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# Monitoring Citrix XenCenter

Citrix: Xen PowerPack version 103

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# Chapter

# 1

## Introduction

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### Overview

This manual describes how to discover a Citrix XenCenter system and monitor XenServer virtual machines in SL1 using the *Citrix: Xen PowerPack*.

The following sections provide an overview of Citrix XenCenter and XenServer, as well as the *Citrix: Xen PowerPack*:

This chapter covers the following topics:

<a href="#">What are Citrix XenServer and XenCenter?</a> .....	3
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<a href="#">Installing the Citrix: Xen PowerPack</a> .....	4

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### What are Citrix XenServer and XenCenter?

Citrix XenServer is a server virtualization platform that enables users to host, deploy, and manage virtual machines. XenCenter is a system that enables users to install and manage XenServer environments via a user interface.

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## What Does the Citrix: Xen PowerPack Monitor?

To monitor Citrix XenCenter systems and XenServer devices using SL1, you must install the *Citrix: Xen PowerPack*. This PowerPack enables you to discover, model, and collect data about XenCenter and XenServer systems and devices.

The *Citrix: Xen PowerPack* includes:

- An example credential you can use as a template to create a Basic/Snippet credential to connect to the XenCenter system you want to monitor
- Dynamic Applications to discover, model, and monitor performance metrics and/or collect configuration data for XenCenter and XenServer systems and devices
- Device Classes for each of the XenCenter and XenServer systems and devices SL1 monitors
- Event Policies and corresponding alerts that are triggered when XenCenter and XenServer systems and devices meet certain status criteria
- Device dashboards for several of the discoverable XenServer component devices

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## Installing the Citrix: Xen PowerPack

Before completing the steps in this manual, you must import and install the latest version of the *Citrix: Xen PowerPack*.

**TIP:** By default, installing a new version of a PowerPack overwrites all content from a previous version of that PowerPack that has already been installed on the target system. You can use the **Enable Selective PowerPack Field Protection** setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. (For more information, see the **System Administration** manual.)

**IMPORTANT:** The minimum required MySQL version is 5.6.0.

To download and install the PowerPack:

1. Search for and download the PowerPack from the **PowerPacks** page (Product Downloads > PowerPacks & SyncPacks) at the [ScienceLogic Support Site](#).
2. In SL1, go to the **PowerPacks** page (System > Manage > PowerPacks).
3. Click the **[Actions]** button and choose *Import PowerPack*. The **Import PowerPack** dialog box appears.
4. Click **[Browse]** and navigate to the PowerPack file from step 1.
5. Select the PowerPack file and click **[Import]**. The **PowerPack Installer** modal displays a list of the PowerPack contents.
6. Click **[Install]**. The PowerPack is added to the **PowerPacks** page.

**NOTE:** If you exit the **PowerPack Installer** modal without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPacks** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

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# Chapter

# 2

## Configuration and Discovery

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### Overview

The following sections describe how to configure Citrix XenCenter systems and XenServer devices for monitoring by SL1 using the *Citrix: Xen PowerPack*:

This chapter covers the following topics:

<i>Enabling Performance Metrics for XenServer 6.2.0 and Above</i> .....	6
<i>Configuring a Basic/Snippet Credential for XenServer</i> .....	7
<i>Creating a XenCenter Virtual Device</i> .....	7
<i>Aligning the Discovery Dynamic Application</i> .....	8
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### Enabling Performance Metrics for XenServer 6.2.0 and Above

Most performance metrics are disabled by default in Citrix XenServer 6.2.0 and above. Therefore, if you are monitoring XenServer 6.2.0 or above with SL1, you must enable performance metrics on each XenServer host.

**NOTE:** Performance metrics are enabled by default in XenServer 6.1.0 and below. No additional steps are required to monitor those devices.

