



#1 Load Balancer
in price/performance

*Configuring Exchange 2010/2013
with Kemp Load Balancer*

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Hardware load balancers have been gaining popularity over the years with Exchange versions and it has been a while I thought I should review one of my favorite in this area.

Steps in this article doesn't require you to purchase any licenses but you can use the trial version. Remember – it is always best to know how a hardware load balancer function.

So let's walk-through of the setup, configuring and managing a virtual KEMP load balancer to use with Exchange 2010.

Virtual LoadMaster installs and runs as a hardened, 'Guest' operating OS/Application on a dedicated virtual machine. It provides the same features of the LoadMaster appliance including L4 load balancing, L7 content switching, SSL Offload, Server and Application Health Checking, IP and L7 Persistence, Caching, Compression, IPS and much more. It also supports stateful Active/Hot-standby configuration between two VLMs for redundancy and high-availability.

I am going to start with step 1 which is downloading the VM.

Virtual LoadMaster Download: www.kemptechnologies.com/us/server-load-balancing-appliances/virtual-loadbalancer/vlm-download.html

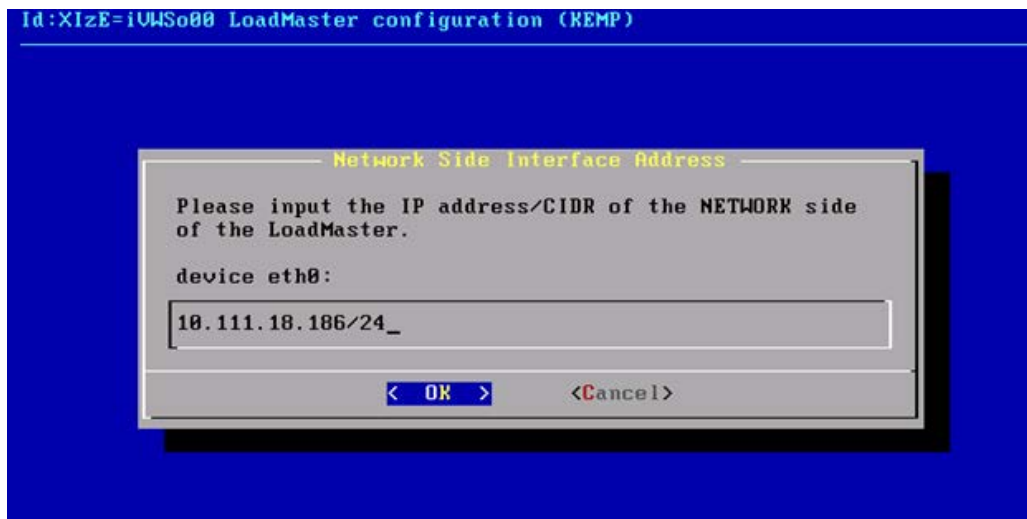
I used – VMware Workstation, Server, and Player (Requires 512MB disk space and at least 1GB memory) VMDK file. Remember you may need to download VM Player and go to the properties of the machine and make it run using one processor as the default value is 1.

The purpose of this article is to have the load balancer accept all connections send to my exchange 2010 server and we will test this using OWA access.

