



Greenway PrimeSuite

Deployment Guide

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1 Introduction

Greenway PrimeSUITE is a fully integrated Practice Management (PM) and Electronic Health Record (EHR) software package for hospitals and private practices. PrimeSUITE gives access to data from a single interface. This allows physicians and support staff to complete accurate documentation, schedule appointments, monitor revenue cycles, and generate reports all from one dashboard.

PrimeSUITE makes information available in real-time throughout the practice, giving staff on-demand access to the data they need. The Kemp LoadMaster delivers an exceptional, cost-effective and easy to use solution which, by employing Load Balancing, balances requests across PrimeSUITE servers.

When deployed as a pair, two LoadMasters give the security of High Availability (HA). HA allows two physical or virtual machines to become one logical device. Only one of these units is ever handling traffic at any particular moment. One unit is active and the other is a hot standby (passive). This provides redundancy and resiliency, meaning if one LoadMaster goes down for any reason, the hot standby can become active, therefore avoiding any downtime. For more information on HA please refer to: [High Availability \(HA\), Feature Description](#).

1.1 Document Purpose

This document is intended to provide guidance on how to deploy Greenway PrimeSUITE with a Kemp LoadMaster. 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 used by anyone deploying Greenway PrimeSUITE with a Kemp LoadMaster.

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. 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](#).

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

3 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.

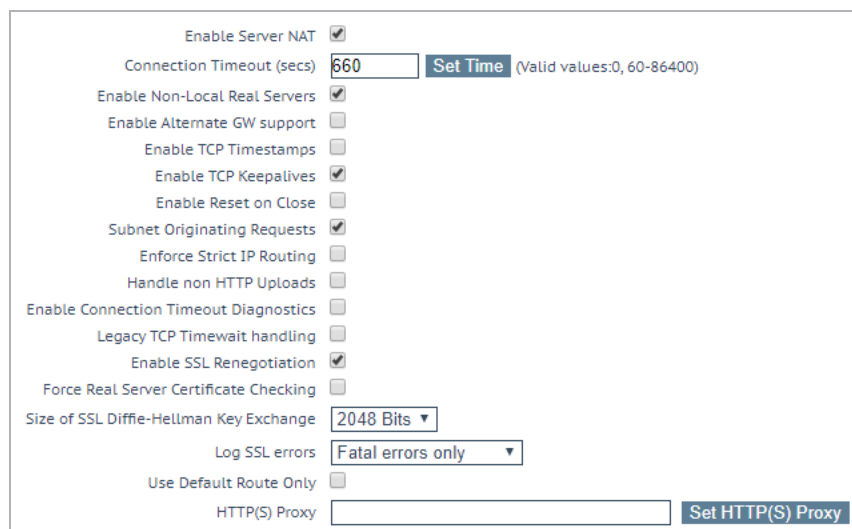
In a two-armed setup where the Virtual Service is on network/subnet A, for example, and the Real Servers are on network B, **Subnet Originating Requests** should be enabled on LoadMasters with firmware version 7.1-16 and above.

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, many of which are checkboxes. The 'Subnet Originating Requests' checkbox is checked. Other settings include 'Enable Server NAT' (checked), 'Connection Timeout (secs)' (660), 'Enable Non-Local Real Servers' (checked), 'Enable Alternate GW support' (unchecked), 'Enable TCP Timestamps' (unchecked), 'Enable TCP Keepalives' (checked), 'Enable Reset on Close' (unchecked), 'Enforce Strict IP Routing' (unchecked), 'Handle non HTTP Uploads' (unchecked), 'Enable Connection Timeout Diagnostics' (unchecked), 'Legacy TCP Timewait handling' (unchecked), 'Enable SSL Renegotiation' (checked), 'Force Real Server Certificate Checking' (unchecked), 'Size of SSL Diffie-Hellman Key Exchange' (2048 Bits), 'Log SSL errors' (Fatal errors only), 'Use Default Route Only' (unchecked), and 'HTTP(S) Proxy' (empty). There are 'Set Time' and 'Set HTTP(S) Proxy' buttons.

Enable Server NAT	<input checked="" type="checkbox"/>
Connection Timeout (secs)	660 Set Time (Valid values:0, 60-86400)
Enable Non-Local Real Servers	<input checked="" 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"/>
Legacy TCP Timewait handling	<input type="checkbox"/>
Enable SSL Renegotiation	<input checked="" type="checkbox"/>
Force Real Server Certificate Checking	<input type="checkbox"/>
Size of SSL Diffie-Hellman Key Exchange	2048 Bits ▼
Log SSL errors	Fatal errors only ▼
Use Default Route Only	<input type="checkbox"/>
HTTP(S) Proxy	<input type="text"/> Set HTTP(S) Proxy

3 Enable Subnet Originating Requests Globally

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

4 Configure the Greenway PrimeSUITE Virtual Services

The following are the steps involved and the values required to set up the Greenway PrimeSUITE 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	<input type="text" value="10.154.11.52"/>
Port	<input type="text" value="80"/>
Service Name (Optional)	<input type="text" value="Greenway PrimeSuite"/>
Use Template	<input type="text" value="Select a Template"/>
Protocol	<input type="text" value="tcp"/>

2. Enter a valid IP address in the **Virtual Address** text box.
3. Enter **80** in the **Port** text box.
4. Enter a recognizable **Service Name**, for example **Greenway PrimeSuite**.
5. Ensure **tcp** is selected as the **Protocol**.
6. Click **Add this Virtual Service**.
7. Configure the settings as recommended in the following table:

Section	Option	Value
Standard Options	Transparency	Disabled
	Persistence Mode	Server Cookie The persistence mode in this deployment is set to two hours but can be set lower. It should be

4 Configure the Greenway PrimeSUITE Virtual Services

			noted, however, that a longer persistence timeout can lead to ‘clumping’ (unbalanced load) while shorter timeouts typically result in more balanced traffic. The optimal persistence value is slightly longer than the servers' session timeout.
	Timeout	2 Hours	
	Cookie name	GreenwaySession	
	Scheduling Method	round robin	
	Idle Connection Timeout	7200	Click the Set Idle Timeout button. The Idle Connection Timeout is also configurable in PrimeSUITE. The value in PrimeSUITE should match the value set here.
Advanced Properties	Add HTTP Headers	Legacy Operation (X-ClientSide)	
Real Servers	Real Server Check Parameters	HTTP Protocol	
	Checked Port	80	
	HTTP Method	HEAD	

8. Add the Real Servers:

- a) Click the **Add New** button.
- b) Enter the **Real Server Address**.

This is the address of the backend server.

- c) Enter **80** as the **Port**.

The Real Server **Port** should match the Virtual Service **Port**.

The **Forwarding method** and **Weight** values are set by default. These can be changed by an administrator.

- d) Click **Add this Real Server**. Click **OK** to the pop-up message.
- e) 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.

High Availability (HA), Feature Description

Last Updated Date

This document was last updated on 27 July 2023.