



VMware vSphere_PSC

Deployment Guide

UPDATED: 27 July 2023

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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

1.1 Document Purpose

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

1.2 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 6.0.

2 PSC Template

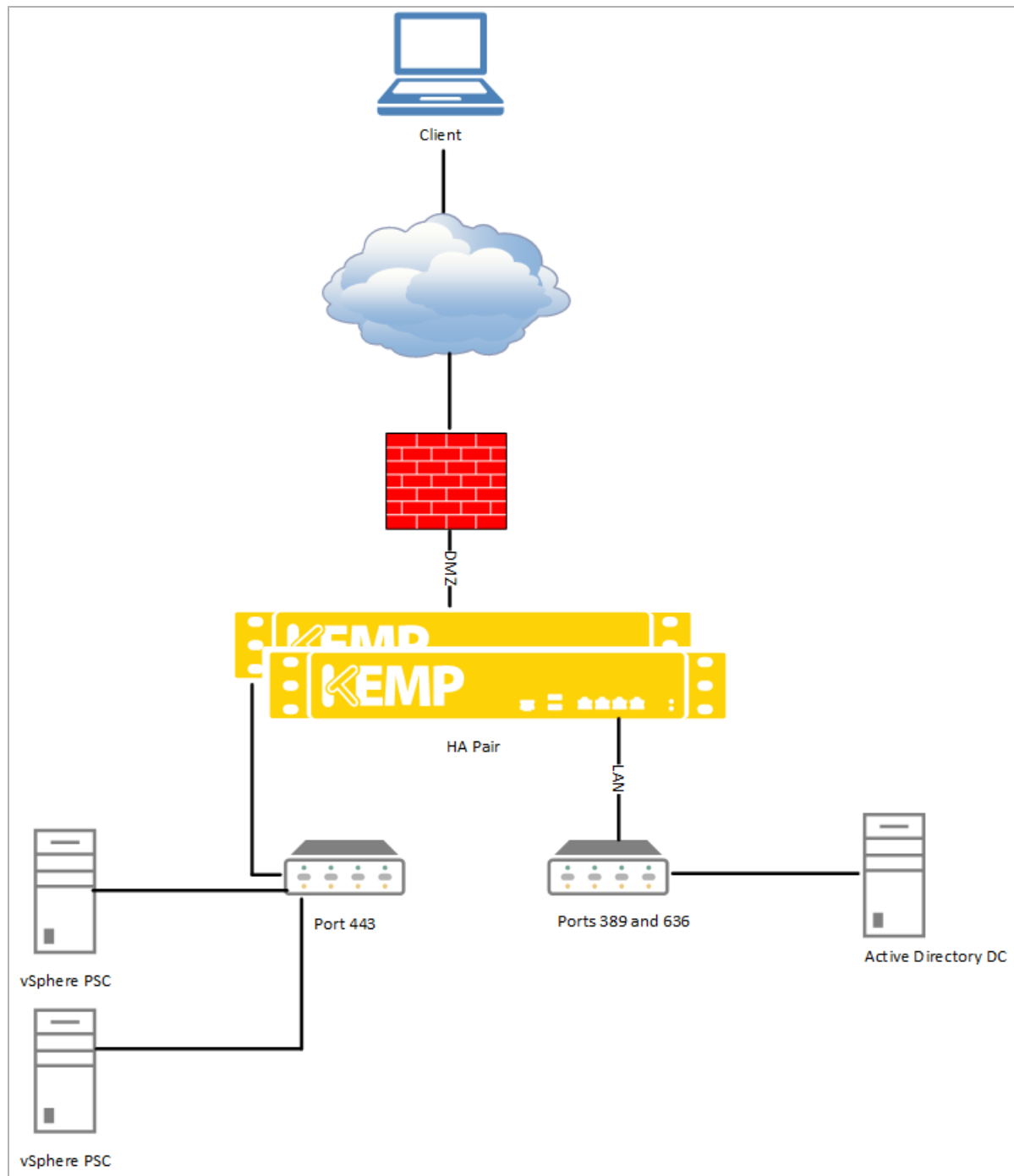
Kemp has developed a template containing our recommended settings for PSC. You can install this template on the LoadMaster and use it when creating Virtual Services. Using a template automatically populates the settings in the Virtual Services, which is quicker and easier than manually configuring each 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 **Section Configure the LoadMaster** of this document.