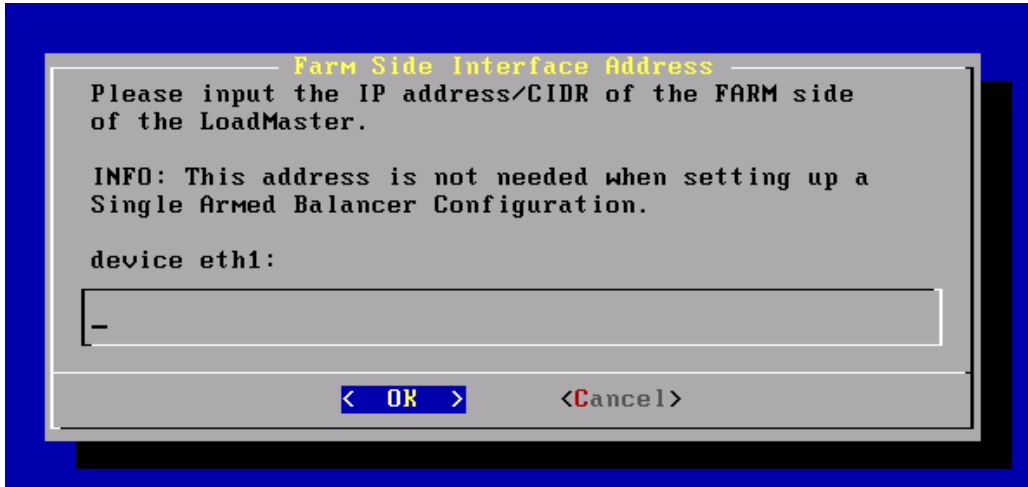
Once you load the VM to player and switch on the machine, you will be asked to put the username and password.

For me, the username was bal and password was 1fourall

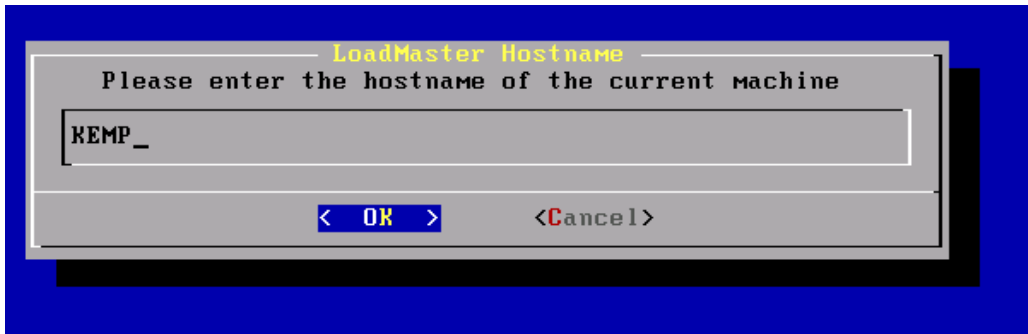
Once you login, you would be required to put a license code which will be generated to you when you contact their helpdesk for a trial license.



The next screen can be ignored.



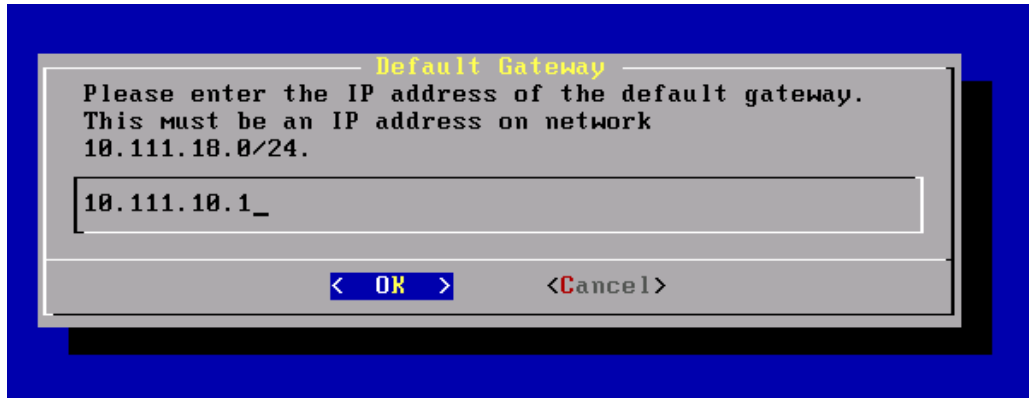
Type in a name for the host as shown.



Type the DNS server name here.



Now type the default gateway here.





Once the setup process is over, the load balancer will reboot.

