

## Managing Load Balancer Service on an Edge Gateway

In this document you will find the manual for creating a Pool Server and creating a Virtual Server.

Version 1.0

<b>1.</b>	<b>Add a Pool Server to an vCloud Networking&amp;Security Edge .....</b>	<b>2</b>
	<i>Procedure</i>	<i>3</i>
<b>2.</b>	<b>Add a Virtual Server to an vCloud Networking&amp;Security Edge .....</b>	<b>8</b>
	<i>Procedure</i>	<i>8</i>



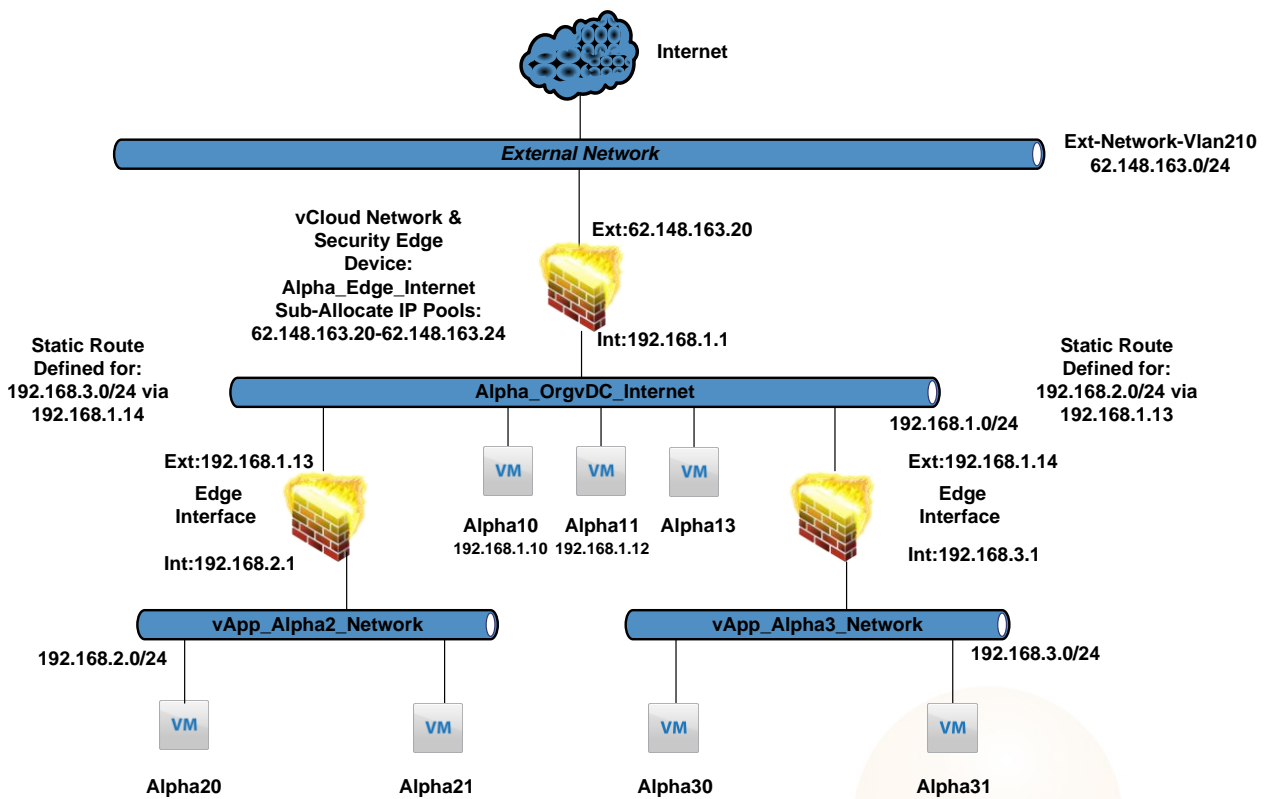
## 1. Add a Pool Server to an vCloud Networking&Security Edge

Edge gateways provide load balancing for TCP, HTTP, and HTTPS traffic.

You map an external, or public, IP address to a set of internal servers for load balancing. The load balancer accepts TCP, HTTP, or HTTPS requests on the external IP address and decides which internal server to use. Port 809 is the default listening port for TCP, port 80 is the default port for HTTP and port 443 is the default port For HTTPS.

