

VMware vSphere PSC

Deployment Guide

UPDATED: 27 July 2023

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

These materials and all Progress® software products are copyrighted and all rights are reserved by Progress Software Corporation. The information in these materials is subject to change without notice, and Progress Software Corporation assumes no responsibility for any errors that may appear therein. The references in these materials to specific platforms supported are subject to change.

#1 Load Balancer in Price/Performance, 360 Central, 360 Vision, Chef, Chef (and design), Chef Habitat, Chef Infra, Code Can (and design), Compliance at Velocity, Corticon, Corticon.js, DataDirect (and design), DataDirect Cloud, DataDirect Connect, DataDirect Connect64, DataDirect XML Converters, DataDirect XQuery, DataRPM, Defrag This, Deliver More Than Expected, DevReach (and design), Driving Network Visibility, Flowmon, Inspec, Ipswitch, iMacros, K (stylized), Kemp, Kemp (and design), Kendo UI, Kinvey, LoadMaster, MessageWay, MOVEit, NativeChat, OpenEdge, Powered by Chef, Powered by Progress, Progress, Progress Software Developers Network, SequeLink, Sitefinity (and Design), Sitefinity, Sitefinity (and design), Sitefinity Insight, SpeedScript, Stylized Design (Arrow/3D Box logo), Stylized Design (C Chef logo), Stylized Design of Samurai, TeamPulse, Telerik, Telerik (and design), Test Studio, WebSpeed, WhatsConfigured, WhatsConnected, WhatsUp, and WS_FTP are registered trademarks of Progress Software Corporation or one of its affiliates or subsidiaries in the U.S. and/or other countries.

Analytics360, AppServer, BusinessEdge, Chef Automate, Chef Compliance, Chef Desktop, Chef Workstation, Corticon Rules, Data Access, DataDirect Autonomous REST Connector, DataDirect Spy, DevCraft, Fiddler, Fiddler Classic, Fiddler Everywhere, Fiddler Jam, FiddlerCap, FiddlerCore, FiddlerScript, Hybrid Data Pipeline, iMail, InstaRelinker, JustAssembly, JustDecompile, JustMock, KendoReact, OpenAccess, PASOE, Pro2, ProDataSet, Progress Results, Progress Software, ProVision, PSE Pro, Push Jobs, SafeSpaceVR, Sitefinity Cloud, Sitefinity CMS, Sitefinity Digital Experience Cloud, Sitefinity Feather, Sitefinity Thunder, SmartBrowser, SmartComponent, SmartDataBrowser, SmartDataObjects, SmartDataView, SmartDialog, SmartFolder, SmartFrame, SmartObjects, SmartPanel, SmartQuery, SmartViewer, SmartWindow, Supermarket, SupportLink, Unite UX, and WebClient are trademarks or service marks of Progress Software Corporation and/or its subsidiaries or affiliates in the U.S. and other countries. Java is a registered trademark of Oracle and/or its affiliates. Any other marks contained herein may be trademarks of their respective owners.

Please refer to the NOTICE.txt or Release Notes – Third-Party Acknowledgements file applicable to a particular Progress product/hosted service offering release for any related required third-party acknowledgements.

 © 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

Table of Contents

1 Introduction **5**

1.1 Document Purpose 5

1.2 Intended Audience 6

2 PSC Template **7**

3 Architecture **8**

4 Configure the LoadMaster **9**

4.1 Enable Subnet Originating Requests Globally 9

4.2 Enable Check Persist Globally 10

4.3 Create the Virtual Services 10

4.3.1 Create a vSphere Platform Service Controllers Virtual Service 10

4.3.1.1 Configure vSphere Platform Service Controller SSL ReEncrypt Virtual Service 11

4.3.1.1.1 vSphere Platform Service Controllers Virtual Service Recommended API Settings (optional) 12

4.3.1.2 vSphere Platform Service Controllers 2012 Virtual Service 12

4.3.1.2.1 vSphere Platform Service Controllers 2012 Virtual Service Recommended API Settings (optional) 13