Once rebooted, login to a web browser:

<https://10.111.xx.xxx/>

It will prompt you to login, once logged in, you will be seeing this screen:

IP address	10.111.18.186
Machine Identifier	XIzE=iVWSo00 (Instance 10360)
Boot Time	Mon Mar 4 15:19:37 UTC 2013
LoadMaster Version	6.0-42
License	Activation date: February 26 2013 Licensed until: March 29 2013
CPU Load	2% 
TPS	Total 0 (SSL 0)
NetLoad	Mbits/sec
eth0	0.1 

Now create a new Virtual service for Exchange 2010 as shown.

KEMP LoadMaster

04:28:56 PM

Add a new Virtual Service

Please Specify the Parameters for the Virtual Service.

Virtual Address	10.111.18.184
Port	443
Service Name (Optional)	Exchange2010
Protocol	tcp

Cancel Add this Virtual Service

Scroll down and click real servers and ADD NEW.

Real Servers

Add New ...

Real Server Check Parameters

HTTPS Protocol Checked Port Set Check Port

URL: Set URL

Use HTTP/1.1:

HTTP Method: HEAD

Custom Headers: Show Headers

Add the server ip where LB should forward traffic to.

Please Specify the Parameters for the Real Server

Real Server Address	10.111.18.185
Port	443
Forwarding method	nat
Weight	1000
Connection Limit	

<-Back Add This Real Server

Once this step is completed, now you may view the status.

Add New

	Virtual IP Address	Prot	Name	Layer	Certificate Installed	Scheduler	Status	Real Servers	
1	10.111.18.184:443	tcp	Exchange2010	L7	on Real Server	least connection	Up	10.111.18.185	Modify Delete

Create a new instance for CASArray and specify the port to *

Please Specify the Parameters for the Virtual Service.

Virtual Address	10.111.18.184
Port	*
Service Name (Optional)	CASArray
Protocol	tcp

Cancel Add this Virtual Service

If you need to create an HTTP redirector, click the option as shown:

Advanced Properties

"Sorry" Server	Port	Set Server Address
Default Gateway	Set Default Gateway	
Add a Port 80 Redirector VS	Redirection URL: https://%h%\$	Add HTTP Redirector
Service Specific Access Control	Access Control	

The final status will be like as shown which is a standard Exchange 2010 configuration for Load balancer:

LoadMaster

05:11:47 PM Virtual Services Vers:6.0-42(VMware)

Revalidating server health
Reloading in 11 Seconds.

Add New

	Virtual IP Address	Prot	Name	Layer	Certificate Installed	Scheduler	Status	Real Servers	
1	10.111.18.184:*	tcp	CASArray	L7		round robin	Up	10.111.18.185	Modify Delete
2	10.111.18.184:80	tcp		L7		round robin	Redirect		Modify Delete
3	10.111.18.184:443	tcp	Exchange2010	L7	on Real Server	least connection	Up	10.111.18.185	Modify Delete

Now it is time to test. Simply open a web browser and navigate to the address of the virtual instance and you should be able to view the OWA page.

There are several standard templates available for you to use with and an amazing Sizing guide for Exchange 2010:

LoadMaster Sizing Guide for Microsoft Exchange 2010 (Beta v0.8):

http://www.kemptechnologies.com/fileadmin/templates/sizingDoc/lme_calc_2k/lme_calc_2k.htm

Conclusion

To sum it all up, I think Kemp load balancer is an outstanding product not just for Exchange but other applications too. For instance, I have an SMTP relay service which is now hosted on Kemp which is used by several applications like Sharepoint, SAP, Oracle etc to relay emails. The product also feature excellent reporting features and SSL certificate offloading services too. Here comes the best part – You don't need to be a networking expert or load balancer guru with specialized skills to administer this product – an exchange admin knowledge would do just fine ! Kemp also provides superior customer support round the clock...

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