ALB-X VA Installation Guide

Document: jetNEXUS Accelerating Load Balancer virtual appliance Installation guide
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http://www.jetNEXUS.com/crmselfservicedemo/

Information on Virtual appliance may be found here:

http://www.VMware.com/appliances/deploy/why.html

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Contents

Document Scope

The aim of the document is to provide a deployment overview and assistance with the implementation of the Accelerating Load Balancer Virtual Appliance (here in referred to as the ALB-X VA) into a virtual network environment. The document aims to assist the reader in configuring the ALB-X VA so that it can be managed via the web interface. Please refer to the "Getting Started Guide for ALBX-VA" for configuration of services.

What is the ALB-X VA?

The ALB-X VA is an Application Delivery Controller Virtual Appliance (ADC VA) sometimes referred to as a next generation load balancer. It offers all the features you would expect from a load balancer but also advanced features such as content compression, connection management and pooling, 'server too busy' page, advanced server health check, content manipulation and content caching to name but a few. It has been designed to offer excellent price/performance within the VMware Virtual environment.

Recommended VMware configuration for ALB-X VA

The ALB-X VA is suitable for VMware ESX Server or Workstation.

We would recommend a minimum of 256MB (up to 4GB) of allocated memory and 4GB of disk space. When caching is enabled, 1GB to 2GB of Memory is recommended depending on the size of the cache.

Installing jetNEXUS Virtual Appliance to ESX/ ESXi Server

The jetNEXUS Virtual appliance can be easy installed onto an ESX or ESXi server using the following steps:

1) Download and unpack the jetNEXUS Virtual appliance zip package for ESX server
2) Open VMware Virtual Infrastructure Client or vSpere Client depending on what version of ESX you are using.
3) In vSphere select File: Deploy OVF. Chose to either open the file you have downloaded or you may chose to download a new OVF from the jetNEXUS web site. You will be asked to name the appliance and then you are ready to run it.

Installing the Virtual Appliance onto VMware Server or Workstation

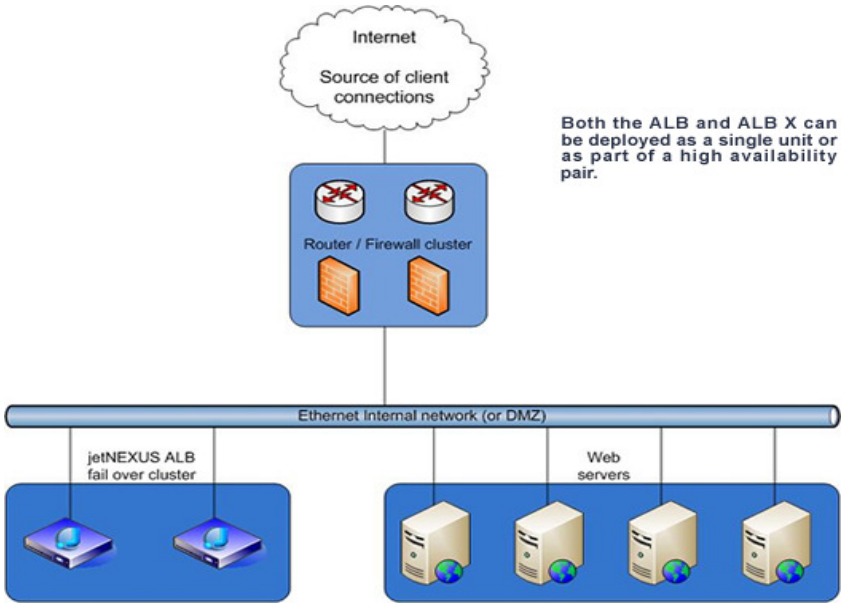
1. Download and unzip the jetNEXUS Virtual appliance zip package for VMware Workstation to your workstation or windows server
2. Navigate to the newly created folder and double click the .vmx file. This will load VMware server or Workstation and open the Virtual appliance.

Deployment

There are two fundamental ways to deploy jetNEXUS Accelerating Load Balancer. The first way uses a single simplified network which is flat. This is called “One-Armed configuration”. This is suitable for most networks. The second deployment is “Two-Armed configuration”. This is used when you have an extra layer of separation in your network. The jetNEXUS can proxy the traffic between the two networks.

