

Aspera Server

Deployment Guide

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1 Introduction

The Aspera Server enables a large number of users to exchange files over a Wide Area Network (WAN). Utilising FASP© technology at its core, the Aspera Server delivers unmatched performance and includes all the exceptional transfer and user management capabilities of the industry standard Enterprise Server and Connect Server.

The Kemp LoadMaster is able to load balance the Aspera Server workload. The LoadMaster offers advanced Layer 4 and Layer 7 server load balancing, SSL Acceleration and a multitude of other advanced Application Delivery and Optimization (ADC) features. The LoadMaster intelligently and efficiently distributes user traffic among the application servers so that users get the best experience possible.

1.1 Document Purpose

This document provides guidance on how to deploy Aspera Server 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 for use by anyone deploying Aspera Server with a Kemp LoadMaster.

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2 Aspera Server Template

Kemp has developed a template containing our recommended settings for Aspera Server. This template can be installed on the LoadMaster and used when creating Virtual Services. Using a template automatically populates the settings in the Virtual Services. This is quicker and easier than manually configuring each Virtual Service. If needed, changes can be made to any of the Virtual Service settings after using the template.

Download released templates from the following page: LoadMaster Templates.

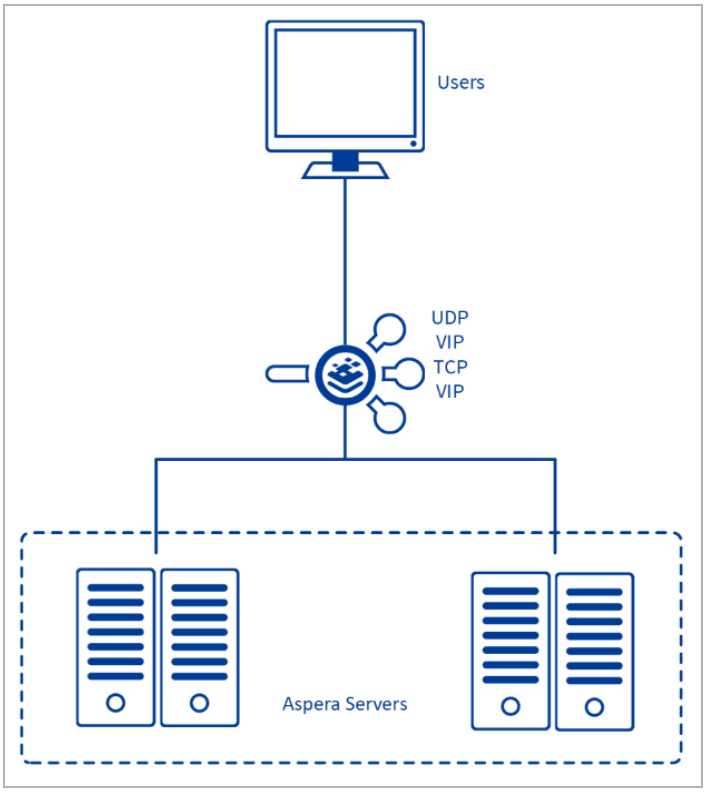
For more information and steps on how to import and use templates, refer to the Virtual Services and Templates, Feature Description.

For steps on how to manually add and configure each of the Virtual Services, refer to the **Configure Aspera Server Virtual Services** section of this document.

> The Port Following settings are not configured by the template. Refer to the **Port Following** section on how to configure Port Following.

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3 Architecture



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4 Configure Aspera Server Virtual Services

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 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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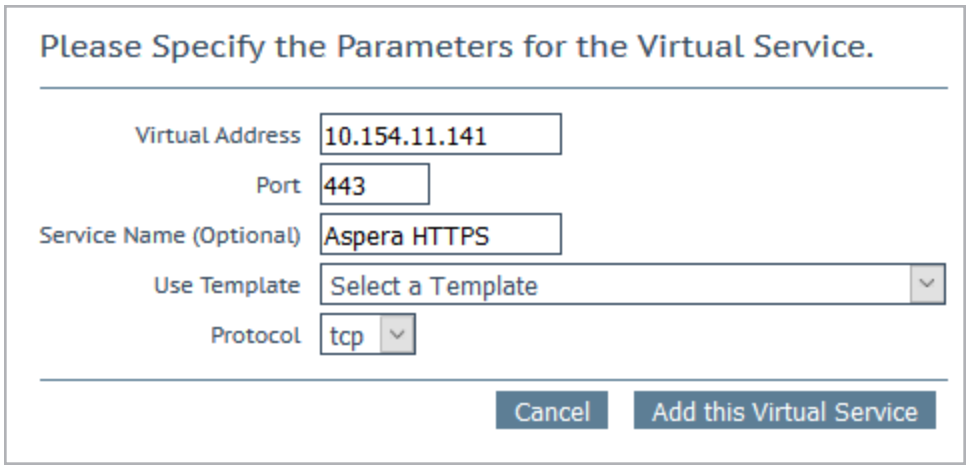
4.2 Create the Aspera Virtual Services

The following sections describe the recommended settings for the Aspera Virtual Services.

