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Kemp® LoadMaster®

Deployment Guide Ellucian Portal

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Introduction

Ellucian Portal is a web services and delivery environment tailored for higher education. It enables you to provide an interactive and collaborative environment. It supports a richer, more personalized user experience, improved information and service delivery and simplified administration and technology management.

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- Document Purpose
- Intended Audience

Document Purpose

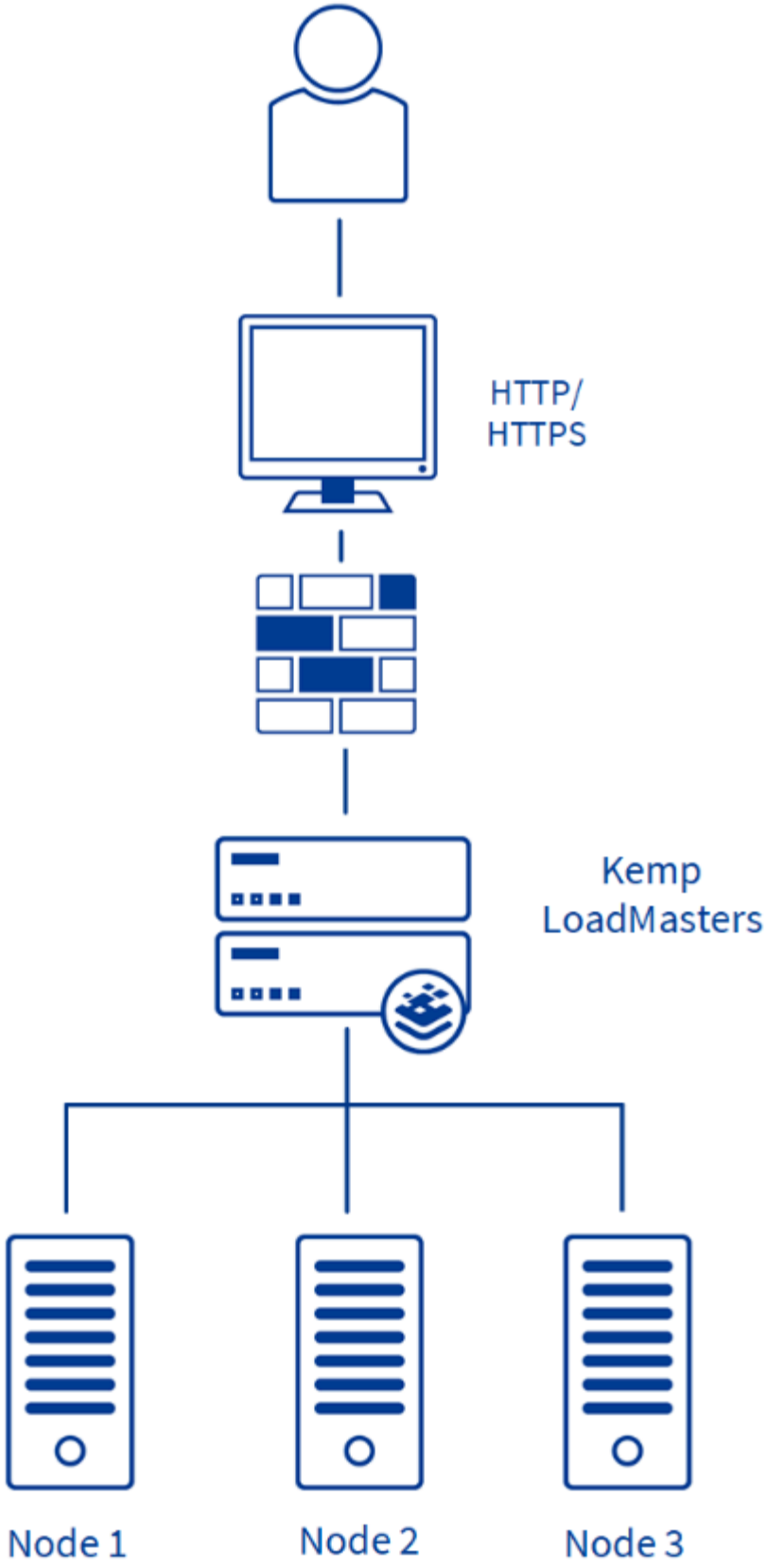
This document provides the recommended LoadMaster settings used when load balancing the Ellucian Portal workload. The Progress Kemp Support Team is available to provide solutions for scenarios not explicitly defined. For further details, refer to the: LoadMaster Support and Learning Hub.

Intended Audience

This document is for anyone deploying Ellucian Portal with a LoadMaster.

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Architecture


HTTP/
HTTPS
Kemp
LoadMasters
Node 1
Node 2
Node 3

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Template

Progress Kemp has developed a template containing our recommended settings for this workload. You can install this template to help create Virtual Services (VSs) because it automatically populates the settings. You can use the template to easily create the required VSs with the recommended settings. For some workloads, additional manual steps may be required such as assigning a certificate or applying port following. These steps are covered in the document, if needed.

