

SubVSs

Feature Description

UPDATED: 28 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 **4**

1.1 Document Purpose 4

1.2 Intended Audience 4

2 Advantages of SubVSs **5**

3 Prerequisites **6**

4 Add/Modify/Delete a SubVS **7**

4.1 Add a SubVS 7

4.2 Modify a SubVS 8

4.3 Delete a SubVS 9

4.4 SubVS WUI Options 10

References **12**

Last Updated Date **13**

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

1 Introduction

From within a Virtual Service, one or more 'Sub-Virtual Services' (SubVSs) can be created. SubVSs are useful when there are complex applications that require a larger number of Virtual Services. SubVSs may be used for certain configurations such as Exchange or Lync.

1.1 Document Purpose

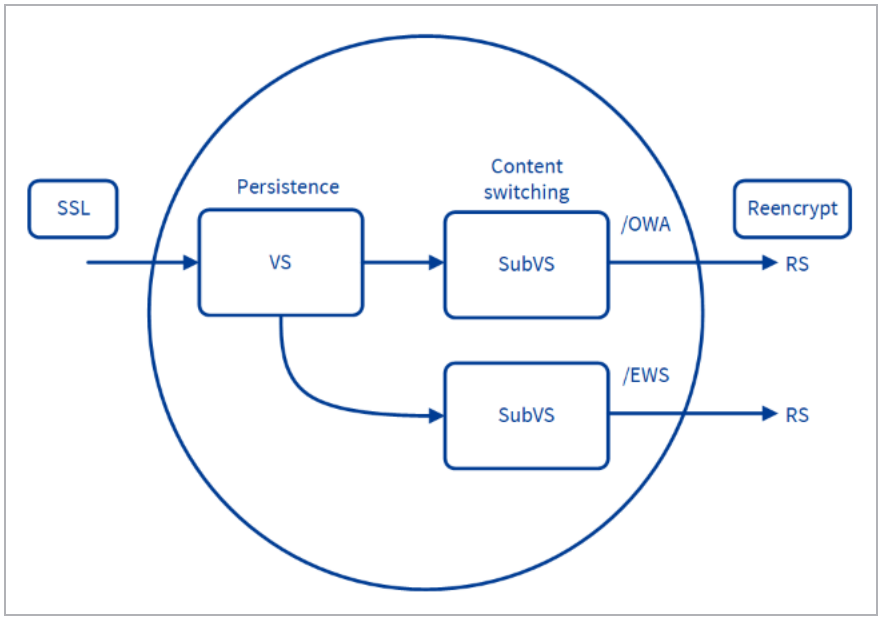
This document describes how to add and configure SubVSs on the Kemp LoadMaster using the LoadMaster Web User Interface (WUI).

1.2 Intended Audience

This document is intended to help anyone who wishes to learn about or implement SubVSs on their LoadMaster configuration.

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

2 Advantages of SubVSs



Using SubVSs has many advantages, such as:

- SubVSs are linked to, and use the IP address of, the ‘parent’ Virtual Service.
- Using SubVSs reduces the number of IP addresses required by applications such as Lync or Exchange
- SubVSs do not require non-transparency
- SubVSs may have different settings (such as content rules) to the parent Virtual Service and to each other
- Using a SubVS provides the ability to have content switching and persistency on the same Virtual Service
- Using a SubVS gives the ability to perform multiple health checks on the same Virtual Service

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

3 Prerequisites

There are a few prerequisites/points to note before setting up a SubVS:

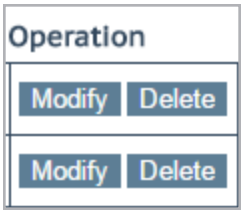
- Before a SubVS can be added, you must set up a Virtual Service. For steps on how to add a Virtual Service, refer to the **Virtual Services and Templates, Feature Description** on the Kemp Documentation Page.
- Real Servers and SubVSs cannot be associated with the same Virtual Service. A SubVS can only be added to a Virtual Service if there are no Real Servers set up on it already. A Real Server can be associated with a SubVS if required.
- Users with the Virtual Services permission cannot add a SubVS. Users with the Real Server permission can add a SubVS.
- SubVS functionality is only available on version 7.0-4 or later of the Kemp LoadMaster.
- There cannot be a SubVS of a SubVS.

