

Port Following

Feature Description

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Table of Contents

1 Introduction **4**

1.1 Document Purpose 4

1.2 Intended Audience 4

2 Port Following **5**

2.1 Configuring Port Following 6

2.1.1 Create the Virtual Service for HTTP 6

2.1.2 Create the Virtual Service for HTTPS/SSL Offloading 9

2.1.3 Configure Port Following for the HTTPS Virtual Service 12

2.1.4 Configure Port Following for the HTTP Virtual Service 13

References **15**

Last Updated Date **16**

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1 Introduction

Kemp leads the industry in driving the price/performance value proposition for application delivery and load balancing to levels that our customers can afford. Our products' versatile and powerful architecture provide the highest value, while enabling our customers to optimize their businesses that rely on Internet-based infrastructure to conduct business with their customers, employees and partners.

Kemp products optimize web and application infrastructure as defined by high-availability, high-performance, flexible scalability, security and ease of management. They maximize the total cost-of-ownership for web infrastructure, while enabling flexible and comprehensive deployment options.

1.1 Document Purpose

This document describes various aspects of the port following feature of the Kemp LoadMaster. It describes in detail how to configure the port following feature using the LoadMaster Web User Interface (WUI).

For descriptions on each of the LoadMaster WUI fields, please refer to the Web User Interface (WUI), Configuration Guide.

1.2 Intended Audience

This document is intended to help anyone who wishes to learn about or implement the port following feature within the Kemp LoadMaster.

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2 Port Following

Port following is set when two services need to share persistence records. Typically, this is done for HTTP and HTTPS services so users maintain a server session, regardless of whether they connect securely or not.

If the Real Server for one of the Virtual Services fails, the persistence records for the same Real Server on the other Virtual Service will be cleared.

Port following has several requirements:

- The Virtual Services must have the same set of Real Servers
- The Virtual Service must be using the same persistence options

After meeting these conditions, in the Virtual Service modify screen there will be an option under **Advanced Properties** for **Port Following**. Ensure to set this on both Virtual Services to ensure that port following is done bi-directionally. Port following must be set up bi-directionally to ensure that, regardless of whether the client connects using HTTP or HTTPS, the persistence and session is saved.

Prior to LoadMaster firmware version 7.2.51, it was not possible to configure port following for Virtual Services where the **Service Type** was set to **Generic**. This is possible in version 7.2.51 and above.

Here is an example scenario where port following may be used:

- When using “shopping cart” like services where a user selects items and adds them to a list, any persistence method can be used.
- When the user decides to pay for the items, this is normally performed using a secure SSL (HTTPS) service.
- When port following is turned on, the Real Server where the “shopping cart” connection is active will be selected for the SSL session.
- This selection will only occur when a connection is still open from the same client (as determined by the source IP address), and if the SSL service has the same IP address as the “shopping cart” service.

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- For example, if a connection is made to the HTTP service of www.somewebsite.com, and then a new SSL connection is made to the same address, then the SSL session will be directed to the same Real Server as the original HTTP service.

2.1 Configuring Port Following

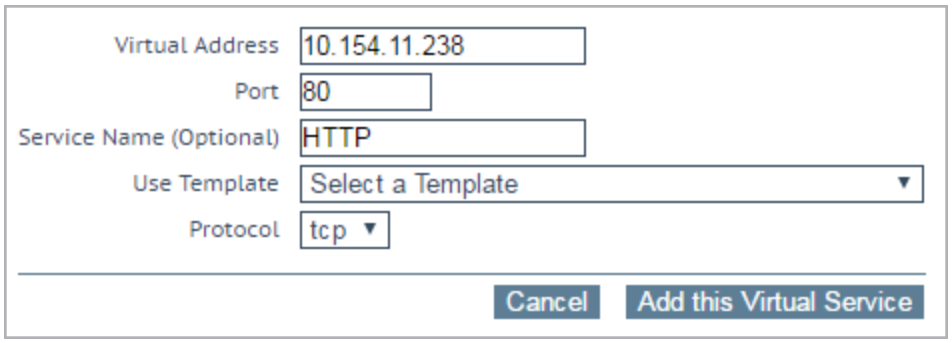
> Port following is not available on SubVSs.

