Progress®
Kemp® LoadMaster®

Deployment Guide VMware vSphere PSC

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1

Introduction

VMware, Inc. provide cloud and virtualization software and services. Platform Services Controller (PSC) is a component of the VMware Cloud Infrastructure Suite. PSC deals with identity management for administrators and applications that interact with the vSphere platform.

PSC provides one appliance- or Windows-based virtual machine platform to systems administrators for centralized management of these common infrastructure services. It is a distributed service that automatically replicates information such as licenses, permissions and roles to other PSC instances. The maximum number of PSCs per vSphere domain is set at eight. High-availability for PSCs is achieved through local load-balancing technologies, though only four PSCs can reside behind a load balancer. PSCs are also latency sensitive and can only tolerate up to five minutes of time skew between PSC nodes.

In vSphere 6, the following components are installed in PSC:

- VMware Appliance Management Service (only in appliance-based PSC)
- VMware License Service
- VMware Component Manager
- VMware Identity Management Service
- VMware HTTP Reverse Proxy
- VMware Service Control Agent
- VMware Security Token Service
- VMware Common Logging Service
- VMware Syslog Health Service
- VMware Authentication Framework
- VMware Certificate Service

- VMware Directory Service

Related Links

For details, see the following topics:

- Document Purpose
- Intended Audience

Document Purpose

The purpose of this document is to explain how to configure the LoadMaster to optimize PSC.

Intended Audience

This document is intended to be read by anyone who is interested in configuring the LoadMaster to optimize the new features in PSC 6.X.

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PSC Template

Progress Kemp has developed a template containing our recommended settings for PSC. You can install this template on the LoadMaster and use it when creating Virtual Services. Using a template automatically populates the settings in the Virtual Services, which is quicker and easier than manually configuring each Virtual Service. If needed, you can make changes to any of the Virtual Service settings after using the template.

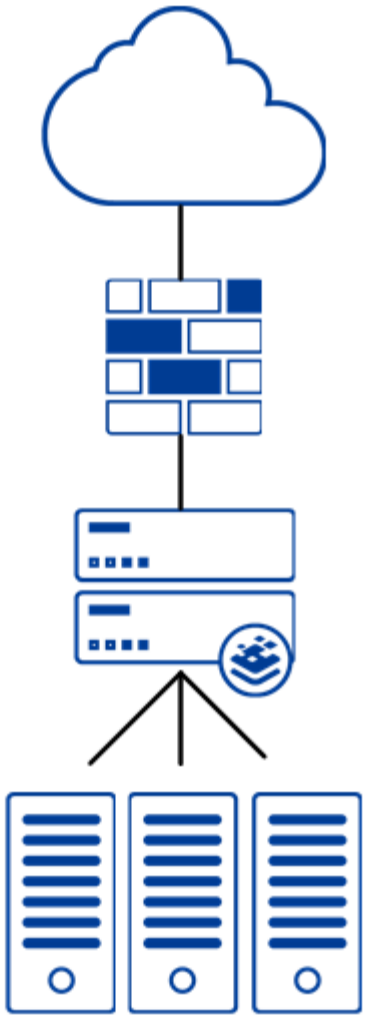
Download released templates from the following page: LoadMaster Templates.

For more information and steps on how to import and use templates, refer to the Virtual Services and Templates, Feature Description.

For steps on how to manually add and configure each of the Virtual Services, refer to the Configure the LoadMaster section.

3

Architecture


Platform Service
Contollers

4

Configure the LoadMaster

The deployed VMware Systems environment determines which of the following setups is used.

Related Links

For details, see the following topics:

- Enable Subnet Originating Requests Globally
- Enable Check Persist Globally
- Create the Virtual Services

Enable Subnet Originating Requests Globally

Enable Subnet Originating Requests Globally

It is best practice to enable the **Subnet Originating Requests** option globally.

In a one-armed setup (where the Virtual Service and Real Servers are on the same network/subnet), **Subnet Originating Requests** is usually not needed. However, enabling **Subnet Originating Requests** should not affect the routing in a one-armed setup.