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

4 Add/Modify/Delete a SubVS

To add, modify or delete a SubVS, follow the steps below:

1. Log in to the relevant Virtual LoadMaster (VLM).
2. In the main menu, click **Virtual Services** and select **View/Modify Services**.



3. Click the **Modify** button on the relevant Virtual Service.

- To add a SubVS, go to the **Add a SubVS** section.
- To modify a SubVS, go to the **Modify a SubVS** section.
- To delete a SubVS, go to the **Delete a SubVS** section.

4.1 Add a SubVS

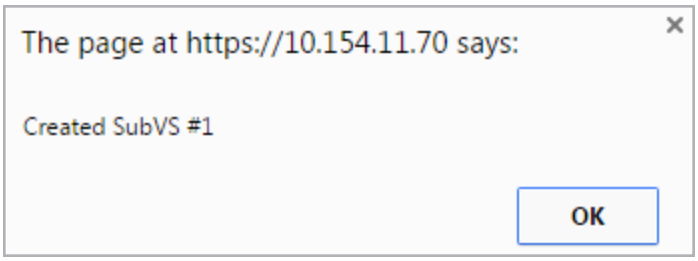
Following on from the steps in the **Add/Modify/Delete a SubVS** section, continue with the steps below.

1. Expand the **Real Servers** section (if there are already SubVSs on this Virtual Service this section will be called **SubVSs**).

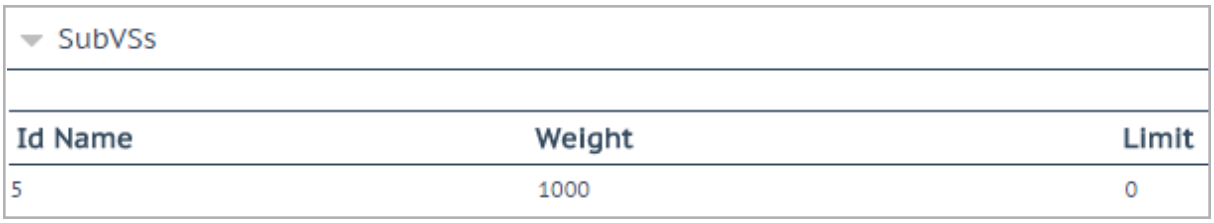


2. Click the **Add SubVS...** button (or **Add New ...** button if this is not the first SubVS to be added to this Virtual Service).

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



3. A success message will appear, as illustrated in the above screenshot. Click the **OK** button.



When the first SubVS is added to a Virtual Service the **Real Servers** section will be replaced with the **SubVSs** section in the **Virtual Services** configuration page**.** Any SubVSs of the relevant Virtual Service will be listed in this section.

4.2 Modify a SubVS

Following on from the **Add/Modify/Delete a SubVS** section, continue with the steps below:

1. Expand the **SubVSs** section.



2. Click **Modify**.

When the **Modify** button is clicked a configuration screen for the SubVS appears. This contains a subset of the configuration options that a normal Virtual Service has.

- For a description of SubVS specific fields, refer to the **SubVS WUI Options** section.
- For a description of the other (non-SubVS specific) fields and options, refer to the **Web User Interface (WUI), Configuration Guide**on the Kemp Documentation Page.
- For steps on how to configure a Virtual Service, refer to the **Virtual Services and Templates, Feature Description** on the Kemp Documentation Page.

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

When a SubVS is added to a Virtual Service, the **Transparency** setting on the Virtual Service is enabled and cannot be changed. This is because the Virtual Service forwards the client request transparently to the SubVS. The **Transparency** setting on the SubVS can be enabled or disabled as required.

The **SSL Acceleration** and **Reencrypt** options must be set in the parent Virtual Service, not in the SubVS. If these options are enabled, data is decrypted, then passed to the SubVS and re-encrypted on the way out of the SubVS.