4.2.1 Aspera HTTPS Virtual Service

The following are the steps involved and the values recommended to configure the Aspera HTTPS Virtual Service:

1. In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.



2. Type a valid IP address in the **Virtual Address** text box.
3. Type **443** in the **Port** text box.
4. Enter a recognizable **Service Name**, for example **Aspera HTTPS Server**.
5. Ensure **tcp** is selected as the **Protocol**.
6. Click **Add this Virtual Service**.
7. Enter the details shown in the following table.

Section	Option	Value	Comment
Standard Options	Persistence Mode	Source IP Address	
	Timeout	6 Minutes	
	Scheduling	least	

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Section	Option	Value	Comment
	Method	connection	
Advanced Properties	Add a Port 80 Redirector VS	https://%h%s	Click **Add HTTP Redirector**. This automatically creates a redirect on port 80.

8. Add the Real Servers:

   a) Expand the **Real Servers** section.

   b) Click **Add New**.

   c) Type the address of the **Aspera HTTPS Server**.

   d) Type **443** as the **Port**.

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

   > The **Forwarding method** and **Weight** values are set by default. An administrator can change these.

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

   f) Repeat the steps above to add more Real Servers as needed, based on the environment.

Create an Aspera HTTPS Virtual Service Offloaded HTTP Redirect Virtual Service

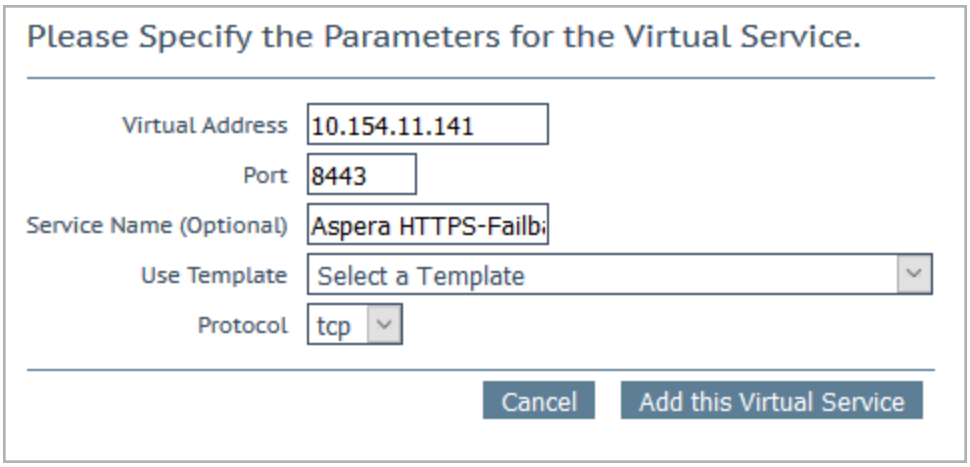
Clicking the **Add HTTP Redirector** button automatically creates a port 80 redirect Virtual Service. This is optional, but the purpose of this Virtual Service is to redirect any clients who have connected using HTTP to the HTTPS Virtual Service. Kemp also recommends changing the **Real Server Check Method** and **Persistence Mode** to **None**.

4.2.2 Aspera HTTPS-Failback Virtual Service

The following are the steps involved and the values recommended to configure the Aspera HTTPS-Failback Virtual Service:

1. In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.

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2. Type a valid IP address in the **Virtual Address** text box.
3. Type **8443** in the **Port** text box.
4. Enter a recognizable **Service Name**, for example **Aspera HTTPS-Failback**.
5. Ensure **tcp** is selected as the **Protocol**.
6. Click **Add this Virtual Service**.
7. Enter the details shown in the following table:

Section	Option	Value
Standard Options	Transparency	Enabled
	Persistence Mode	Source IP Address
	Timeout	6 Minutes
	Scheduling Method	least connection
Real Servers	Checked Port	8443

8. Add the Real Servers:
   a) Expand the **Real Servers** section.
   b) Click **Add New**.
   c) Type the address of the Aspera HTTPS-Failback Server.
   d) Type **8443** as the **Port**.

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

The **Forwarding method** and **Weight** values are set by default. An administrator can change these.