4.3.1.3 Configure vSphere Platform Service Controllers 2014 Virtual Service 13

4.3.1.3.1 vSphere Platform Service Controllers 2014 Virtual Service Recommended API Settings (optional) 14

4.3.1.4 Configure vSphere Platform Service Controllers 2020 Virtual Service 14

4.3.1.4.1 vSphere Platform Service Controllers 2020 Service Recommended API Settings (optional) 15

4.3.2 Create a vSphere PSC LDAP Virtual Service 16

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

4.3.2.1 vSphere Platform Service Controllers LDAP Virtual Service Recommended API Settings (optional) 16

4.3.3 Create a vSphere PSC LDAPS Virtual Service 17

4.3.3.1 vSphere Platform Service Controllers LDAPS Virtual Service Recommended API Settings (optional) 18

References **19**

Last Updated Date **20**

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

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.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

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.X.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

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.

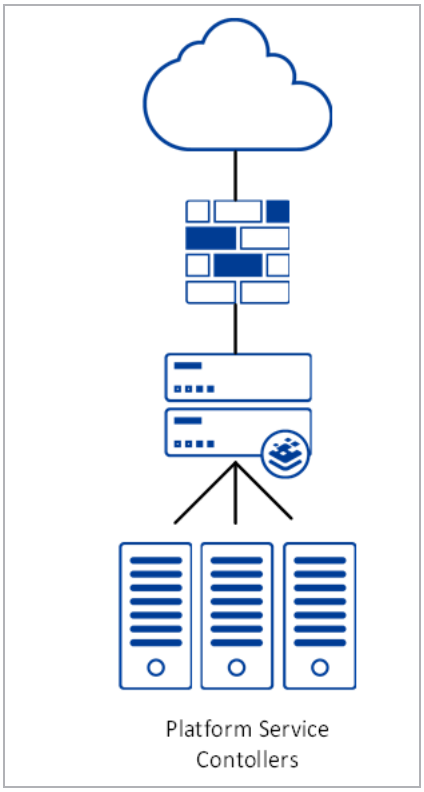
Download released templates from the following page: LoadMaster Templates.

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 the **Configure the LoadMaster** section.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

3 Architecture



© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

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.

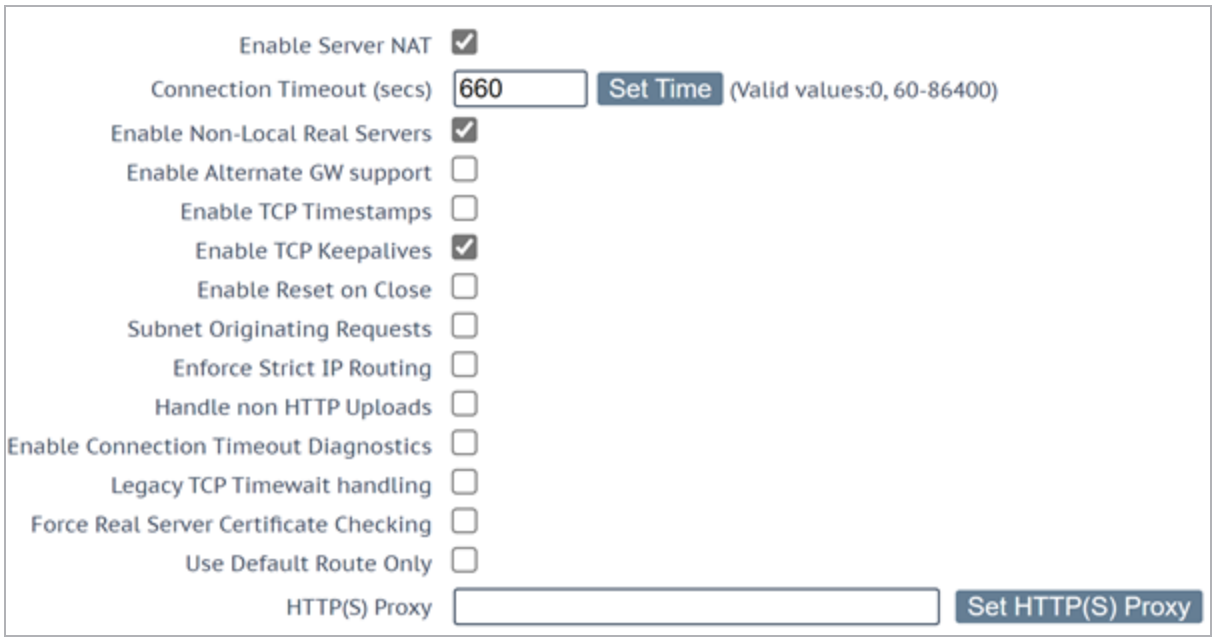
When **Subnet Originating Requests** is enabled, the LoadMaster routes traffic so that the Real Server sees traffic arriving from the LoadMaster interface that is in that network/subnet.