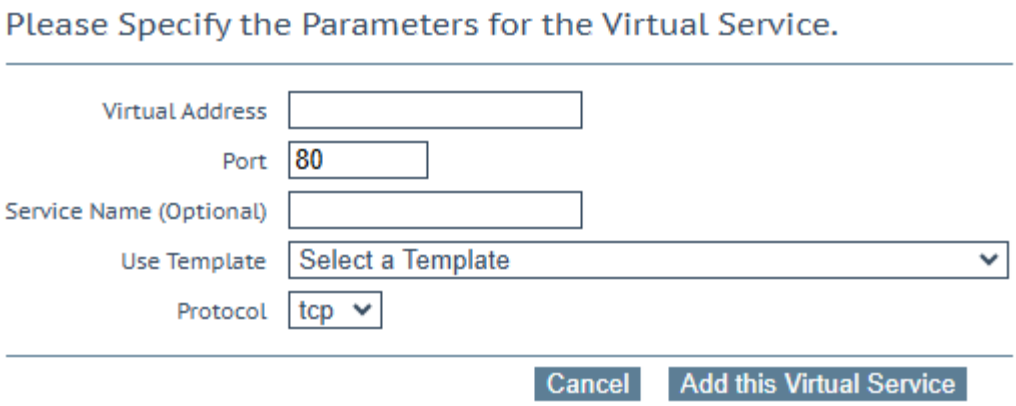
You can remove templates after use and this will not affect deployed services. If needed, you can make changes to any of the VS settings after using the template.

Download released templates from the following page: LoadMaster Templates.

You can import templates to the LoadMaster through the **Manage Templates** page under **Virtual Services** in the main menu of the LoadMaster User Interface (UI).

Click **Choose File**, select the template to install and click **Add New Template**. The template will then be available to select when you are adding a new Virtual Service.

To begin the process of creating a new Virtual Service, click **Virtual Services** and **Add New** in the main menu.



This opens the Virtual Service parameters page which prompts to enter the Virtual IP (VIP) address of the Virtual Service, the port, and the name to give the service and the protocol. You can select a previously-imported template in the **Use Template** drop-down list.

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

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Configure the LoadMaster

Follow the steps in the sections below to configure the LoadMaster with the recommended settings to load balance the Ellucian Portal workload.

Contents

- Enable Check Persist Globally
- Enable Subnet Originating Requests 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** drop-down arrow and select **Yes – Accept Changes**.

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 Real Server sees traffic originating from 10.20.20.21 (LoadMaster eth1 address) and responds correctly in most scenarios.

With **Subnet Originating Requests** disabled, the Real Server sees traffic originating from 10.0.0.15 (LoadMaster Virtual Service address on **eth0**) and responds to **eth0** which could cause asymmetric routing.

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 choose whether 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 User Interface (UI), go to **System Configuration > Miscellaneous Options > Network Options**.
2. Select the **Subnet Originating Requests** check box.

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Virtual Service - Ellucian Portal

This step-by-step set up of the Virtual Services leverages the Progress Kemp application template for Ellucian Portal.

The table in each section outlines the settings configured by the application template. You can use this information to manually configure the Virtual Services or use the LoadMaster Application Programming Interface (API) and automation tools.

Contents

- Create the Ellucian Portal HTTPS Re-Encrypted Virtual Service

Create the Ellucian Portal HTTPS Re-Encrypted Virtual Service

To configure the Virtual Service using the application template, perform the following steps:

1. In the main menu of the LoadMaster WUI, go to **Virtual Services > Add New**.
2. Type a valid **Virtual Address**.
3. Select **Ellucian Portal HTTPS Re-encrypted** in the **Use Template** drop-down list.
4. Click **Add this Virtual Service**.
5. In the left-hand navigation select **View/Modify Services**.
6. Click **Modify** on the **Ellucian Portal HTTPS Re-encrypted** Virtual Service on port TCP 443.

7. Expand the **SSL Properties** section.
8. Select the certificate to use from **Available Certificates** and click the arrow (**>**) to move it to **Assigned Certificates**.
9. Expand the **Real Servers** section.
10. Click **Add New**.
11. Type the **Real Server Address**.
12. Confirm that port **443** is entered.
13. Click **Add This Real Server**.
14. Repeat this step to add more Real Servers as needed.

Contents

- Portal HTTPS Re-encrypted Virtual Service Recommended API Settings (optional)
- Portal HTTPS Re-encrypted Redirect Virtual Service Recommended API Settings (optional)

Portal HTTPS Re-encrypted Virtual Service Recommended API Settings (optional)

This table outlines the API parameters and values set using the Progress Kemp application template. You can use these settings with scripts and automation tools.

API Parameter	API Value
port	443
prot	tcp
SubnetOriginating	1
Persist	active-cookie
Cookie	jsessionid
PersistTimeout	3600
Schedule	lc
Idletimeout	660
SSLAcceleration	1
SSLReencrypt	1
CipherSet	BestPractices
ClientCert	0
CheckUseGet	0

Portal HTTPS Re-encrypted Redirect Virtual Service Recommended API Settings (optional)

This table outlines the API parameters and values set using the Progress Kemp application template. You can use these settings with scripts and automation tools.

API Parameter	API Value
port	80
prot	tcp
Transparent	0
Persist	none
Schedule	rr