Follow the steps in the sections below to create the Virtual Services and configure port following. It does not matter what order the Virtual Services are created in – as long as they have the same set of Real Servers and the same Layer 7 persistence mode – you should be able to enable port following.

2.1.1 Create the Virtual Service for HTTP

To create an HTTP Virtual Service, follow the steps below:

1. In the main menu of the LoadMaster WUI, go to **Virtual Services > Add New**.



2. Enter a valid IP address in the **Virtual Address** text box.
3. Enter **80** in the **Port** text box.

> It is possible to use port following with Virtual Services using wildcard ports.

4. Enter a recognizable **Service Name**.
5. Click the **Add this Virtual Service** button.
6. Expand the **Standard Options** section.

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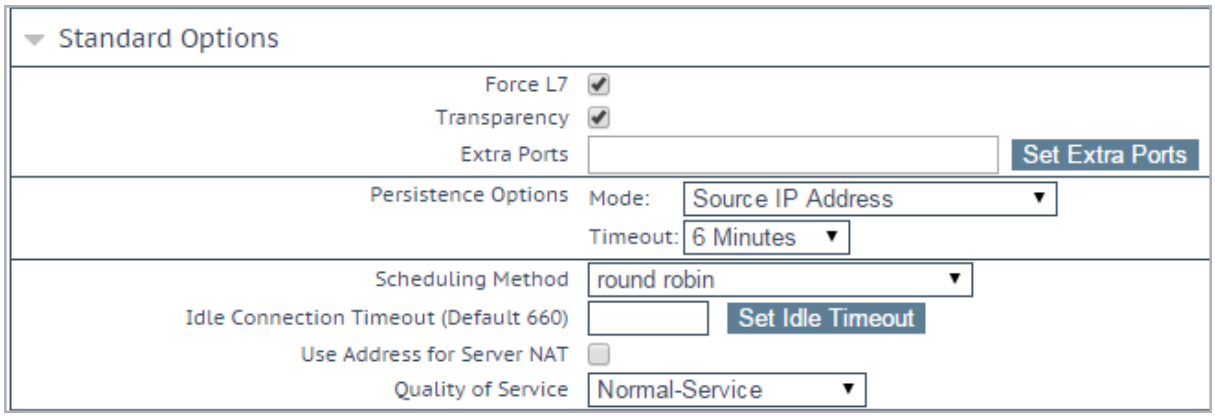
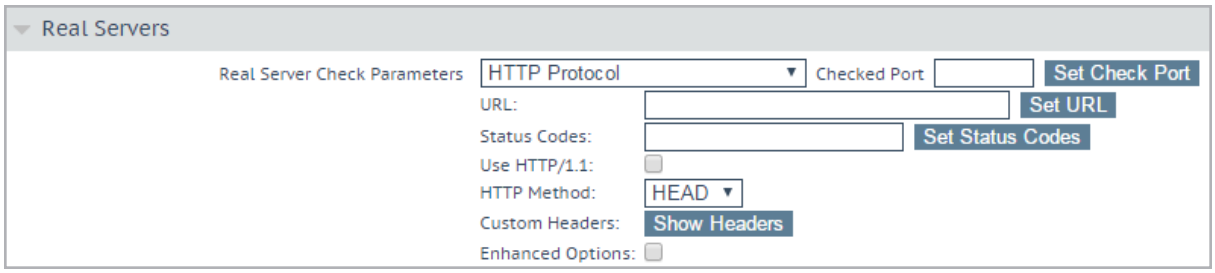


7. Select an L7 persistence mode. This is the persistence mode that will be used for any Real Servers which are added to this Virtual Service.