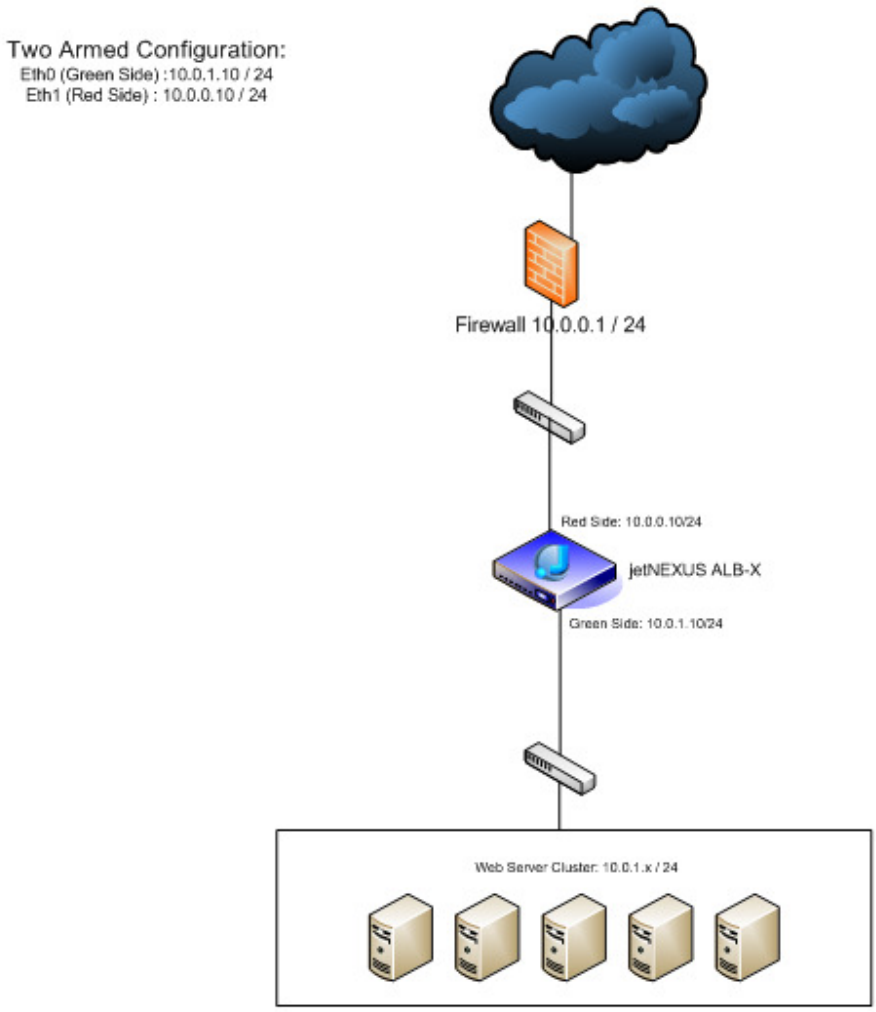
One-Armed Configuration

For one-armed configuration, all traffic passes over a single network interface. jetNEXUS ALB-X accepts connections on a listening socket (combination of IP address and port) and processes them. It then creates a connection of its own to a backend server based on a load balancing policy. When it gets the required data from the server, the jetNEXUS ALB-X then sends it on to the client. In this configuration the web management traffic also goes over the single interface.



Two-Armed Configuration

In two-armed configuration all traffic between the client and jetNEXUS ALB-X goes over the “Red Side” network interface. All traffic between jetNEXUS ALB-X and the web servers goes over the “Green Side” interface. Again jetNEXUS ALB-X creates it own connections to the servers and proxies the data from the client. In this configuration the management traffic ONLY goes over the “Green Side” interface. This ensures that it cannot be accessed from an external location.



Initial configuration

The device can be configured via the web interface or by command line with access via the console or SSH.

We would suggest changing the basic management IP so that it can be used on your network and then completing the configuration via the web interface.

Command line configuration

Many of the configuration settings can be made via the jetNEXUS command line interface. However for intial configurations it may be useful to change some of the basic network setting via the CLI.

Open up a screen to the console using VMware Infrastructure manager or VMware player.