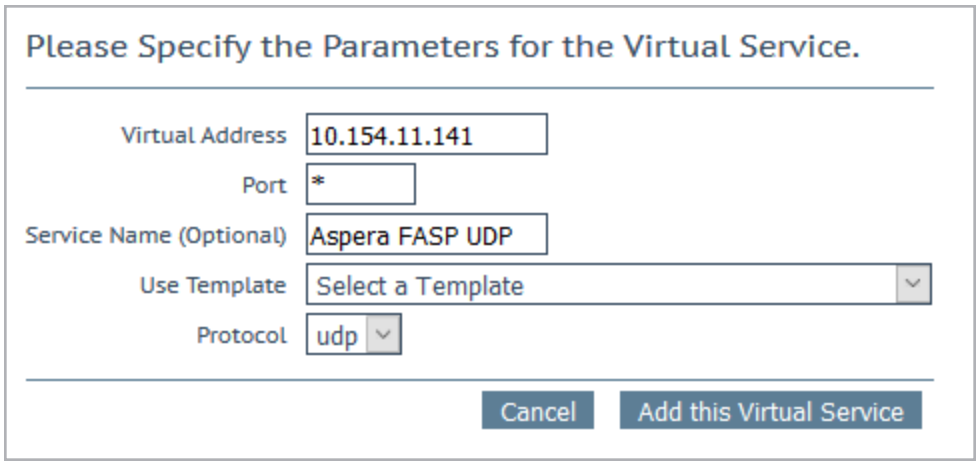
e) Click **Add this Real Server**. Click **OK** to the pop-up message.

f) Repeat the steps above to add more Real Servers as needed, based on the environment.

4.2.3 Aspera FASP UDP Virtual Service

The following are the steps involved and the values recommended to configure the Aspera FASP UDP Service:

1. In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.



2. Type a valid IP address in the **Virtual Address** text box.
3. Type ***** in the **Port** text box.
4. Enter a recognizable **Service Name**, for example **Aspera FASP UDP**.
5. Ensure **udp** is selected as the **Protocol**.
6. Click **Add this Virtual Service**.
7. Enter the details shown in the following table.

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Section	Option	Value
Standard Options	Force L4	Disabled
	Persistence Mode	Source IP Address
	Timeout	6 Minutes
	Scheduling Method	least connection

8. Add the Real Servers:

   a) Expand the **Real Servers** section.

   b) Click **Add New**.

   c) Type the address of the **Aspera FASBUDP Server**.

   d) Type ***** as the **Port**.

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

   > The **Forwarding method** and **Weight** values are set by default. An administrator can change these.

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

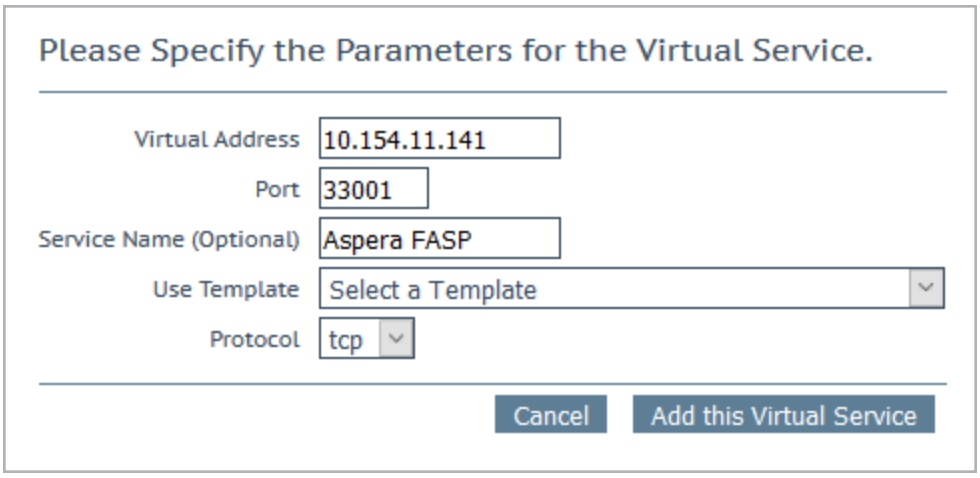
   f) Repeat the steps above to add more Real Servers as needed, based on the environment.

4.2.4 Aspera FASP Virtual Service

The following are the steps involved and the values recommended to configure the Aspera FASP Virtual Service:

1. In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.

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2. Type a valid IP address in the **Virtual Address** text box.
3. Type **33001** in the **Port** text box.
4. Enter a recognizable **Service Name**, for example **Aspera FASP**.
5. Ensure **tcp** is selected as the **Protocol**.
6. Click **Add this Virtual Service**.
7. Enter the details shown in the following table.

Section	Option	Value
Basic Properties	Service Type	HTTP/HTTPS
Standard Options	Persistence Mode	Source IP Address
	Timeout	6 Minutes
	Scheduling Method	least connection
Advanced Properties	Port Following	No VIP Selected
	Add HTTP Headers	Legacy Operation(X-ClientSide)
Real Servers	Checked Port	33001

8. Add the Real Servers:
   a) Expand the **Real Servers** section.
   b) Click **Add New**.

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c) Type the address of the **Aspera FASP Server**.

d) Type **33001** as the **Port**.