8. Expand the **Real Servers** section.



9. Click the **Add New** button.

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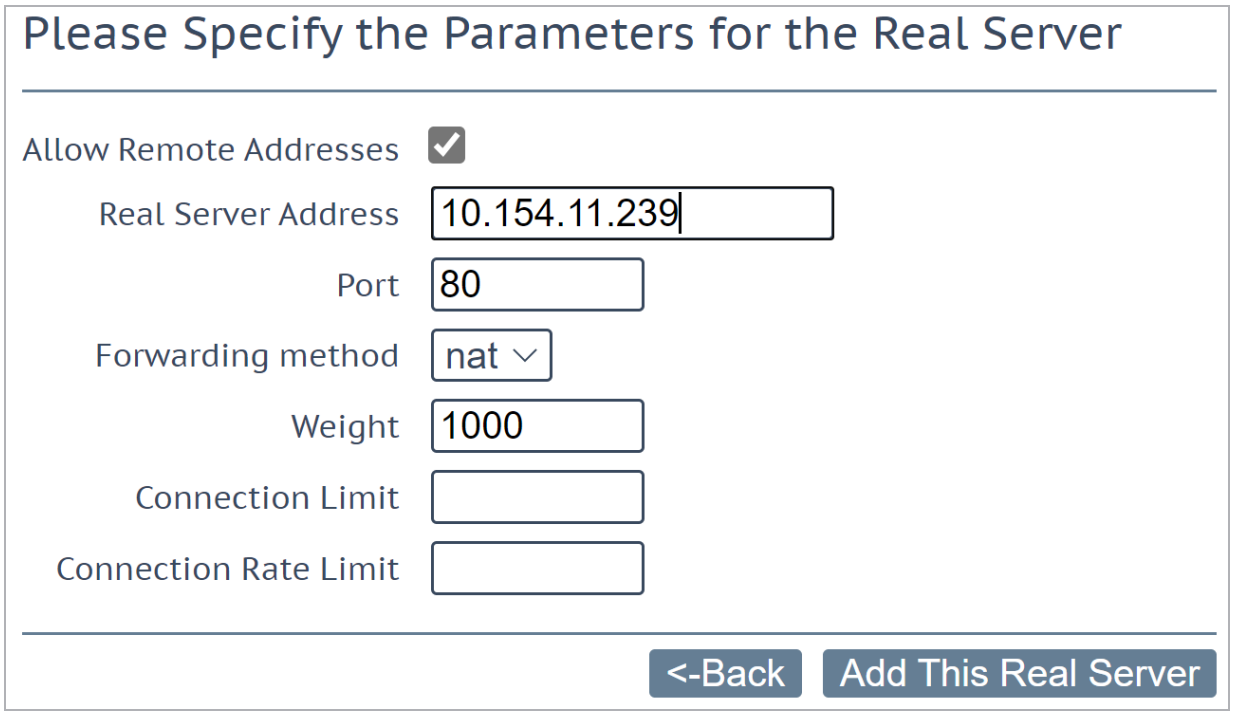
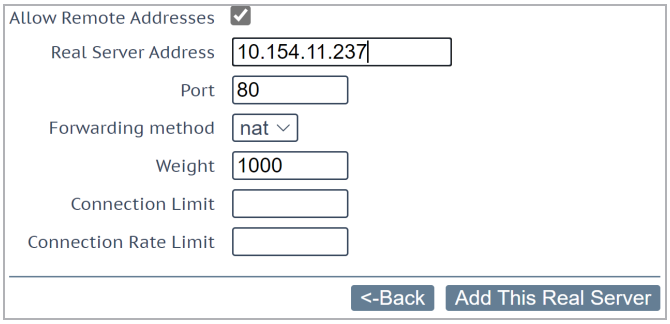


10. Enter the relevant address in the **Real Server Address** text box.
11. Click **Add This Real Server**.
12. Click **OK**.