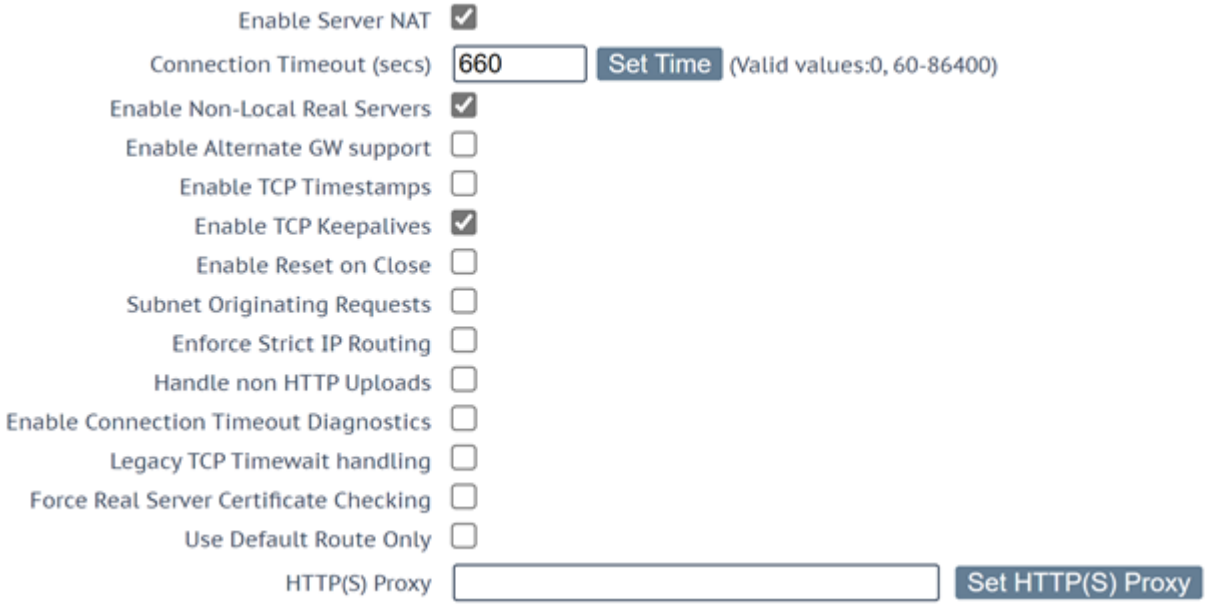
In a two-armed setup where the Virtual Service is on network/subnet A, for example, and the Real Servers are on network B - **Subnet Originating Requests** should be enabled on LoadMasters with firmware version 7.1-16 and above.

When **Subnet Originating Requests** is enabled, the LoadMaster routes traffic so that the Real Server sees traffic arriving from the LoadMaster interface that is in that network/subnet.

When **Subnet Originating Requests** is enabled globally, it is automatically enabled on all Virtual Services. If the **Subnet Originating Requests** option is disabled globally, you can select whether or not to enable **Subnet Originating Requests** on a per-Virtual Service basis.

To enable **Subnet Originating Requests** globally, follow the steps below:

1. In the main menu of the LoadMaster WUI, go to **System Configuration > Miscellaneous Options > Network Options**.



2. Select the **Subnet Originating Requests** check box.

Enable Check Persist Globally

Enable Check Persist Globally

It is recommended that you change the **Always Check Persist** option to **Yes – Accept Changes**. Use the following steps:

1. Go to **System Configuration > Miscellaneous Options > L7 Configuration**.
2. Click the **Always Check Persist** dropdown arrow and select **Yes – Accept Changes**.