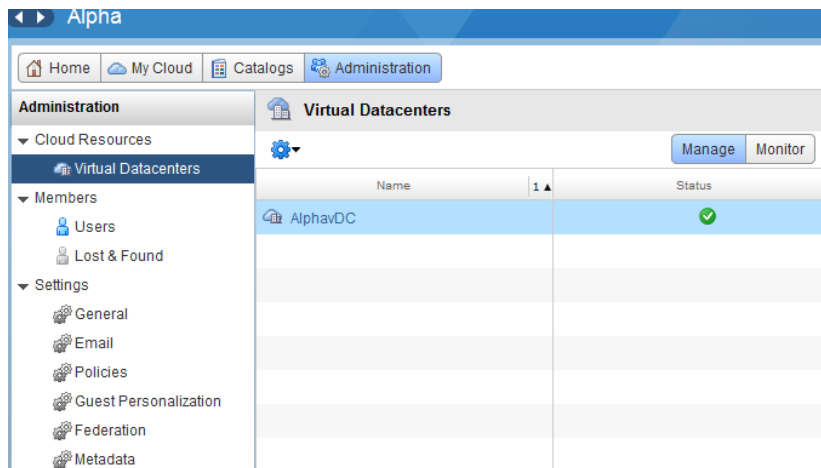
You can add a pool server to manage and share back-end servers flexibly and efficiently. A pool manages health check monitors and load balancer distribution methods.

### Example: Load Balancing Example for the Backend VM Servers Alpha10,11

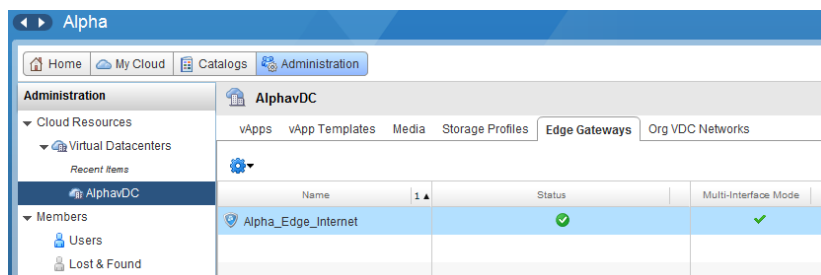


## Procedure

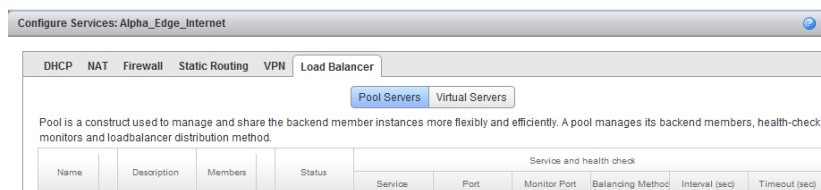
- A. Click the **Administration** tab and click **Virtual Datacenters** in the left pane.
- B. Double-click the organization vDC **AlphavDC**.



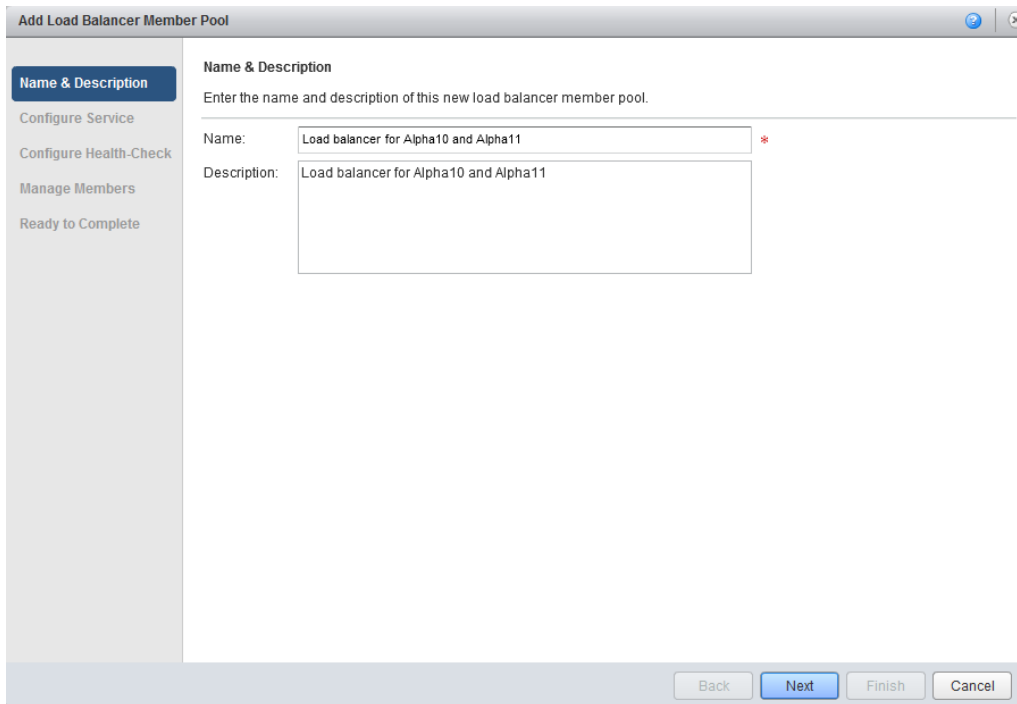
- C. Click the **Edge Gateways** tab, right-click the edge gateway **Alpha\_Edge\_Internet** and select **Edge Gateway Services**.