13. For the second Real Server, enter the address in the **Real Server Address** text box.
14. Click **Add This Real Server**.
15. Click **View/Modify Services** in the main menu.
16. Check that the Virtual Service has the correct **Virtual IP Address**, port number and **Real Servers** and that the **Status** is **Up**.

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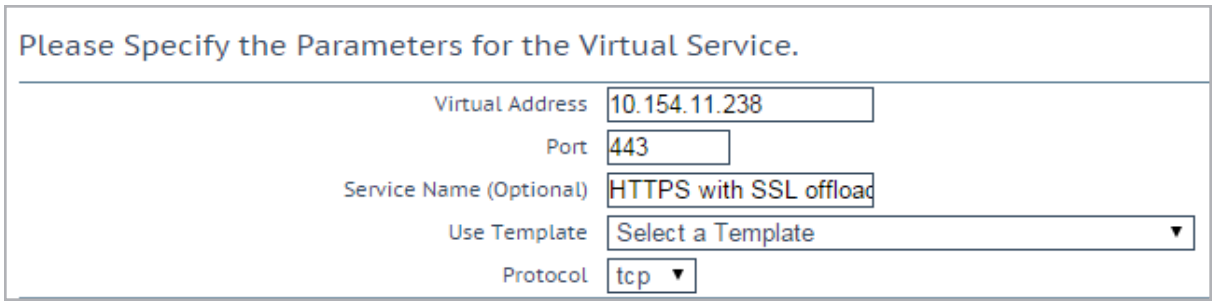
2.1.2 Create the Virtual Service for HTTPS/SSL Offloading

To create a HTTPS Virtual Service with SSL offloading, follow the steps below:

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



2. Enter the IP address in the **Virtual Address** text box.
3. Enter a recognizable **Service Name**.
4. Enter **443** as the **Port**.

> It is possible to use port following with Virtual Services using wildcard ports.

