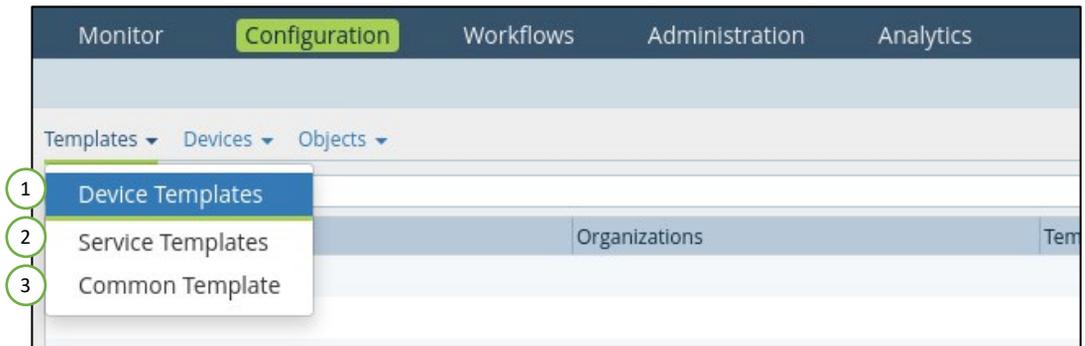


## Exercise 3: Explore Versa Director

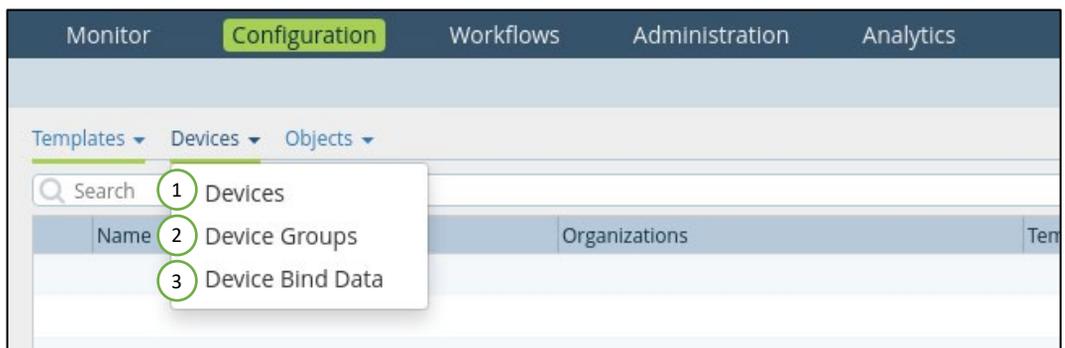
In this lab exercise, you will explore various dashboards of the Versa Director platform and answer questions related to the areas that you explore.

**Task:** Navigate to the *Configuration* tab. Use the GUI to find where configuration templates are stored.

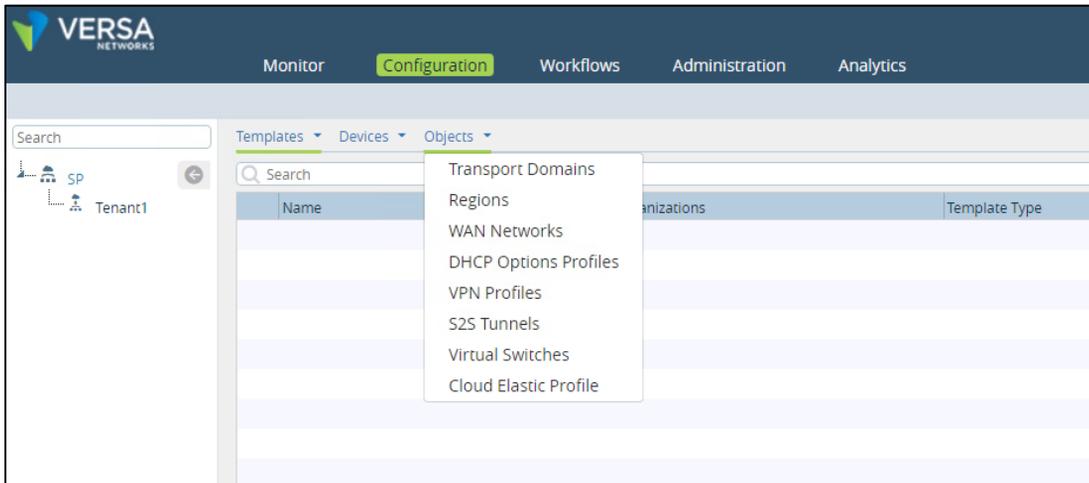
If you are assigned Branch 110, the template created for your device probably has a name related to Branch 110