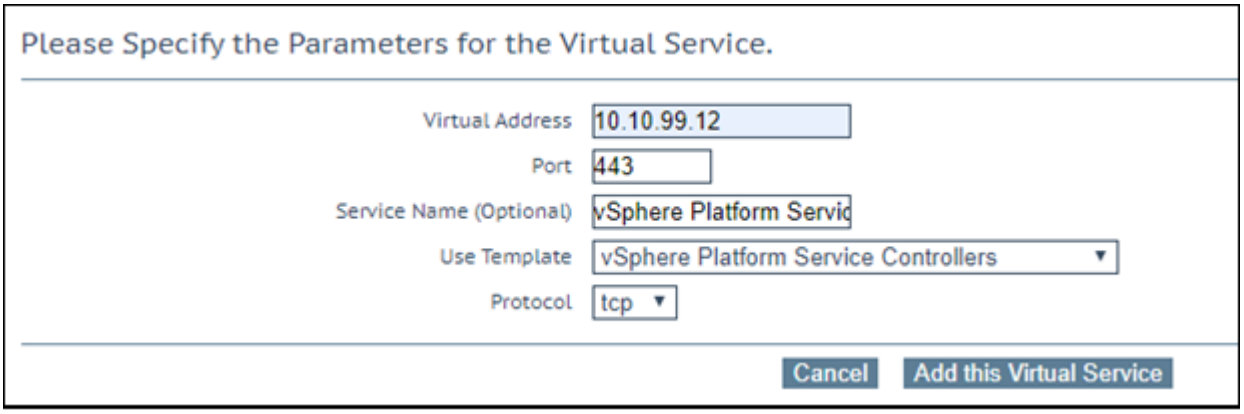
Create the Virtual Services

Refer to the following sections for instructions on how to create the Virtual Services and details on the recommended settings for VMware vSphere PSC.

Create a vSphere Platform Service Controllers Virtual Service

To add the Virtual Services for vSphere Platform Service Controller with the template, follow the steps below:

1. Click the **Add New** button.

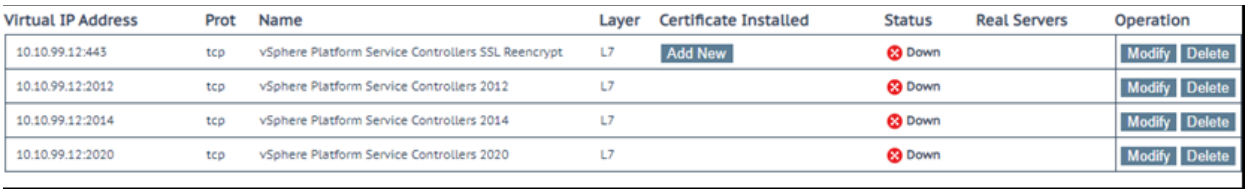


2. Enter a valid Virtual Address.
3. Select the **vSphere Platform Service Controllers** template from the **Use Template** drop-down list.
4. Click **Add this Virtual Service**.

Configure vSphere Platform Service Controller SSL ReEncrypt Virtual Service

To configure the vSphere Platform Service Controller SSL ReEncrypt Virtual Service, follow the steps below:

1. Select **View/Modify Services** under **Virtual Services** in the left-hand navigation.



Virtual IP Address	Prot	Name	Layer	Certificate Installed	Status	Real Servers	Operation
10.10.99.12:443	tcp	vSphere Platform Service Controllers SSL Reencrypt	L7	Add New	Down		Modify Delete
10.10.99.12:2012	tcp	vSphere Platform Service Controllers 2012	L7		Down		Modify Delete
10.10.99.12:2014	tcp	vSphere Platform Service Controllers 2014	L7		Down		Modify Delete
10.10.99.12:2020	tcp	vSphere Platform Service Controllers 2020	L7		Down		Modify Delete

2. Click **Modify** on the **vSphere Platform Services Controllers SSL ReEncrypt** Virtual Service.
3. Expand the **SSL Properties** section.
4. Select a valid certificate that was previously imported and click the > button to assign the certificate.
5. Click **Set Certificate**.
6. Expand the **Real Servers** section.
7. Click **Add New**.
8. Enter the **Real Server Address**.
9. Confirm that **Port 443** is entered.
10. Click **Add This Real Server**.
11. Add additional Real Servers as needed.