5. Click the **Add this Virtual Service** button.
6. Expand the **SSL Properties** section.

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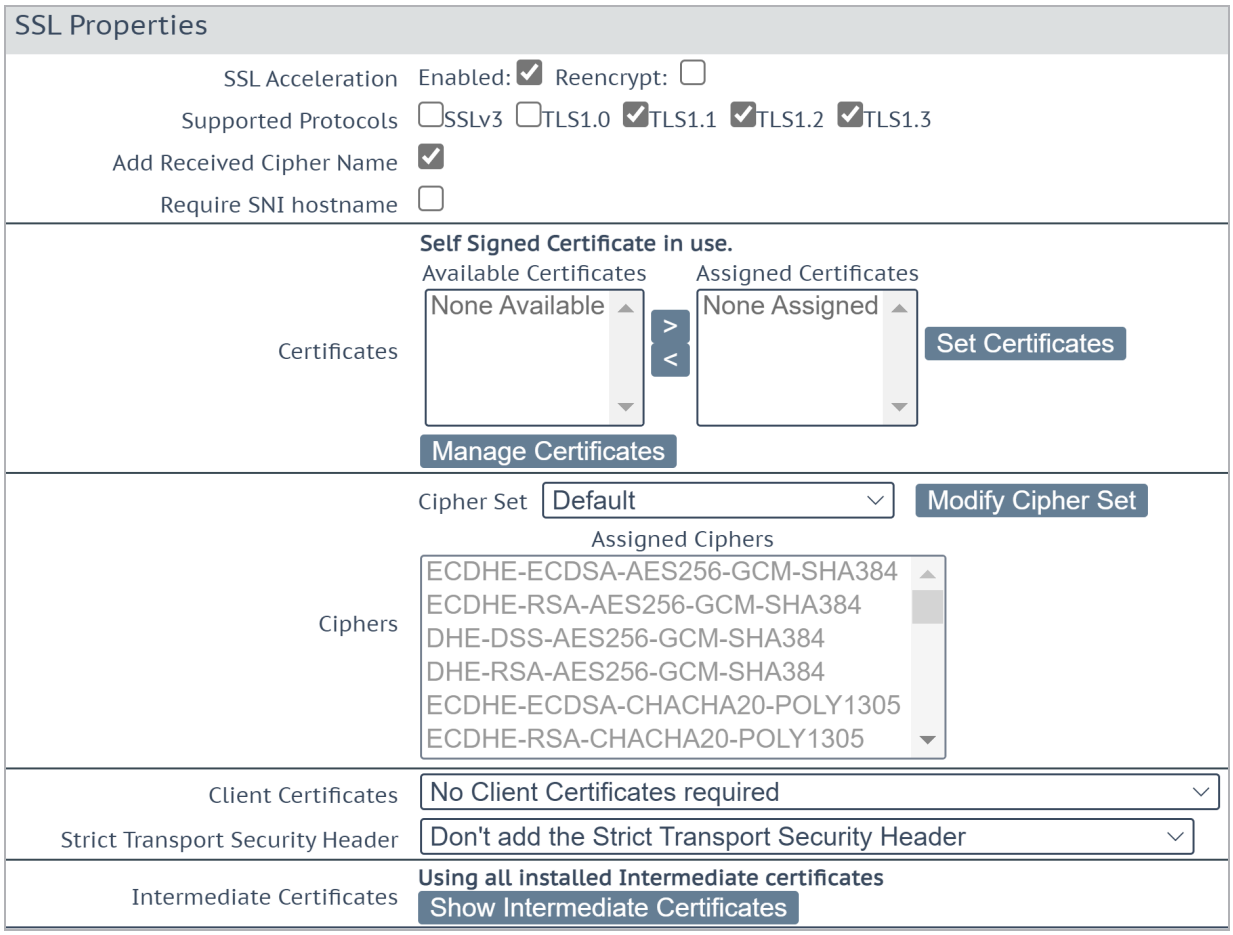
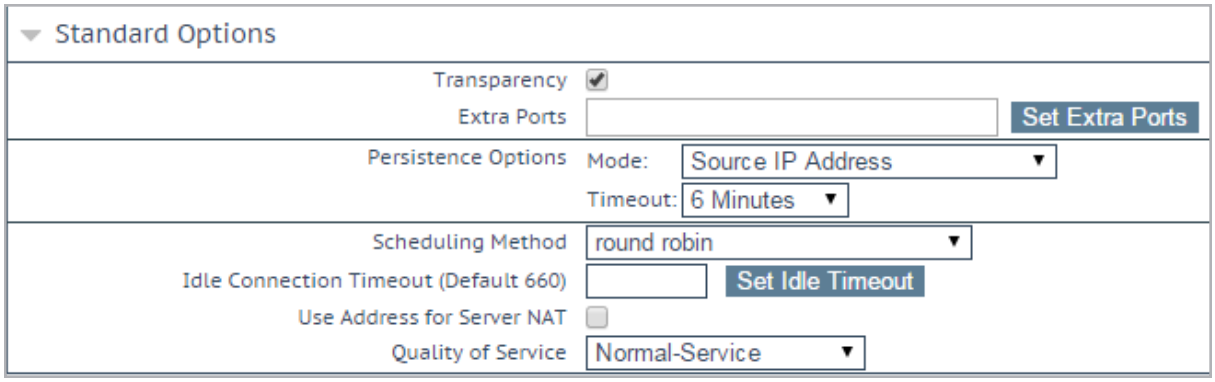