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**.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.



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**.

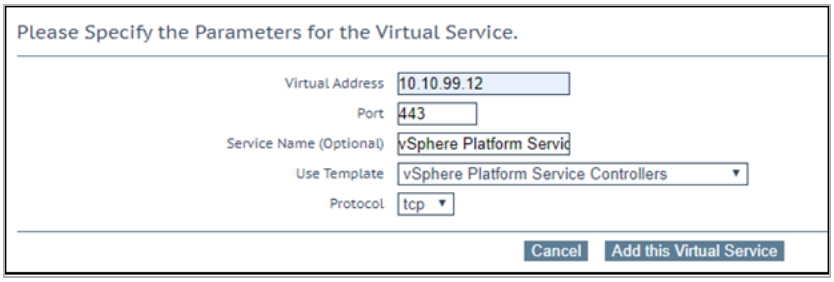
4.3 Create the Virtual Services

4.3.1 Create a vSphere 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.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.



2. Enter a valid Virtual Address.

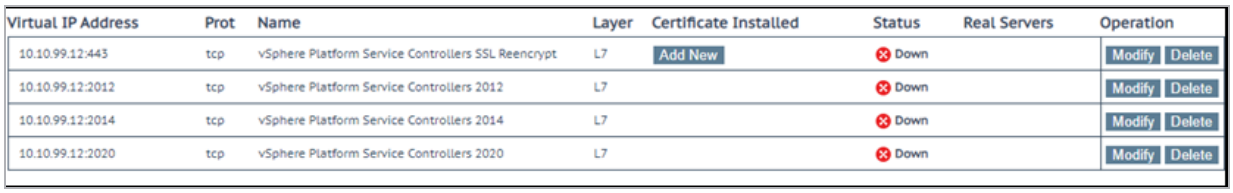
3. Select the **vSphere Platform Service Controllers** template from the **Use Template** drop-down list.

4. Click **Add this Virtual Service**.

4.3.1.1 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.



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**.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

11. Add additional Real Servers as needed.

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

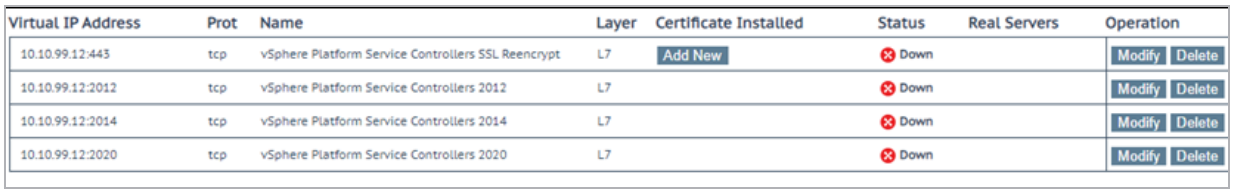
This table outlines the API parameters and values set using the Kemp application template. These settings can be used with scripts and automation tools.

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
CheckUseGet	HEAD

4.3.1.2 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.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

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.