**Task:** Use the GUI to show where the device related configuration is stored.

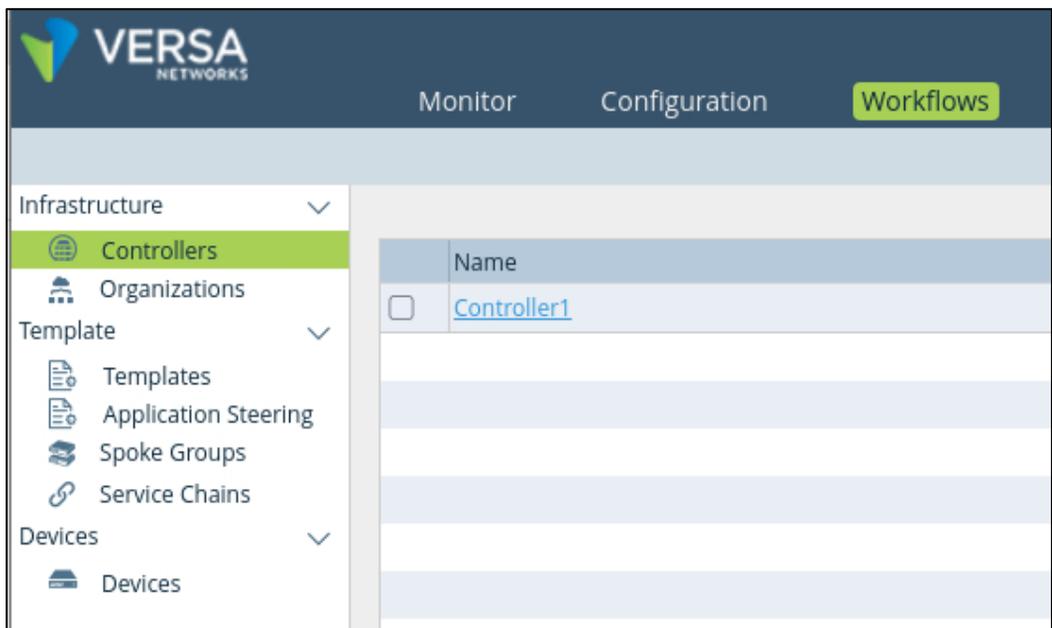


**Task:** Use the GUI view the different configuration objects related to the network and SD-WAN environment.

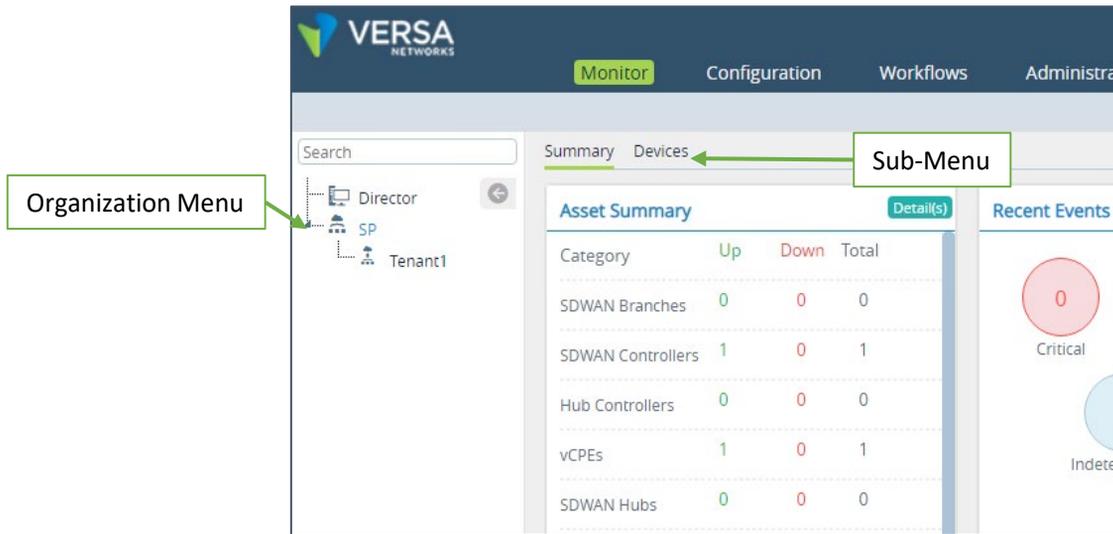


**Task:** A workflow is a step-by-step process to perform a task. In Versa Director, a workflow is a step-by-step process to create something, similar to a configuration wizard. The process or settings used are saved so that the process can be repeated, or so that settings in the original process can be changed and re-used to update or modify the object that the workflow created.