Log into the console with the following credentials Username=admin, Password=jetNEXUS

Then run the following command:

```
set greenside =192.168.12.150
```

To change the subnet mask:

```
set mask eth0 255.255.0.0
```

You can check your changes by running the show command for example (show greensideIP)

If you need to change the default gateway you need to run the following command. In this example it will change it to 192.168.10.1. Be careful when changing the gateway remotely as if you get it wrong you may have a long drive!

```
route add –net 0.0.0.0 netmask 0.0.0.0 gw 192.168.10.1
```

To exit this CLI type ***exit***

Configuration using the web interface:

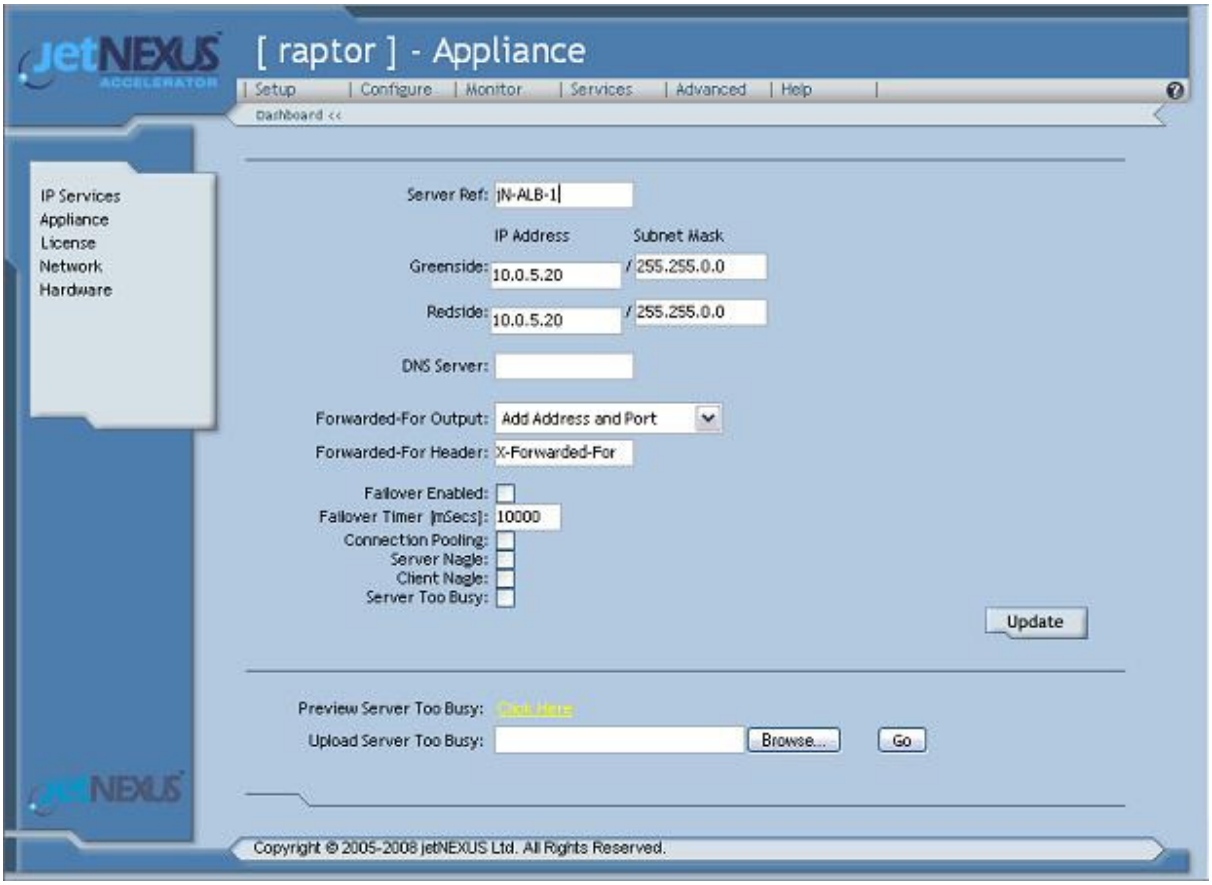
The web interface can be accessed via the following IP (unless it has been previously changed)

https://192.168.1.100:27376 or http://192.168.1.100:27374 for non SSL

You will be challenged for a username and password: Username=admin, Password=jetNEXUS

The first item to configure when setting up jetNEXUS ALB-X is the basic networking. This is done on the

“Setup > Appliance” screen:

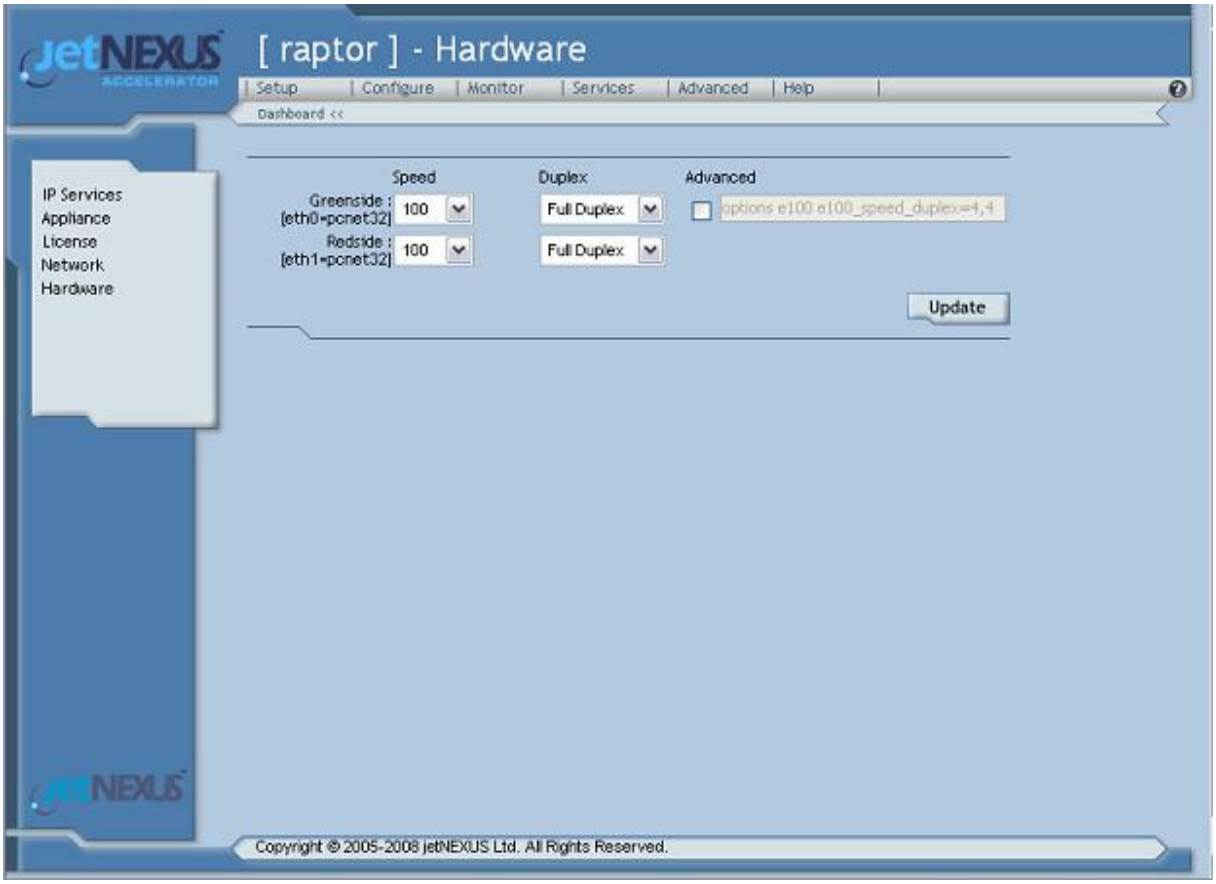


On this screen set the name of the appliance in “Server Ref”. Then to setup “One-Armed” mode you set the management IP address and Subnet mask. Set this the same for BOTH Red and Green side interfaces. If these are not both set, the software will not enter “One-Armed” mode. You can also specify a DNS server on this screen.

The two Forwarded-For items pass the client details to the content server. These add a header to the http data for “X-Forwarded-For”. This is used for logging or ACLs.

Below that are the options for performance tuning of jetNEXUS ALB-X. The failover box controls whether the appliance acts as a single machine or as part of a High-Availability cluster. When you have more than one jetNEXUS ALB-X and require high-availability failover, tick this box. The rest of the options on this screen are beyond the scope of this guide and help can be found in the full manual. Once you have configured your settings, click the update button at the bottom of the screen.