7. Select **Enable**.
8. Click **OK**.
9. Expand the **Standard Options** section.



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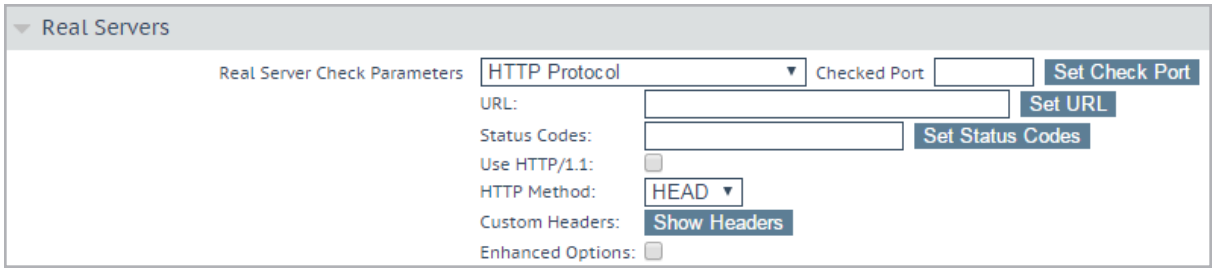
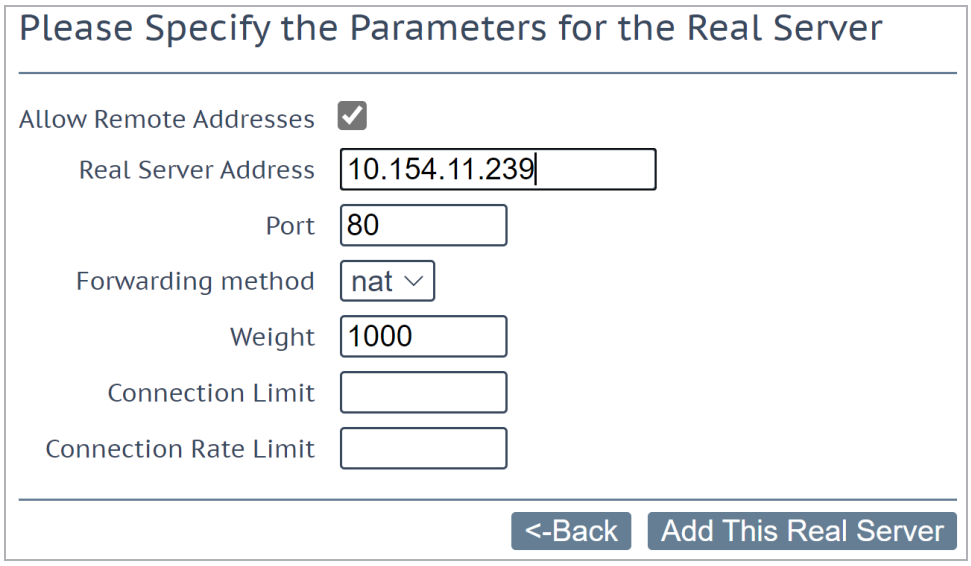
10. Select the same L7 persistence mode that was selected in the HTTP Virtual Service. This is the persistence mode that will be used for any Real Servers which are added to this Virtual Service.

11. Expand the **Real Servers** section.



12. Click **Add New**.



13. Enter the relevant address in the **Real Server Address** text box.

14. Enter **80** as the **Port**.

15. Click **Add This Real Server**.

16. Click **OK**.

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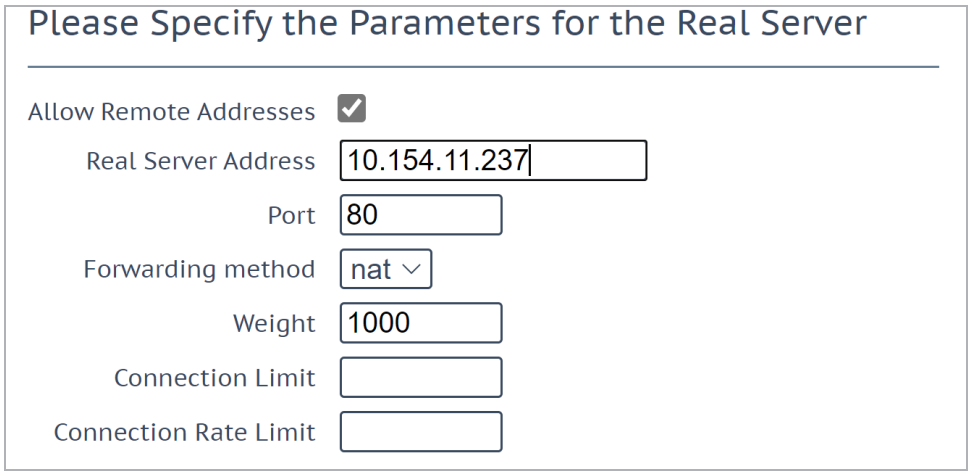