Related Links

For details, see the following topics:

- vSphere Platform Service Controllers Virtual Service Recommended API Settings (optional)

vSphere Platform Service Controllers Virtual Service Recommended API Settings (optional)

This table outlines the API parameters and values set using the Progress Kemp application template. These settings can be used with scripts and automation tools.

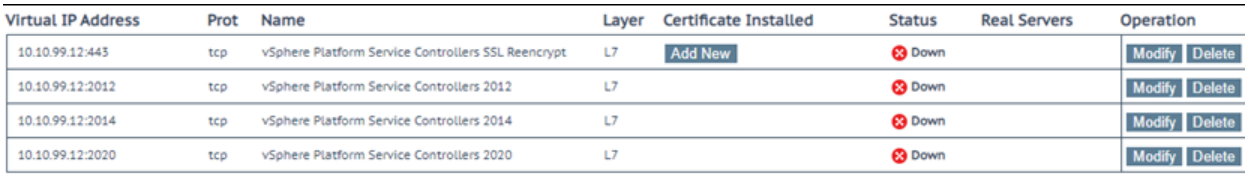
API Parameters	API Value
port	443
prot	tcp
SubnetOriginating	1
SSLAcceleration	1
SSLReencrypt	1
Persist	src
PersistTimeout	28800
Schedule	lc
Idletime	28800
CheckType	https
CheckURL	/websso

API Parameters	API Value
CheckUseGet	HEAD

vSphere Platform Service Controllers 2012 Virtual Service

To configure the vSphere Platform Service Controllers 2012 Virtual Service, follow the steps below:

1. Select **View/Modify Services** under **Virtual Services** in the left-hand navigation.



2. Click **Modify** on the **vSphere Platform Service Controller 2012** Virtual Service.
3. Expand the **Real Servers** section.
4. Click **Add New**.
5. Enter the **Real Server** Address.
6. Confirm that **Port 2012** is entered.
7. Click **Add This Real Server**.
8. Add additional Real Servers as needed.

Related Links

For details, see the following topics:

- vSphere Platform Service Controllers 2012 Virtual Service Recommended API Settings (optional)

vSphere Platform Service Controllers 2012 Virtual Service Recommended API Settings (optional)

This table outlines the API parameters and values set using the Progress Kemp application template. These settings can be used with scripts and automation tools.

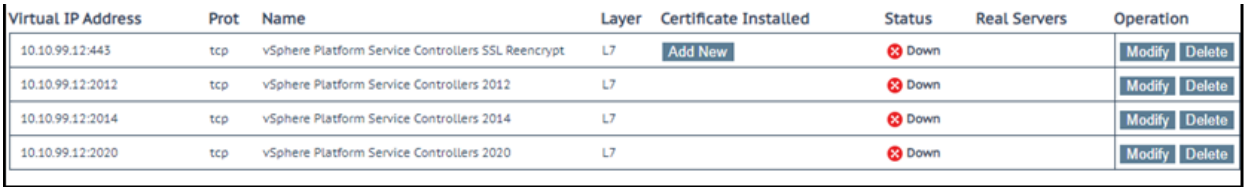
Option	Value
port	2012
prot	tcp

Option	Value
VStype	gen
SubnetOriginating	1
Persist	src
PersistTimeout	28800
Schedule	lc
Idletime	28800
CheckType	tcp
CheckPort	2012

Configure vSphere Platform Service Controllers 2014 Virtual Service

To configure the vSphere Platform Service Controllers 2014 Virtual Service, follow the steps below:

1. Select **View/Modify Services** under **Virtual Services** in the left-hand navigation



2. Click **Modify** on the **vSphere Platform Service Controller 2014** Virtual Service.
3. Expand the **Real Servers** section.
4. Click **Add New**.
5. Enter the **Real Server Address**.
6. Confirm that **Port 2014** is entered.
7. Click **Add This Real Server**.