Navigate to the *Workflows* tab. In the *Workflows* tab, examine the different types of workflows that can be used to create configuration components.



**Task:** Open the *Monitor* tab. In the *Monitor* tab there is a left-side menu and a sub-menu at the top of the table displayed on the page.



With the *SP* organization selected, click on the *Devices* tab to display devices that are managed by the *SP* organization.

Click on the *Tenant1* organization. With the *Tenant1* organization selected, click on the *Devices* tab to display devices that are managed by the *Tenant1* organization.

**Question:** What differences do you see between the *SP* organization view and the *Tenant1* organization view within the corresponding *Devices* tables?

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**Task:** Click on your branch device in the *Tenant1* *Devices* table.

**Question:** How did the main menu bar change when you opened your branch device?

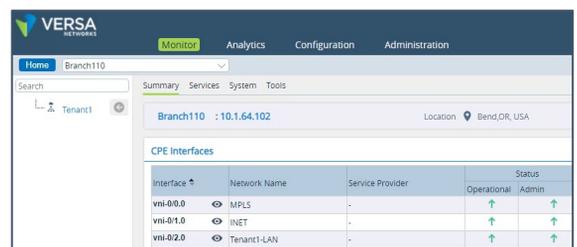
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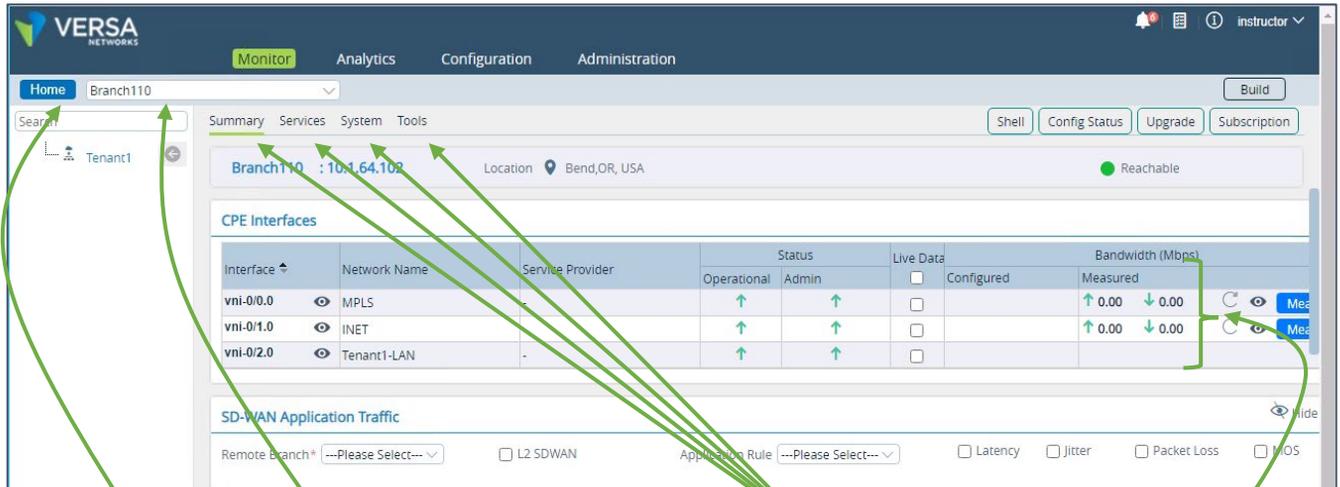


Before



After

### Key Differences: Device Context Mode (also called Appliance Context Mode)



Return to global menu (Exit Device Context)

Current Device

Parameters and properties that can be monitored on the device

**Task:** Explore the *Services* options in Device/Appliance Context mode.

Open the *Services* tab for your device. There are 2 main categories of services that can be viewed: Services and Networking. Take a few minutes to explore the type of information available in some of the Services and Networking dashboards.