For Exchange, Kemp recommends that **ESP** is not enabled on the parent service but instead is enabled in the SubVSs.

When using SNMP monitoring of ESP-enabled Virtual Services that were created using a template, ensure to monitor each SubVS directly rather than relying on the master service. This is because the Authentication Proxy sub-service will always be marked as up and, as a consequence, so will the master service.

4.3 Delete a SubVS

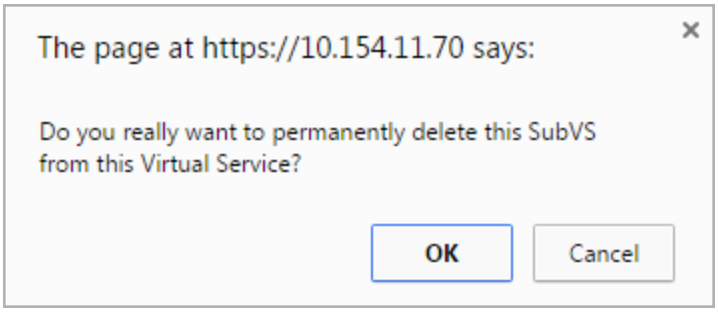
Following on from the **Add/Modify/Delete a SubVS** section, continue with the steps below to delete a SubVS:

1. Expand the **SubVSs** section.



2. On the SubVS that is to be deleted, click the **Delete** button.

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



3. Click **OK**.

The SubVS will be deleted. If this SubVS was the only SubVS on the Virtual Service, the **SubVSs** section will change back to the **Real Servers** section.

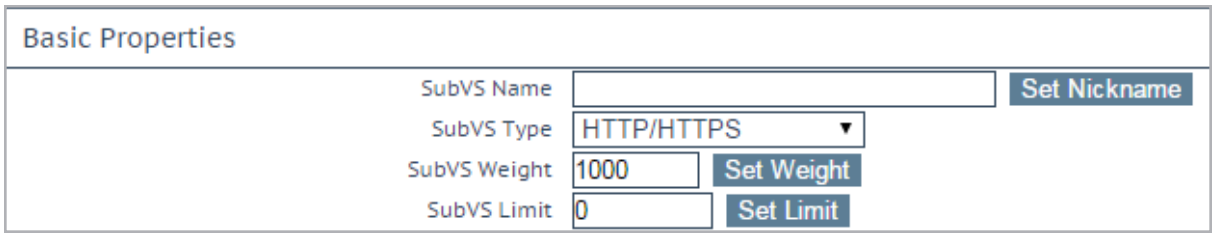
> A parent Virtual Service can only be deleted if its SubVSs have all been deleted.

4.4 SubVS WUI Options

Most of the fields in the SubVS properties screen are the same as the ones used for a normal Virtual Service.

For a description of the other fields and options, refer to the **Web User Interface (WUI), Configuration Guide** on the Kemp Documentation Page.

See below for descriptions of the SubVS specific fields.



SubVS Name: An identifiable name for the SubVS. This field is optional but Kemp recommend that SubVSs are named as it may get confusing if several SubVSs exist.

> In addition to the usual alphanumeric characters, the following 'special' characters can be used as part of the Service Name:
> **. @ - _**

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

However, there must be at least one alphanumeric character before the special characters.

SubVS Type: Setting this controls the options displayed for the SubVS. It's important to make sure the **SubVS Type** is set according to the type of application is being load balanced.

SubVS Weight: This will be used when determining the priority of the SubVS.

SubVS Limit: This is the maximum number of connections that can be forwarded to this SubVS before it is taken out of rotation from the main Virtual Service. The maximum limit is 100,000.

Reencryption SNI Hostname: In LoadMaster firmware version 7.2.52 and above, it is possible to set a Reencryption SNI Hostname at the SubVS level. If this is set in a SubVS, this overrides the parent Virtual Service value and/or the received SNI value.

© 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/loadmaster-documentation

Virtual Services and Templates, Feature Description

Web User Interface (WUI), Configuration Guide

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

Last Updated Date

This document was last updated on 28 July 2023.

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