- D. On the **Load Balancer** tab, click **Pool Servers** and click **Add**.



E. Type a name and optionally a description for the pool server and click **Next**.



**Add Load Balancer Member Pool**

**Name & Description**

Enter the name and description of this new load balancer member pool.

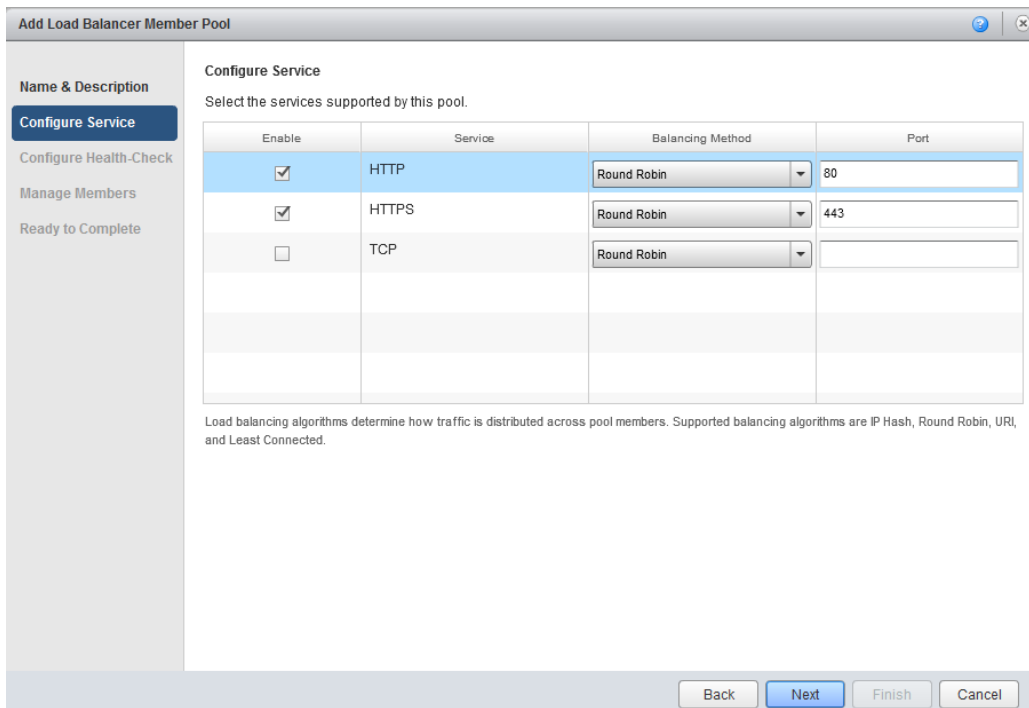
Name:  \*

Description:

Buttons: Back, Next, Finish, Cancel

F. Click **Enable** for each service to support.

G. Select a balancing method from the drop-down menu for each enabled service.



**Add Load Balancer Member Pool**

**Configure Service**

Select the services supported by this pool.

Enable	Service	Balancing Method	Port
<input checked="" type="checkbox"/>	HTTP	Round Robin	80
<input checked="" type="checkbox"/>	HTTPS	Round Robin	443
<input type="checkbox"/>	TCP	Round Robin	

Load balancing algorithms determine how traffic is distributed across pool members. Supported balancing algorithms are IP Hash, Round Robin, URI, and Least Connected.