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

> The **Forwarding method** and **Weight** values are set by default. An administrator can change these.

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

f) Repeat the steps above to add more Real Servers as needed, based on the environment.

4.3 Port Following

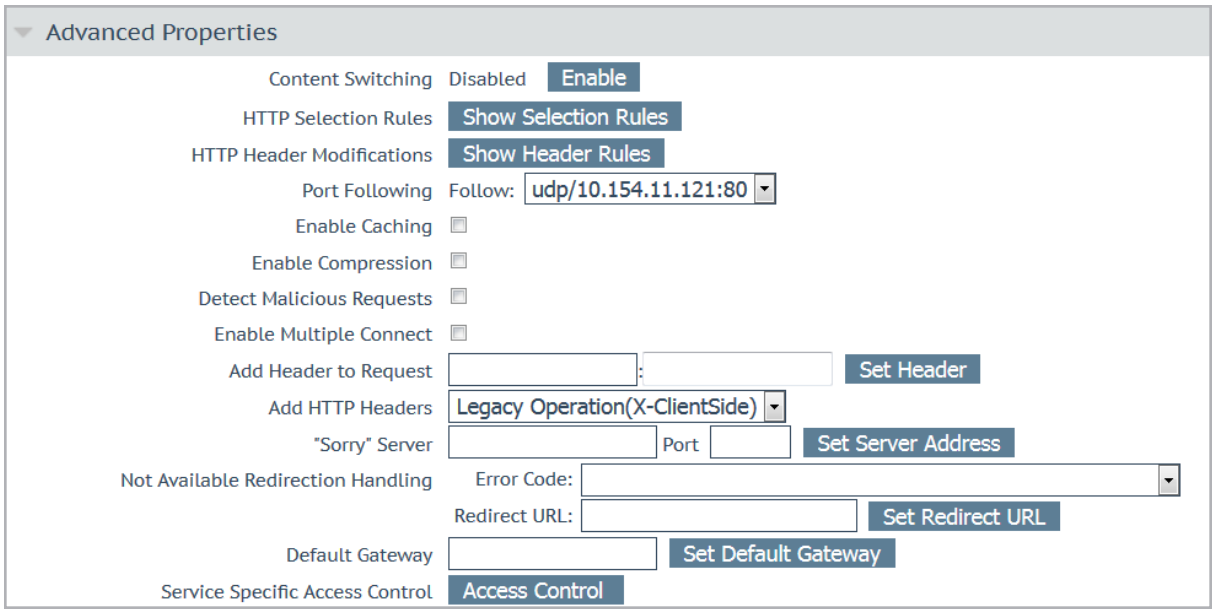
Port following must be set on both Virtual Services as follows and is explained in detail in the following sections.

4.3.1 Configure Port Following for the Aspera TCP Virtual Service

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

1. In the main menu, go to **Virtual Services > View/Modify Services**.
2. Click **Modify** for the Aspera TCP Virtual Service which you created in the **Create the Aspera Virtual Services** section.
3. Expand the **Advanced Properties** section.

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4. Select the Aspera Server UDP Virtual Service from the **Port Following** drop-down list.

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

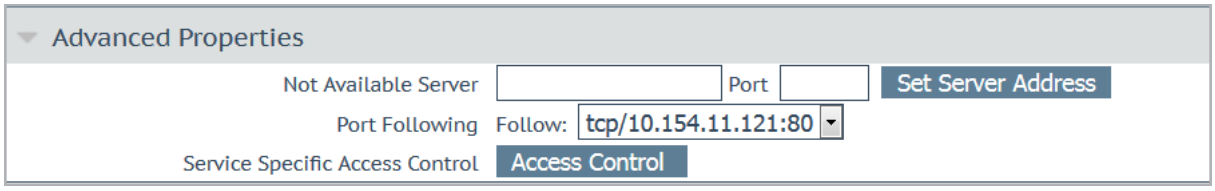
4.3.2 Configure Port Following for the Aspera TCP Virtual Service

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

1. In the main menu, go to **Virtual Services > View/Modify Services**.

2. Click **Modify** for the Aspera Server TCP Virtual Service which you created in the **Aspera HTTPS-Failback Virtual Service** section.

3. Expand the **Advanced Properties** section.



4. Select the Aspera TCP Virtual Service from the **Port Following** drop-down list.

5. Wait 10 seconds, or uncheck and check the **Activate or Deactivate Service** checkbox 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.

Virtual Services and Templates, Feature Description

High Availability (HA), Feature Description

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