



# RabbitMQ

## Deployment Guide

UPDATED: 27 July 2023

## Copyright Notices

**© 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.

# Table of Contents

---

<b>1 Introduction</b>	<b>4</b>
1.1 Document Purpose	4
1.2 Intended Audience	4
<b>2 Template</b>	<b>5</b>
<b>3 Architecture</b>	<b>6</b>
<b>4 Service Configuration</b>	<b>7</b>
4.1 Enable Subnet Originating Requests Globally	7
4.2 Configuring the RabbitMQ Virtual Service	8
<b>References</b>	<b>10</b>
<b>Last Updated Date</b>	<b>11</b>

# 1 Introduction

RabbitMQ is an open source application that enables robust messaging for applications. It implements the Advanced Message Queuing Protocol (AMQP), the emerging standard for high performance enterprise messaging. The RabbitMQ server is a robust and scalable implementation of an AMQP broker.

The Kemp LoadMaster is used to load balance the RabbitMQ workload. The LoadMaster offers advanced Layer 4 and Layer 7 server load balancing, SSL Acceleration and a multitude of other advanced Application Delivery Controller (ADC) features. The LoadMaster intelligently and efficiently distributes user traffic among the application servers so that users get the best experience possible. Note that the Kemp template supports up to version 3.6 of RabbitMQ.

## 1.1 Document Purpose

This document provides the recommended LoadMaster settings used when load balancing the RabbitMQ workload. The Kemp Support Team is available to provide solutions for scenarios not explicitly defined. The Kemp support site can be found at: <https://support.kemptechnologies.com>

## 1.2 Intended Audience

This document is intended to be read by anyone who is interested in configuring the LoadMaster to optimize RabbitMQ Application Server.

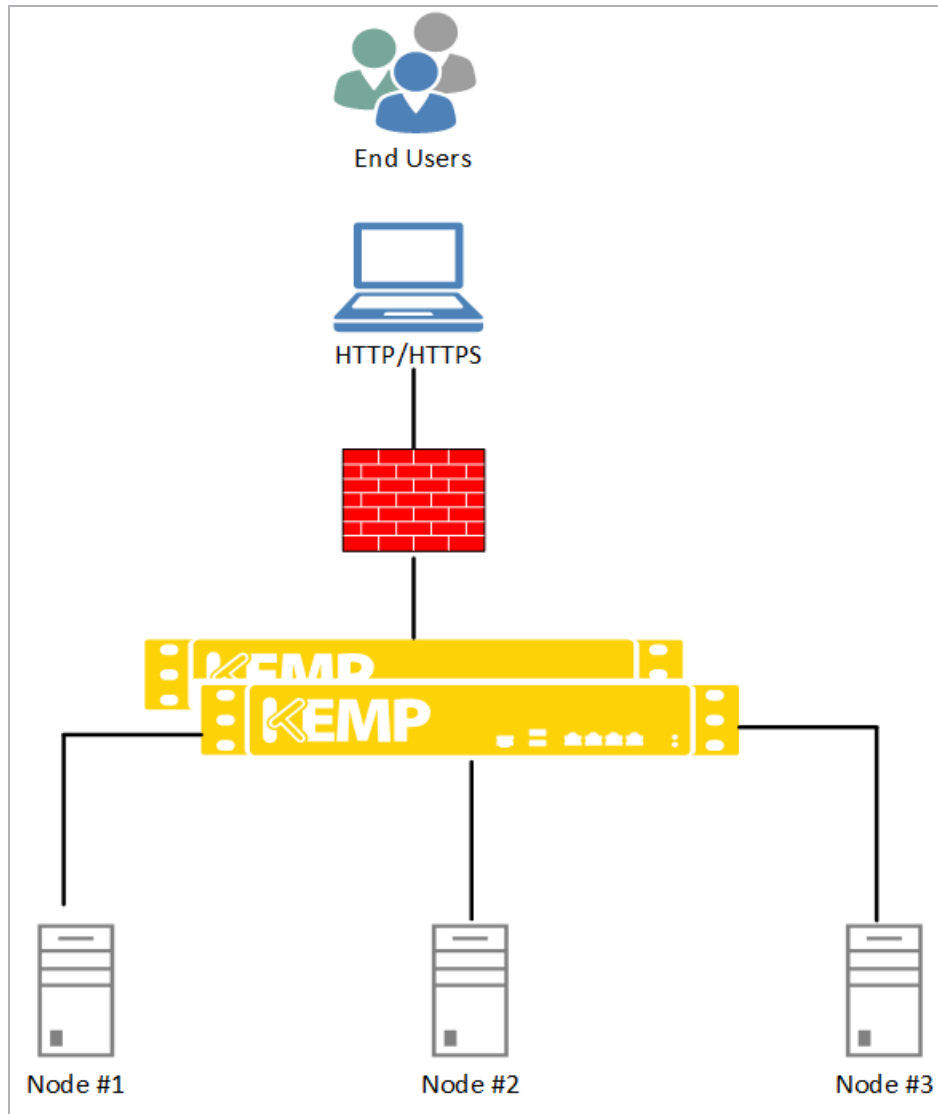
# 2 Template

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. 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](#).