Buttons: Back, Next, Finish, Cancel

- H. Click **Next**
- I. Change the monitor port if required for each service that is to be supported by this pool.
- J. Select the health check mode from the drop-down menu for each service.
- K. For HTTP, type the URI referenced in the HTTP ping requests.

Add Load Balancer Member Pool

**Configure Health-Check**  
Define the default health check parameters for each service.

Service	Port	Monitor Port	Mode	Interval (sec)	Timeout (sec)	Health Threshold	Unhealth Threshold
HTTP	80	80	HTTP	5	15	2	3
HTTPS	443	443	SSL	5	15	2	3
TCP			TCP	5	15	2	3

URI for HTTP service: /

The URI that will be polled at regular intervals to check the health of HTTP service.

Back Next Finish Cancel

- L. Click **Next**.
- M. Click **Add** to add a back-end server to the pool.

Add Load Balancer Member Pool

**Manage Members**  
Add back-end servers which will be part of this pool.

IP Address	Ratio Weight	Service and health check		
		Service	Port	Monitor Port

Add... Edit... Delete

Back Next Finish Cancel

N. Type the IP address of the **Alpha10** Virtual Machine.

O. Type the weight to indicate the ratio of how many requests are to be served by this back-end server.

**Add Member** ? ✕

IP Address:  \*

Ratio weight:  \*

Specify how requests will be proportionately routed to an instance.  
Setting ratio weight to 0 will disable the member.

Services & Monitoring:

Service	Port	Monitor Port
HTTP	<input type="text" value="80"/>	<input type="text" value="80"/>
HTTPS	<input type="text" value="443"/>	<input type="text" value="443"/>
TCP	<input type="text"/>	<input type="text"/>

P. Click **OK**.

Q. Repeat **Step O** through **Step S** to add the **Alpha11** Virtual Machine.

R. Click **Next**.

S. Verify that the settings for the pool server are correct and click **Finish**.

**Add Load Balancer Member Pool** ? ✕

**Ready to Complete**

You are about to create a new load balancer pool. Review the settings and click on Finish to complete.

Name: Load balancer for Alpha10 and Alpha11

Description: Load balancer for Alpha10 and Alpha11

Services and Health check:

Enable	Service	Port	Monitor Port	Balancing Method	Interval (sec)	Timeout (sec)	Health Threshold	Unhealth Threshold
✓	HTTP	80	80	Round Robin	5	15	2	3
✓	HTTPS	443	443	Round Robin	5	15	2	3
✗	TCP			Round Robin	5	15	2	3

URI for HTTP service: /

Members:

IP Address	Ratio Weight	Service and health check		
		Service	Port	Monitor Port
192.168.1.10	1	HTTP HTTPS	80 443	80 443

## Overview

Configure Services: Alpha\_Edge\_Internet

DHCP NAT Firewall Static Routing VPN **Load Balancer**

Pool Servers Virtual Servers

Pool is a construct used to manage and share the backend member instances more flexibly and efficiently. A pool manages its backend members, health-check monitors and loadbalancer distribution method.

Name	Description	Members	Status	Service and health check					
				Service	Port	Monitor Port	Balancing Method	Interval (sec)	Timeout (sec)
LoadBalancer	LoadBalancer	2	✘	HTTP	80	80	Round Robin	5	15
				HTTPS	443	443	Round Robin	5	15

Add... Edit... Delete

OK Cancel

Known Issue:

Support Request VMware: 13275028401

The Load Balancing Functionality is working but the vShield Edge Gateway show a incorrect status.



## 2. Add a Virtual Server to an vCloud Networking&Security Edge

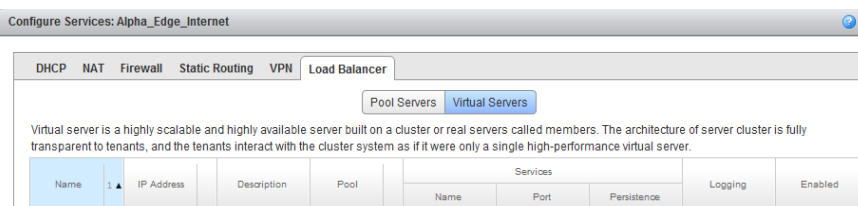
A virtual server is a highly scalable and highly available server built on a cluster of servers called members.