17. For the second Real Server, enter the address in the **Real Server Address** text box.
18. Enter **80** as the **Port**.
19. Click **Add This Real Server**.
20. Click **OK**.
21. Click **Back**.
22. Select View/Modify Services under Virtual Services in the main menu.
23. Check that the Virtual Service has the correct **Virtual IP Address**, port number and **Real Servers** and that the **Status** is **Up**.

2.1.3 Configure Port Following for the HTTPS Virtual Service

To configure port following for the HTTPS Virtual Service, follow the steps below:

1. In the main menu, go to **Virtual Services > View/Modify Services**.
2. Click the **Modify** button for the Virtual Service with port **443**.
3. Expand the **Advanced Properties** section.

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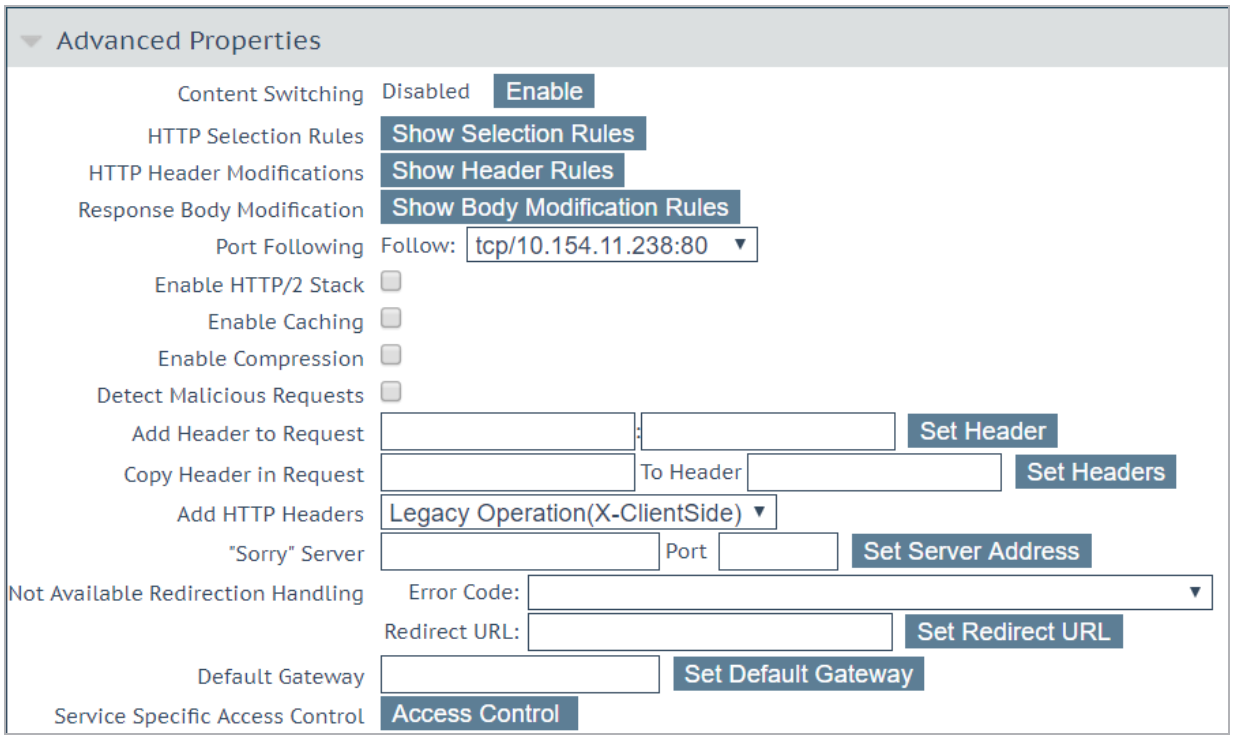

4. Select the port 80 Virtual Service from the **Port Following** drop-down list.

> If the **Port Following** drop-down list is not visible – remember that both Virtual Services must have the same set of Real Servers and both Virtual Services should have a Layer 7 persistence method enabled.