8. Add additional Real Servers as needed.

Related Links

For details, see the following topics:

- vSphere Platform Service Controllers 2014 Virtual Service Recommended API Settings (optional)

vSphere Platform Service Controllers 2014 Virtual Service Recommended API Settings (optional)

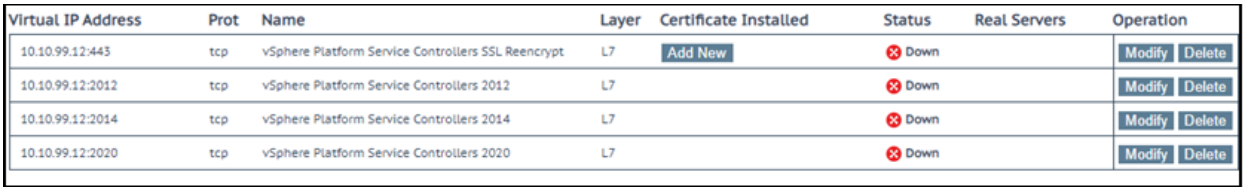
This table outlines the API parameters and values set using the Progress Kemp application template. These settings can be used with scripts and automation tools.

Option	Value
port	2014
prot	tcp
VStype	gen
SubnetOriginating	1
Persist	src
PersistTimeout	28800
Schedule	lc
Idletime	28800
CheckType	tcp
CheckPort	2014

Configure vSphere Platform Service Controllers 2020 Virtual Service

To configure the vSphere Platform Service Controllers 2020 Virtual Service, follow the steps below:

1. Select **View/Modify Services** under **Virtual Services** in the left-hand navigation.



2. Click **Modify** on the **vSphere Platform Service Controller 2020** Virtual Service.
3. Expand the **Real Servers** section.
4. Click **Add New**.
5. Enter the **Real Server Address**.
6. Confirm that **Port 2020** is entered.
7. Click **Add This Real Server**.
8. Add additional Real Servers as needed

Related Links

For details, see the following topics:

- vSphere Platform Service Controllers 2020 Service Recommended API Settings (optional)

vSphere Platform Service Controllers 2020 Service Recommended API Settings (optional)

This table outlines the API parameters and values set using the Progress Kemp application template. These settings can be used with scripts and automation tools.

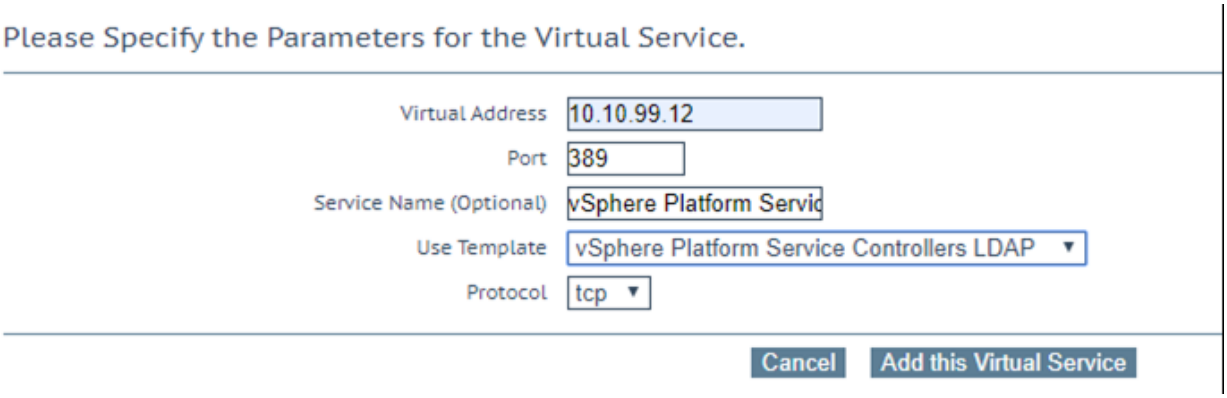
Option	Value
port	2020
prot	tcp
VStype	gen
SubnetOriginating	1

Option	Value
Persist	src
PersistTimeout	28800
Schedule	lc
Idletime	28800
CheckType	tcp
CheckPort	2020

Create a vSphere PSC LDAP Virtual Service

The following are the steps involved and the recommended settings to configure the VSphere PSC Systems LDAP Virtual Service. To add the Virtual Services for vSphere Platform Service Controller LDAP with the template, follow the steps below:

1. Click the **Add New button**.



2. Enter a valid Virtual Address.
3. Select the **vSphere Platform Service Controllers LDAP** template from the **Use Template** drop-down list.
4. Click **Add This Virtual Service**.
5. Expand the **Real Servers** section.