Next we move on to the hardware settings for the virtual network cards:

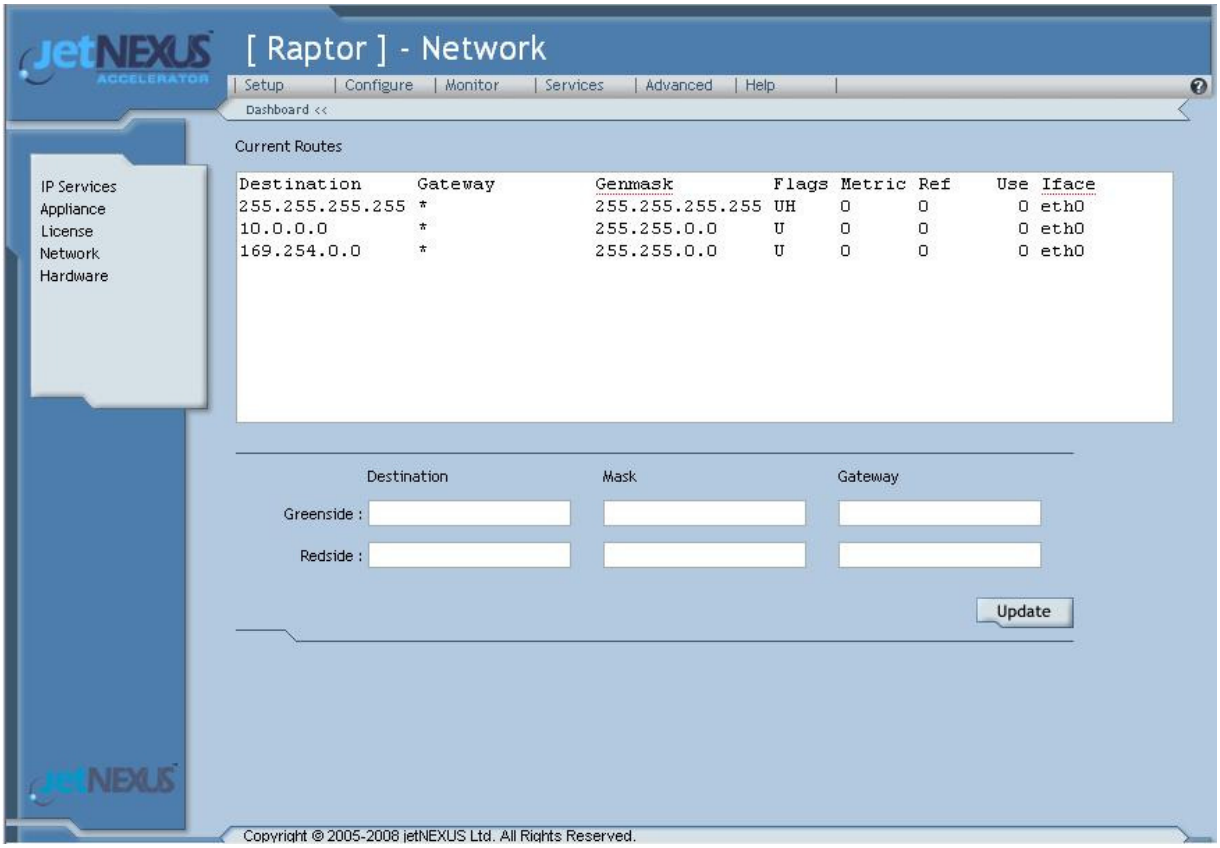


The settings on this screen control the network access. The defaults are to fix speed at 100 Mbps and full duplex. This avoids any issue with certain networking devices that have auto-negotiation which re-negotiates too frequently. This can be left as auto/auto. If this does not work, set the exact network hardware values. Again if you have changed any of these settings click the update at the bottom of the screen.

Next we move on to setting up the default gateway. Go to the “Setup > Network”. On this screen we configure a default gateway. On a “One-Armed” configuration this is set on the green side. On a Two-Armed configuration the entry will be on the Red-Side. The entry for the default route is:

Destination	Mask	Gateway
0.0.0.0	0.0.0.0	<gateway address>

You must set the “Gateway” setting (<gateway address>) to the right IP address on the appropriate router on your network.



Once you have entered the default route click the update button.

At this point we are ready to configure IP services to be processed by jetNEXUS ALB-X.

Please see: Getting Started Guide for ALB-X VA.