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

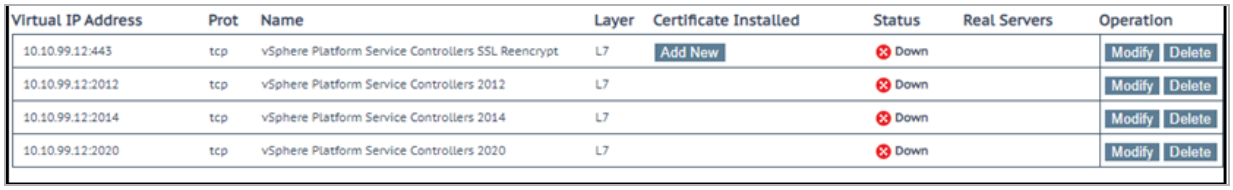
This table outlines the API parameters and values set using the Kemp application template. These settings can be used with scripts and automation tools.

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

4.3.1.3 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



© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

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.

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

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

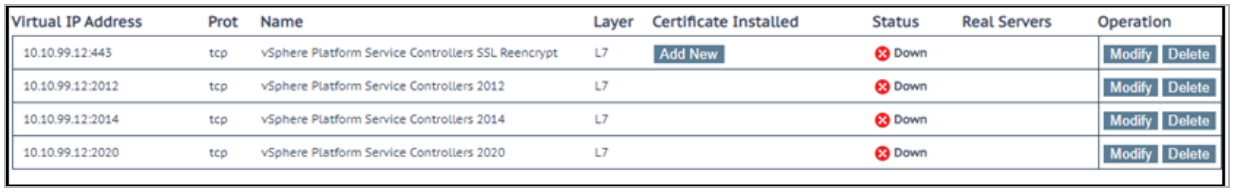
Option	Value
port	2014
prot	tcp
VStype	gen
SubnetOriginating	1
Persist	src
PersistTimeout	28800
Schedule	lc
Idletime	28800
CheckType	tcp
CheckPort	2014

4.3.1.4 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.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.



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 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

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

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

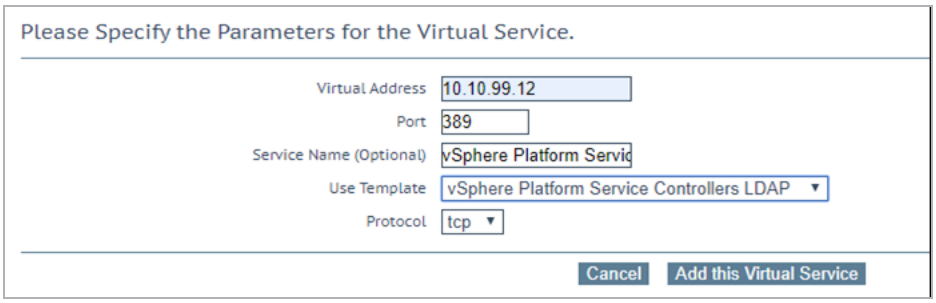
Option	Value
port	2020
prot	tcp
VStype	gen
SubnetOriginating	1
Persist	src
PersistTimeout	28800
Schedule	lc
Idletime	28800
CheckType	tcp
CheckPort	2020

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

4.3.2 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.

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

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

API Parameters	API Value
port	389

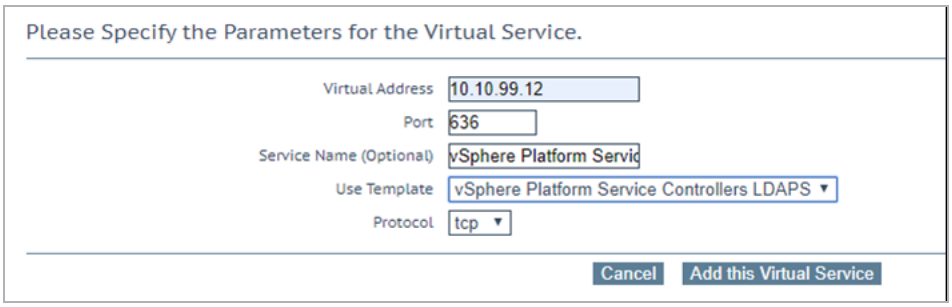
© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

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

4.3.3 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**.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

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.

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

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

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

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

References

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

Virtual Services and Templates, Feature Description

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

Last Updated Date

This document was last updated on 27 July 2023.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.