3 Architecture



4 Configure the LoadMaster

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

4.1 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**.

4 Configure the LoadMaster

Enable Server NAT	<input checked="" type="checkbox"/>
Connection Timeout (secs)	<input type="text" value="660"/> <input type="button" value="Set Time"/> <small>(Valid values:0, 60-86400)</small>
Enable Non-Local Real Servers	<input type="checkbox"/>
Enable Alternate GW support	<input type="checkbox"/>
Enable TCP Timestamps	<input type="checkbox"/>
Enable TCP Keepalives	<input checked="" type="checkbox"/>
Enable Reset on Close	<input type="checkbox"/>
Subnet Originating Requests	<input checked="" type="checkbox"/>
Enforce Strict IP Routing	<input type="checkbox"/>
Handle non HTTP Uploads	<input type="checkbox"/>
Enable Connection Timeout Diagnostics	<input type="checkbox"/>
Enable SSL Renegotiation	<input checked="" type="checkbox"/>
Size of SSL Diffie-Hellman Key Exchange	<input type="text" value="2048 Bits"/>
Use Default Route Only	<input type="checkbox"/>
HTTP(S) Proxy	<input type="text"/> <input type="button" value="Set HTTP(S) Proxy"/>

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

4.2 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**.

4.3 Create the Virtual Services

4.3.1 Create a vSphere PSC SSL Reencrypt Virtual Service

The following are the steps involved and the recommended settings to configure the vSphere PSC Systems SSL Reencrypt Service:

1. In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.

4 Configure the LoadMaster

Please Specify the Parameters for the Virtual Service.

Virtual Address

Port

Service Name (Optional)

Use Template

Select a Template

▼

Protocol

tcp

▼

Cancel

Add this Virtual Service

2. Enter a valid Virtual Address.
3. Enter **443** as the **Port**.
4. Enter a recognizable Service Name, such as **vSphere Platform Service Controllers Reencrypt Virtual Service**.
5. Click **Add this Virtual Service**.
6. Configure the settings as recommended in the following table:

Section	Option	Value	Comment
Standard Options	Persistence Mode	Source IP Address	
	Timeout	8 Hours	
	Scheduling Method	least connection	
	Idle Connection Timeout	28800	Click Set Idle Timeout .
SSL Properties	SSL Acceleration	Enabled	
	Reencrypt	Enabled	
	Cipher Set	Best Practices	

4 Configure the LoadMaster

Section	Option	Value	Comment
Real Servers	URL	/websso	Click Set URL .

7. Add the Real Servers:

- Click **Add New**.
- Enter the address of the vSphere PSC Medical Systems HTTP Server.
- Complete the other fields as required.
- Click **Add this Real Server** then click **OK** to the pop-up message.
- Repeat the steps above to add more Real Servers as needed, based on your environment.

4.3.2 Create a vSphere PSC 2012 Virtual Service

The following are the steps involved and the recommended settings to configure the vSphere PSC Systems 2012 Virtual Service:

- In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.

Please Specify the Parameters for the Virtual Service.

Virtual Address

Port

Service Name (Optional)

Use Template

Protocol

- Enter a valid Virtual Address.
- Enter **2012** as the **Port**.
- Enter a recognizable Service Name, such as **vSphere PSC 2012**.
- Click **Add this Virtual Service**.
- Configure the settings as recommended in the following table:

4 Configure the LoadMaster

Section	Option	Value	Comment
Standard Options	Persistence Mode	Source IP Address	
	Timeout	8 Hours	
	Scheduling Method	least connection	
	Idle Connection Timeout	28800	Click Set Idle Timeout .
Real Servers	Checked Port	2012	

7. Add the Real Servers:

- Click **Add New**.
- Enter the address of the vSphere PSC 2012 Server.
- Complete the other fields as required.
- Click **Add this Real Server** then click **OK** to the pop-up message.
- Repeat the steps above to add more Real Servers as needed, based on your environment.

4.3.3 Create a vSphere PSC 2014 Virtual Service

The following are the steps involved and the recommended settings to configure the vSphere PSC 2014 Virtual Service:

- In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.

4 Configure the LoadMaster

Please Specify the Parameters for the Virtual Service.