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

# 3 Architecture



# 4 Service Configuration

## 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.

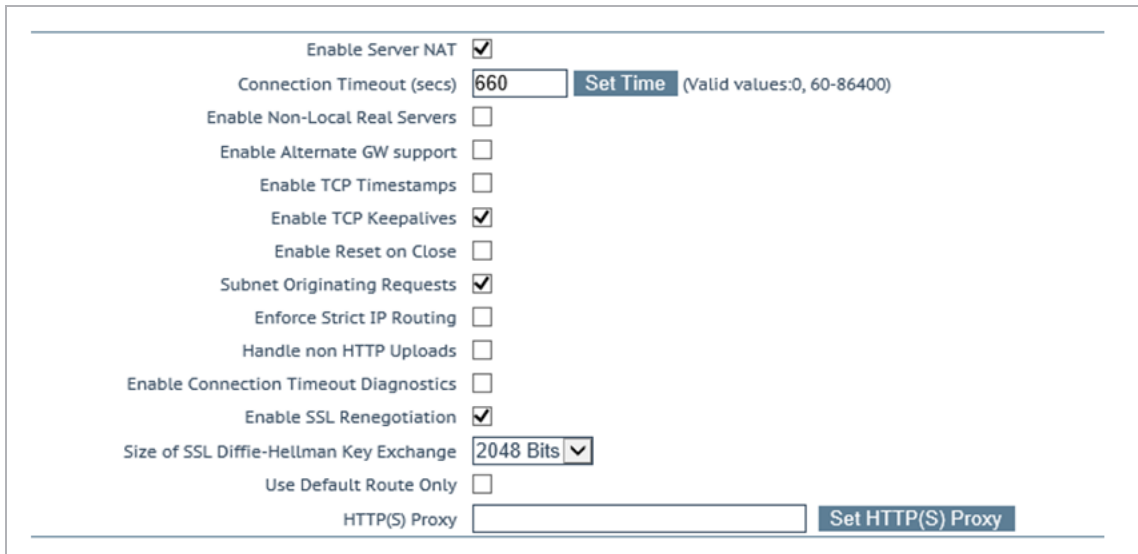
In a two-armed setup where the Virtual Service is on network/subnet A, for example, and the Real Servers are on network B, **Subnet Originating Requests** should be enabled on LoadMasters with firmware version 7.1-16 and above.

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 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 Web User Interface (WUI), go to **System Configuration > Miscellaneous Options > Network Options**.



The screenshot shows the 'Network Options' configuration page in the LoadMaster WUI. The page contains a list of settings with checkboxes and input fields. The 'Subnet Originating Requests' option is checked. The 'Connection Timeout (secs)' is set to 660. The 'Size of SSL Diffie-Hellman Key Exchange' is set to 2048 Bits. The 'HTTP(S) Proxy' field is empty.

Enable Server NAT	<input checked="" type="checkbox"/>
Connection Timeout (secs)	660 <span>Set Time (Valid values:0, 60-86400)</span>
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	2048 Bits
Use Default Route Only	<input type="checkbox"/>
HTTP(S) Proxy	<input type="text"/> <span>Set HTTP(S) Proxy</span>

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

## 4.2 Configuring the RabbitMQ Virtual Service

To configure the Virtual Service on the LoadMaster, follow the steps below in the WUI:

1. In the main menu, select **Virtual Services > Add New**.

Please Specify the Parameters for the Virtual Service.

Virtual Address

10.154.11.142

Port

5672

Service Name (Optional)

Rabbit MQ

Use Template

Select a Template

Protocol

tcp

Cancel

Add this Virtual Service

2. Enter a valid **Virtual Address**.
3. Type **5672** as the **Port**.
4. Type a recognizable **Service Name** such as **RabbitMQ**.
5. Click **Add this Virtual Service**.
6. Configure the settings as recommended in the following table:

Section	Option	Value	Comment
<b>Standard Options</b>	Force L7	Disabled	
	Persistence Mode	Source IP Address	
	Timeout	10 minutes	
	Scheduling Method	least connection	
<b>Real Servers</b>	Checked Port	5672	Click <b>Set Check Port</b>

7. Add the Real Servers:
  - a) Expand the **Real Servers** section.
  - b) Click **Add New**.
  - c) Enter the address of the relevant Real Server.



- d) Complete the other fields as required.
- e) Click **Add this Real Server** then click **OK** to the pop-up message.
- f) Repeat the steps above to add more Real Servers as needed, based on your 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.