To enable performance metrics in XenServer 6.2.0 and above devices:

1. Open the XenServer command line interface.

- For each XenServer host, enter the following command:


```
xe-enable-all-plugin-metrics true
```

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## Configuring a Basic/Snippet Credential for XenServer

To use the Dynamic Applications in the *Citrix: Xen PowerPack*, you must first define a credential in SL1 that enables SL1 to communicate with your XenServer devices and ultimately, your XenCenter system. The *Citrix: Xen PowerPack* includes an example XenServer credential that you can modify for your own use.

To configure a XenServer credential:

- Go to the **Credential Management** page (Credential Management).
- Click the wrench icon () for the **Citrix XenServer - Example** credential. The **Credential Editor** modal window appears.
- Enter values in the following fields:
  - Credential Name**. Enter a name for your XenServer credential.
  - Hostname/IP**. Enter the IP address of the XenServer.

**NOTE:** If you have multiple XenServer devices in a cluster, enter the pool master IP in this field.

**NOTE:** If your XenCenter system experiences a failover and the pool master shifts to another node within the pool, the PowerPack will find a new master and will connect to it during the next polling cycle of the Citrix XenCenter: Discovery Dynamic Application. You do not have to perform any additional actions.

- Port**. Enter "443".
  - Timeout**. Enter "5000".
  - Username**. Enter the username that SL1 will use to connect to your XenServer.
  - Password**. Enter the password for the XenServer username.
- Click the **[Save As]** button.

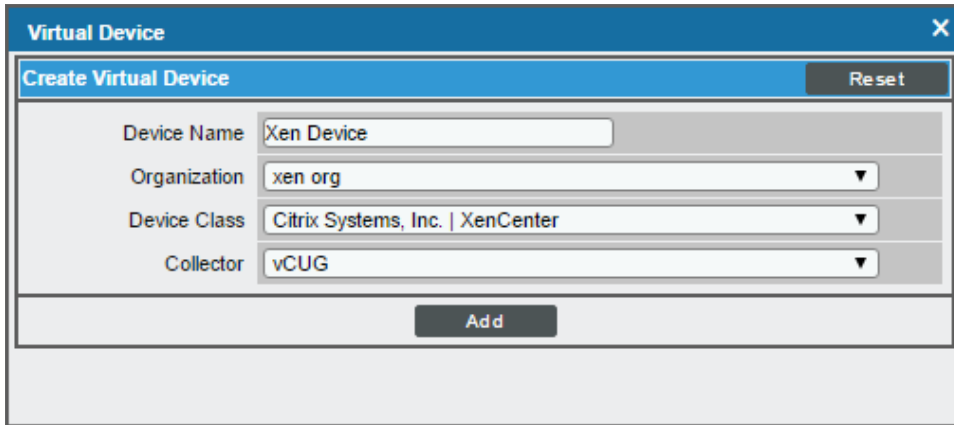
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## Creating a XenCenter Virtual Device

In order to monitor your XenServer devices, you must discover your XenCenter system. Because the XenCenter system does not have an IP address, you cannot discover XenCenter using discovery. Instead, you must create a **virtual device** that represents the root device for the XenCenter system. A virtual device is a user-defined container that represents a device or service that cannot be discovered by SL1. You can use the virtual device to store information gathered by policies or Dynamic Applications.

To create a virtual device that represents your XenCenter system:

1. Go to the **Device Manager** page (Registry > Devices > Device Manager).
2. Click the **[Actions]** button, then select *Create Virtual Device*. The **Create Virtual Device** modal page appears:



The screenshot shows a modal window titled "Virtual Device" with a close button in the top right corner. Below the title bar is a sub-header "Create Virtual Device" and a "Reset" button. The form contains four fields: "Device Name" (text input with "Xen Device"), "Organization" (dropdown menu with "xen org"), "Device Class" (dropdown menu with "Citrix Systems, Inc. | XenCenter"), and "Collector" (dropdown menu with "vCUG"). At the bottom of the form is an "Add" button.

3. Enter values in the following fields:
  - **Device Name.** Enter a name for the device. For example, you could enter "XenCenter" in this field.
  - **Organization.** Select the organization for this device. When you assign an organization to the device, only organization members and users with administrator privileges are allowed to view and edit the device.
  - **Device Class.** Select *Citrix Systems, Inc. | XenCenter*.
  - **Collector Group.** Select the collector group that will monitor the device.
4. Click the **[Add]** button to create the virtual device.