Virtual Address

Port

Service Name (Optional)

Use Template

Select a Template

Protocol

tcp

Cancel

Add this Virtual Service

2. Enter a valid Virtual Address.
3. Enter **2014** as the Port.
4. Enter a recognizable Service Name, such as **vSphere PSC 2014**.
5. Click **Add this Virtual Service**.
6. Configure the settings as recommended in the following table:

Section	Option	Value	Comment
Standard Options	Persistence Mode	Source IP Address	
	Timeout	8 Hours	
	Scheduling Method	least connection	
	Idle Connection Timeout	28800	Click Set Idle Timeout .
Real Servers	Checked Port	2014	

7. Add the Real Servers:
 - a. Click **Add New**.
 - b. Enter the address of the vSphere PSC 2014 Server.
 - c. Complete the other fields as required.
 - d. Click **Add this Real Server** then click **OK** to the pop-up message.
 - e. Repeat the steps above to add more Real Servers as needed, based on your environment.

4 Configure the LoadMaster

4.3.4 Create a vSphere PSC 2020 Virtual Service

The following are the steps involved and the recommended settings to configure the vSphere PSC 2020 Virtual Service:

1. In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.

Please Specify the Parameters for the Virtual Service.

Virtual Address

Port

Service Name (Optional)

Use Template

Select a Template

▼

Protocol

tcp

▼

Cancel

Add this Virtual Service

2. Enter a valid Virtual Address.
3. Enter **2020** as the **Port**.
4. Enter a recognizable Service Name, such as **vSphere Platform Service Controllers 2020**.
5. Click **Add this Virtual Service**.
6. Configure the settings as recommended in the following table:

Section	Option	Value	Comment
Standard Options	Persistence Mode	Source IP Address	
	Timeout	8 Hours	
	Scheduling Method	least connection	
	Idle Connection Timeout	28800	Click Set Idle Timeout .
Real Servers	Checked Port	2020	

7. Add the Real Servers:

4 Configure the LoadMaster

- Click **Add New**.
- Enter the address of the vSphere PSC 2020 Server.
- Complete the other fields as required.
- Click **Add this Real Server** then click **OK** to the pop-up message.
- Repeat the steps above to add more Real Servers as needed, based on your environment.

4.3.5 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:

- In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.

Please Specify the Parameters for the Virtual Service.

Virtual Address

Port

Service Name (Optional)

Use Template

Protocol

- Enter a valid Virtual Address.
- Enter **389** as the **Port**.
- Enter a recognizable Service Name, such as **vSphere Platform Service Controller LDAP**.
- Click **Add this Virtual Service**.
- Configure the settings as recommended in the following table:

Section	Option	Value	Comment
Standard Options	Persistence Mode	Source IP Address	
	Timeout	8 Hours	
	Scheduling	least connection	

4 Configure the LoadMaster

Section	Option	Value	Comment
	Method		
	Idle Connection Timeout	28800	Click Set Idle Timeout .
Real Servers	Checked Port	389	

7. Add the Real Servers:

- Click **Add New**.
- Enter the address of the vSphere PSC LDAP Server.
- Click **Add this Real Server** then click **OK** to the pop-up message.
- Repeat the steps above to add more Real Servers as needed, based on the environment.

4.3.6 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:

- In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.

Please Specify the Parameters for the Virtual Service.

Virtual Address

Port

Service Name (Optional)

Use Template

Select a Template ▼

Protocol

tcp ▼

Cancel

Add this Virtual Service

- Enter a valid Virtual Address.
- Enter **636** as the **Port**.
- Enter a Service Name, for example **vSphere PSC LDAPS**.
- Click **Add this Virtual Service**.

4 Configure the LoadMaster

6. Configure the settings as recommended in the following table:

Section	Option	Value
Standard Options	Persistence Mode	Source IP Address
	Timeout	8 Hours
	Scheduling Method	least connection
	Idle Connection Timeout	28800
Real Servers	Checked Port	636

7. Add the Real Servers:

- a. Click **Add New**.
- b. Enter the address of the vSphere LDAPS Server.
- c. Click **Add this Real Server** then click **OK** to the pop-up message.
- d. Repeat the steps above to add more Real Servers as needed, based on the environment.

References

Unless otherwise specified, the following documents can be found at _
<http://kemptechnologies.com/documentation>.

Virtual Services and Templates, Feature Description

Last Updated Date

This document was last updated on 27 July 2023.