> To turn off port following, change the **Follow** drop-down list to **No VIP Selected**.

5. Wait 10 seconds, or uncheck and check the **Activate or Deactivate Service** checkbox in the **Basic Properties** section for immediate activation.

2.1.4 Configure Port Following for the HTTP Virtual Service

To configure port following for the HTTPS Virtual Service, follow the steps below:

1. In the main menu, go to **Virtual Services > View/Modify Services**.
2. Click the **Modify** button for the Virtual Service with port **80**.
3. Expand the **Advanced Properties** section.

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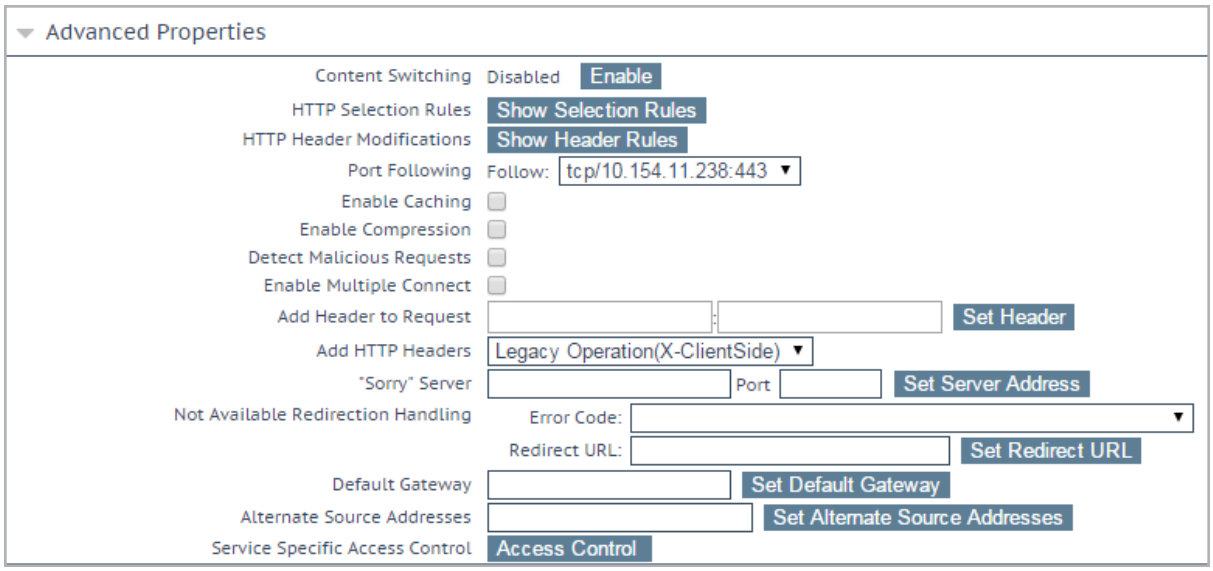

4. Select the port 443 Virtual Service from the **Port Following** drop-down list.

> If the **Port Following** drop-down list is not visible – remember that both Virtual Services must have the same set of Real Servers and both Virtual Services should have a Layer 7 persistence method enabled.

> To turn off port following, change the **Follow** drop-down list to **No VIP Selected**.

5. Wait 10 seconds, or uncheck and check the **Activate or Deactivate Service** check box in the **Basic Properties** section for immediate activation.

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References

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

Web User Interface (WUI), Configuration Guide

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