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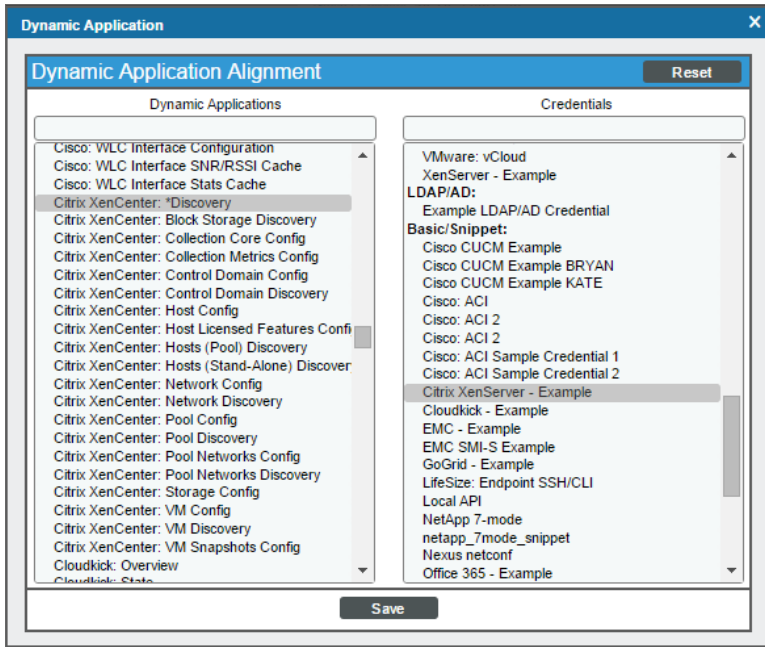
## Aligning the Discovery Dynamic Application

To discover your XenCenter server, you must manually align the "Citrix XenCenter: \*Discovery" Dynamic Application to the XenCenter virtual device. To do so, perform the following steps:

1. Go to the **Device Manager** page (Registry > Devices > Device Manager).
2. Click the wrench icon (🔧) for your virtual device.
3. In the **Device Administration** panel, click the **[Collections]** tab. The **Dynamic Application Collections** page appears.



- Click the **[Actions]** button and select *Add Dynamic Application* from the menu. The **Dynamic Application Alignment** modal page appears:



- In the **Dynamic Applications** field, select *Citrix XenCenter: \*Discovery*.
- In the **Credentials** field, select the credential *you created for this Xen cluster*.

- Click the **[Save]** button to align the Dynamic Application.

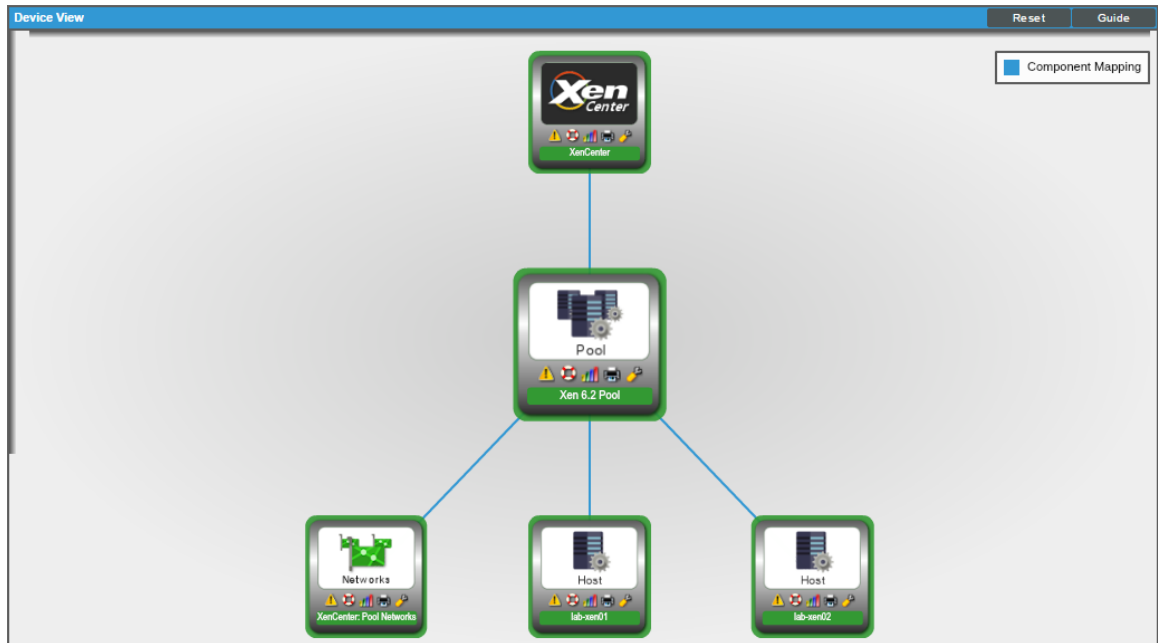
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## Viewing XenServer Component Devices