What type of information is available in the Services section?

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What type of information is available in the Networking section?

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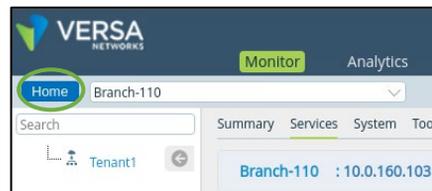
Is the information listed above for an organization, or for a specific device?

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**Task:** Click the *Home* button next to your device name. What happens to the display and top menu bar?

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Clicking the *Home* button takes you back to the main Versa Director system and dashboards, and exits the device/appliance context mode.

**Task:** Explore the *Director User Management* menus.

Navigate to the global *Administration* tab in Versa Director (make sure you are no longer in the Device/Appliance Context mode). In the *Administration* tab, locate the *Director User Management* menu on the left side and expand the menu. Select the *Provider Users* from the menu.

**Question:** What uses are visible in the table?

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**Question:** What role is assigned to your username?

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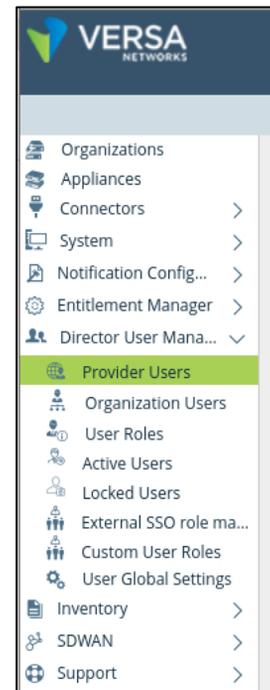
Click your username to open the *Edit Provider User* dialog.

**Question:** What is the Landing Page configured for your user?

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Click *Cancel* to close the dialog – do not change any settings.



Do you remember what dashboard you were presented with when you first logged on?

Click on the Locked Users menu item. This is where user accounts that have been locked out of the system due to repeated wrong passwords are listed. To unlock a user, you select the user from the list and click the unlock button in the top right. Currently there shouldn't be any locked users on the list.

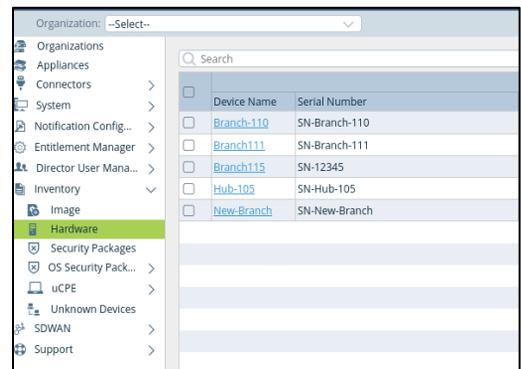


**Task:** Explore the *Inventory* menu.

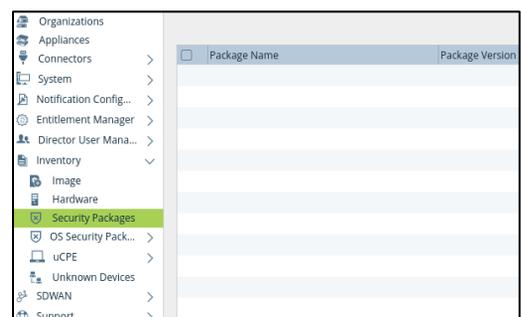
Expand the *Inventory* menu, then select *Image* from the list. This is where VOS software images are stored when they are downloaded to Versa Director.

Note that there is no connectivity status on the Hardware table, but the Appliance table has a connectivity status.

Select the *Hardware* menu. This is where devices that have been created in Versa Director are stored. It's important to remember that when you create a device in Versa Director, it is stored as an object in the Versa Director database. The Hardware table lists devices that have been created in Versa Director. The Appliances menu table lists devices that have been deployed and are active in the network. When a device in the Hardware table is onboarded or deployed in the network, a corresponding Appliance is created in the Appliance table – but only AFTER the device is successfully onboarded and is live.