### Prerequisites:

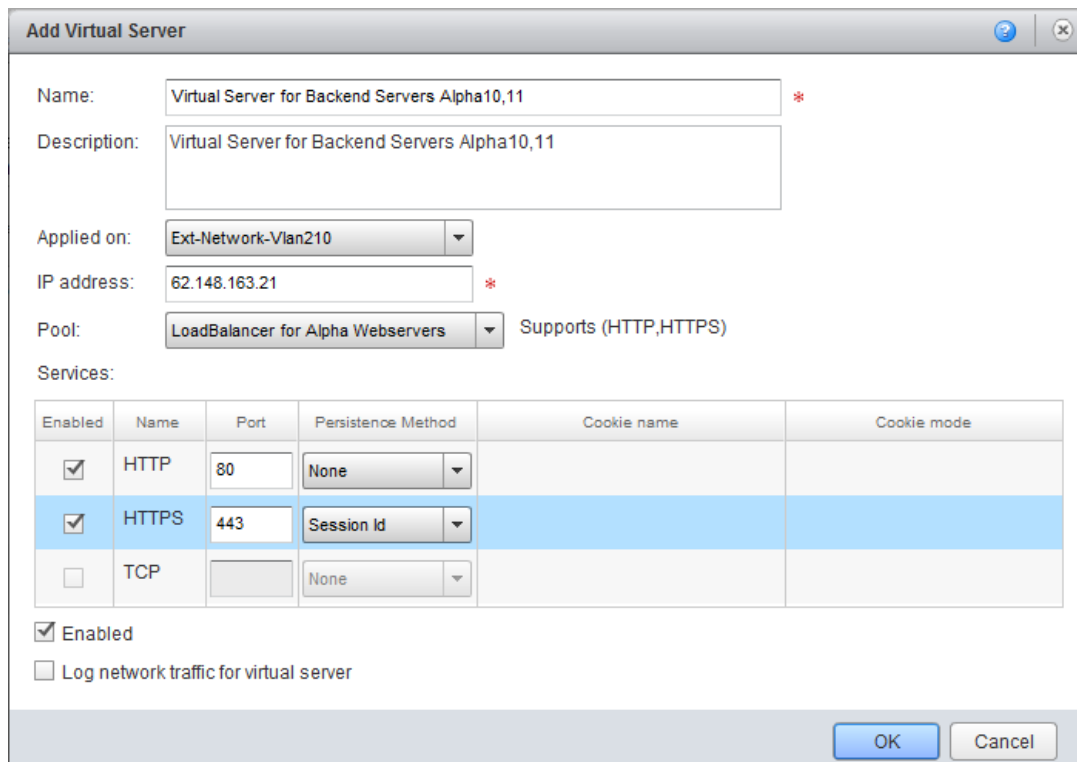
The edge gateway must have at least one pool server.

### Procedure

- A. On the **Load Balancer** tab, click **Virtual Servers** and click **Add**.



- B. Type a name for the virtual server.  
 C. Type a description for the virtual server.  
 D. Select an external network from the **Applied on** drop-down menu.  
 E. Type the External IP address of the virtual server.  
 F. Select a pool from the drop-down menu to be associated with the virtual server.  
 G. In **Services**, select **Enable** for each service to be supported.  
 H. Change the default Port, Persistence Method, Cookie Name, and Cookie Mode values for each enabled service as required.  
 I. Click **Enabled** to enable the virtual server.  
 J. Click **OK**.



The 'Add Virtual Server' dialog box contains the following fields and options:

- Name:** Virtual Server for Backend Servers Alpha10,11 \*
- Description:** Virtual Server for Backend Servers Alpha10,11
- Applied on:** Ext-Network-Vlan210
- IP address:** 62.148.163.21 \*
- Pool:** LoadBalancer for Alpha Webservers Supports (HTTP,HTTPS)
- Services:**

Enabled	Name	Port	Persistence Method	Cookie name	Cookie mode
<input checked="" type="checkbox"/>	HTTP	80	None		
<input checked="" type="checkbox"/>	HTTPS	443	Session Id		
<input type="checkbox"/>	TCP		None		
- Enabled
- Log network traffic for virtual server

Buttons: OK, Cancel