When the SL1 performs collection for the XenCenter virtual device, SL1 will create component devices that represent each component of your XenCenter system and align other Dynamic Applications to those component devices. Some of the Dynamic Applications aligned to the component devices will also be used to create additional component devices. All component devices appear in the **Device Manager** page just like devices discovered using the ScienceLogic discovery process.

In addition to the **Device Manager** page, you can view the XenCenter virtual device and all associated component devices in the following places in the user interface:

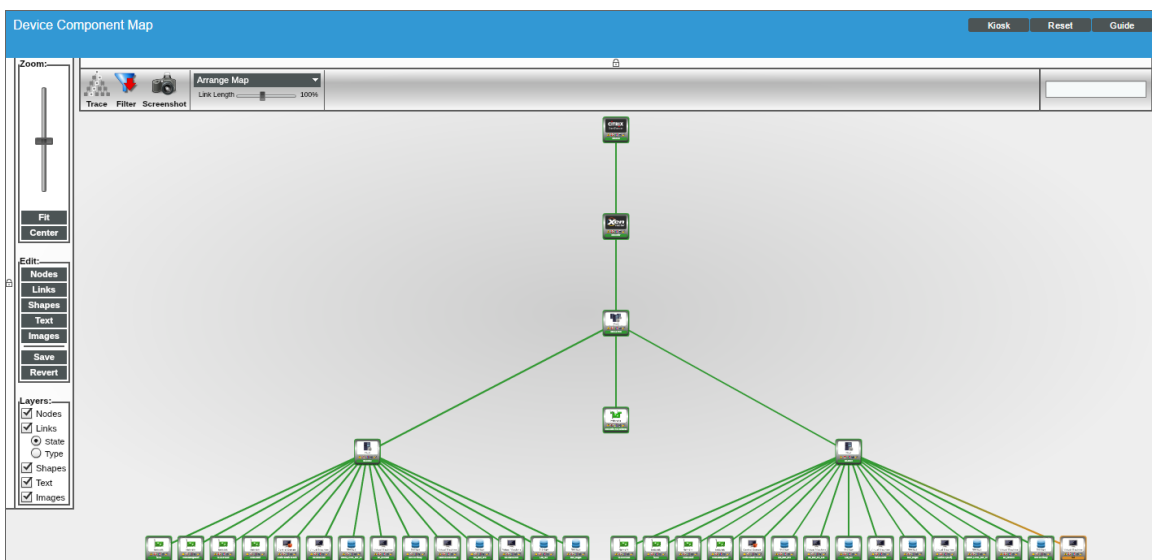
- The **Device View** modal page (click the bar-graph icon [img alt="bar graph icon"] for a device, then click the **Topology** tab) displays a map of a particular device and all of the devices with which it has parent-child relationships. Double-clicking any of the devices listed reloads the page to make the selected device the primary device:



- The **Device Components** page (Registry > Devices > Device Components) displays a list of all root devices and component devices discovered by SL1. The **Device Components** page displays all root devices and component devices in an indented view, so you can easily view the hierarchy and relationships between child devices, parent devices, and root devices. To view the component devices associated with a XenCenter virtual device, find the XenCenter virtual device and click its plus icon (+):

Device Name	IP Address	Device Category	Device Class   Sub-class	DID	Organization	Current State	Collection Group	Collection State
1. - XenCenter	--	Infrastructure	Citrix Systems, Inc.   XenCenter	1921	xen org	Healthy	CUG_94	Active
1. - Xen 6.2 Pool	--	Infrastructure	Citrix Systems, Inc.   XenServer Pool	1922	xen org	Healthy	CUG_94	Active
1. - lab-xen01	--	Host	Citrix Systems, Inc.   XenServer Host	1924	xen org	Healthy	CUG_94	Active
1. 10.0.9 x VLAN	--	Network	Citrix Systems, Inc.   XenServer Network	1925	xen org	Healthy	CUG_94	Active
2. BO_DEVBOX	--	Guest	Citrix Systems, Inc.   XenServer VM	1951	xen org	Healthy	CUG_94	Active
3. BO_EM7_AIO_5_68	--	Guest	Citrix Systems, Inc.   XenServer VM	1947	xen org	Healthy	CUG_94	Active
4. CentOS 6 (64-bit)	--	Guest	Citrix Systems, Inc.   XenServer VM	1939	xen org	Healthy	CUG_94	Active
5. Cloud-Guest	--	Network	Citrix Systems, Inc.   XenServer Network	1932	xen org	Healthy	CUG_94	Active
6. Cloud-Management	--	Network	Citrix Systems, Inc.   XenServer Network	1932	xen org	Healthy	CUG_94	Active
7. Control-doman on host: lab-xen01	--	Infrastructure	Citrix Systems, Inc.   XenServer Control Dom	1933	xen org	Healthy	CUG_94	Active
8. EM7_Images	--	Storage	Citrix Systems, Inc.   XenServer Storage	1946	xen org	Healthy	CUG_94	Active
9. SCSI	--	Network	Citrix Systems, Inc.   XenServer Network	1928	xen org	Healthy	CUG_94	Active
10. LAB_ISO	--	Storage	Citrix Systems, Inc.   XenServer Storage	1941	xen org	Healthy	CUG_94	Active
11. NFS ISO library (QA_RS_03)	--	Storage	Citrix Systems, Inc.   XenServer Storage	1953	xen org	Healthy	CUG_94	Active
12. test	--	Guest	Citrix Systems, Inc.   XenServer VM	2615	xen org	Major	CUG_94	Active
13. test-vm-delde	--	Guest	Citrix Systems, Inc.   XenServer VM	1943	xen org	Healthy	CUG_94	Active
14. XEN01_LOCAL_EXT_STORAGE	--	Storage	Citrix Systems, Inc.   XenServer Storage	1950	xen org	Healthy	CUG_94	Active
15. Xen_EM7_NFS	--	Storage	Citrix Systems, Inc.   XenServer Storage	1937	xen org	Healthy	CUG_94	Active
2 + lab-xen02	--	Host	Citrix Systems, Inc.   XenServer Host	1923	xen org	Healthy	CUG_94	Active
3. XenCenter_Pool_Networks	--	Infrastructure	Citrix Systems, Inc.   XenServer Networks	1935	xen org	Healthy	CUG_94	Active

- The **Component Map** page (Classic Maps > Device Maps > Components) allows you to view devices by root node and view the relationships between root nodes, parent components, and child components in a map. This makes it easy to visualize and manage root nodes and their components. SL1 automatically updates the **Component Map** as new component devices are discovered. The platform also updates each map with the latest status and event information. To view the map for your XenCenter system, go to Classic Maps > Device Maps > Components, and select the map from the list in the left NavBar. To learn more about the **Component Map** page, see the **Views** manual.



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