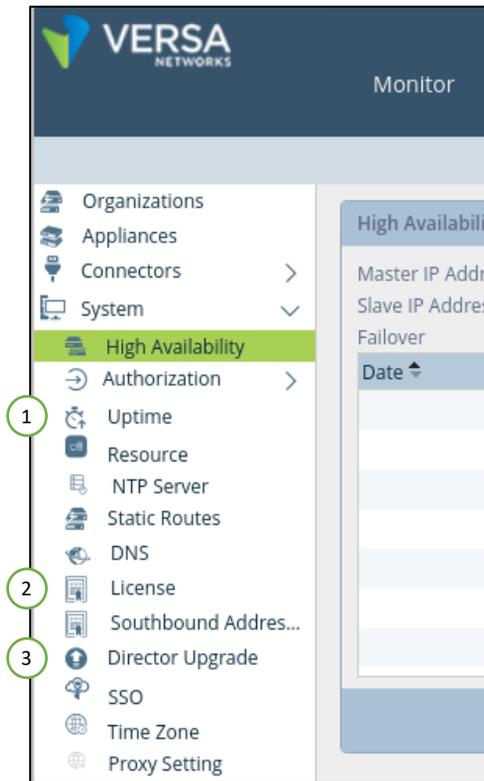


Select the *Security Packages* menu. This is where Security Package downloads are stored and listed in Versa Director. These can be used to update security package information on devices in the network.



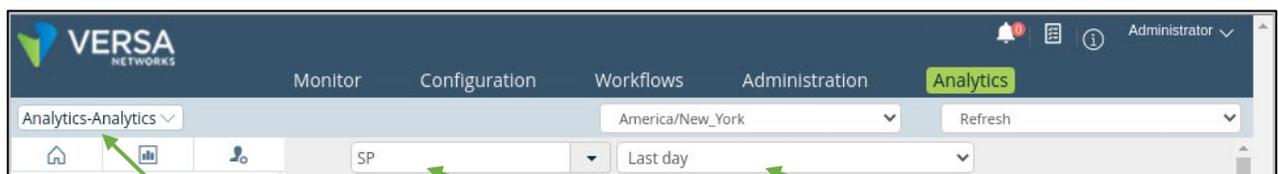
**Task:** Explore the *System* menus.

Expand the System menu. In the System menu. Explore each of the highlighted areas to see what information can be found there.



**Task:** Explore the Analytics dashboard.

The Analytics tab opens the Versa Analytics dashboard. Currently there is a single Versa Analytics node deployed in the network. However, when multiple Versa Analytics nodes are configured and linked to Versa Director, you can select which Versa Analytics node is displayed by choosing the node from the dashboard menu.



Currently displayed Analytics Node

Organization level

Time frame of displayed data

**Task:** Explore the Versa Analytics Dashboards

The left menu is divided into 2 main sections: Dashboards and Logs. The Dashboards display historical statistic information gathered from devices in the SD-WAN. The Logs section displays the logs that are sent from processes that run on the end devices.

What are the main dashboards available to view statistics?

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In Versa Analytics, you can select the main Dashboard title to display summary information related to that dashboard topic. You can also select the sub-menus for more specific information.

Each dashboard has sub-components that display graphs and charts related to the SD-WAN. Take a few minutes to explore the dashboards and sub-tabs within each dashboard entry. Please note that because this is a lab environment there may be many charts and graphs that don't contain any information because there isn't any production traffic running on the network.

Select the System dashboard. What information is shown on the main System dashboard?

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The screenshot displays the Versa Director interface with the 'System' dashboard selected. The main content area is titled 'Appliance Health Monitoring' and shows a table of system metrics for various appliances. The table includes columns for Appliance, CPU Load (%), Memory Load (%), Disk Load (%), and Sessions Load. The data is as follows:

Appliance	CPU Load (%)	Memory Load (%)	Disk Load (%)	Sessions Load
Branch110	2.00%	13.00%	13.00%	0
Branch111	2.00%	28.00%	12.00%	0
Branch112	2.00%	13.00%	13.00%	0
Branch113	2.00%	28.00%	12.00%	0
Branch114	2.00%	13.00%	13.00%	0
Branch115	2.00%	28.00%	12.00%	0
Hub105	2.00%	28.00%	10.00%	3

The interface also shows a left-hand navigation menu with 'System' highlighted, and a top navigation bar with 'Monitor', 'Configuration', 'Workflows', 'Administration', and 'Analytics' tabs. The 'Analytics' tab is currently active.



**STOP!** Notify your instructor that you have completed this lab.