6. Click **Add New**.
7. Enter the **Real Server Address**.
8. Confirm that **Port 389** is entered.
9. Click **Add This Real Server**.
10. Add additional Real Servers as needed.

vSphere Platform Service Controllers LDAP Virtual Service Recommended API Settings (optional)

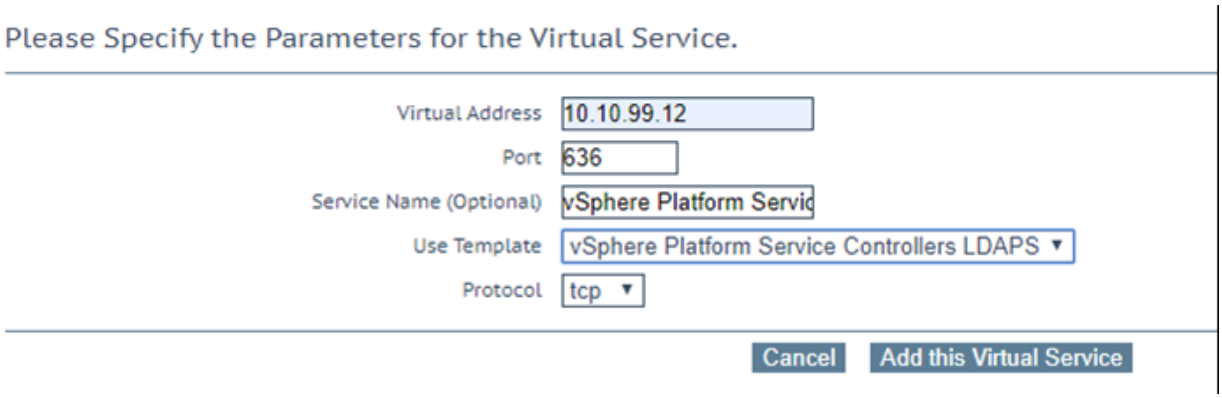
This table outlines the API parameters and values set using the Progress Kemp application template. These settings can be used with scripts and automation tools.

API Parameters	API Value
port	389
prot	tcp
VStype	gen
SubnetOriginating	1
Persist	src
PersistTimeout	28800
Schedule	lc
Idletime	28800
CheckType	tcp
CheckPort	389

Create a vSphere PSC LDAPS Virtual Service

The following are the steps involved and the recommended settings to configure the vSphere PSC Systems LDAPS Virtual Service. To add the Virtual Services for vSphere Platform Service Controller LDAPS with the template, follow the steps below:

1. . Click the **Add New** button.



2. Enter a Virtual Address.
3. Select the **vSphere Platform Service Controllers LDAPS** template from the **Use Template** drop-down list.
4. Click **Add This Virtual Service**.
5. Expand the **Real Servers** section.
6. Click **Add New**.
7. Enter the **Real Server Address**.
8. Confirm that **Port 636** is entered.
9. Click **Add This Real Server**.
10. Add additional Real Servers as needed.

vSphere Platform Service Controllers LDAPS Virtual Service Recommended API Settings (optional)

This table outlines the API parameters and values set using the Progress Kemp application template. These settings can be used with scripts and automation tools.

API Parameters	API Value
port	636
prot	tcp

API Parameters	API Value
VStype	gen
SubnetOriginating	1
Persist	src
PersistTimeout	28800
Schedule	lc
Idletime	28800
CheckType	tcp
CheckPort	636

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References

Unless otherwise specified, the following documents can be found at https://docs.progress.com/.

Virtual Services and Templates, Feature Description