

## LoadMaster System Center Plugin

### **Feature Description**

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**1** Related Firmware Version



## 1 Related Firmware Version

Published with LMOS version 7.2.48.3 LTS. This document has not required changes since 7.2.48.3 LTS. However, the content is in sync with the latest LoadMaster LTS firmware.

2 Prerequisites



## 2 Prerequisites

The following prerequisites are required in order to utilize the Kemp LoadMaster plugin for System Center Virtual Machine Manager (SCVMM) 2012 R2:

• System Center Virtual Machine Manager (SCVMM) 2012 R2 must be fully deployed based on Microsoft best practices.

- Generation 1 Virtual Machine (VM) Templates to be used within Service Template configuration.

 A Kemp LoadMaster must be fully deployed based on Kemp best practices. Further Kemp documentation can be found on the Kemp website: http://kemptechnologies.com/documentation/

- Enable the API Interface on the LoadMaster within **Remote Access** settings. For step-by-step instructions on how to do this, refer to the next section.

### 2.1 Enable the API Interface on the LoadMaster

In order for the System Center VMM plugin to work with the LoadMaster, the API interface on the LoadMaster must be enabled. To enable it, follow the steps below in the LoadMaster Web User Interface (WUI):

Administrator Access	
Allow Remote SSH Access	Using: All Networks V Port: 22 Set Port
SSH Pre-Auth Banner	Set Pre-Auth Message
Allow Web Administrative Access	✓ Using: eth0: 10.35.48.22 ✓ Port: 443
Admin Default Gateway	Set Administrative Access
Allow Multi Interface Access	
Enable API Interface	
Self-Signed Certificate Handling	RSA self-signed certs ~
Outbound Connection Cipher Set	None - Outbound Default v
Admin Login Method	Password Only Access (default) <ul> <li>Only Password mode is available if no Pre-Auth Banner is specified</li> </ul>
Enable Software FIPS 140-2 level 1 Mode	Enable Software FIPS mode
Enable Kemp Analytics	

1. In the main menu, go to **Certificates & Security > Remote Access**.

2. Tick the Enable API Interface check box.

3 Install the SCVMM Configuration Provider



# 3 Install the SCVMM Configuration Provider

To install the SCVMM Configuration Provider, follow the steps below:

1. Download the Kemp LoadMaster plugin for SCVMM 2012 R2 from the Kemp documentation page - <u>http://www.kemptechnologies.com/documentation/</u>.

Attributes:	Read-only Hidden	Advanced
Security:	This file came from another computer and might be blocked to help protect this computer.	Unblock
	OK Cancel	Apply

Before you extract the zip file, open the properties and click **Unblock** if necessary.

2. Extract the zip file.

3. Open Windows PowerShell as Administrator and navigate to the location of the extracted files.



#### 4. Run the InstallForAllUser.cmd file.

5. Verify the installation of the PowerShell modules by ensuring that the **KempLB** folder has been placed in the following location:

C:\Windows\System32\WindowsPowershell\v1.0\modules\KempLB

PS C:\KempLB-SCVMM> Install-KempVMMConfigurationProvider\_

6. When the installation has completed, run Install-KempVMMConfigurationProvider

3 Install the SCVMM Configuration Provider



This will restart VMM services.

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4 Add the Kemp LoadMaster to the SCVMM



# 4 Add the Kemp LoadMaster to the SCVMM

System Center Virtual Machine Manager 2012 R2 is now able to accept the Kemp LoadMaster as a load balancer within the Fabric. To add the LoadMaster to the SCVMM, follow the steps below:

- 1. Launch the Virtual Machine Manager console.
- 2. Select **Fabric** in the left-hand navigation.



3. Add Load Balancer under Networking, right-click **Load Balancers** and select **Add Load Balancer**.





4. Click Browse.

#### 5. Click Create Run As Account.

	Create Run As Account	×
Provide th	he details for this Run As account	
Name:	LoadMaster-RA	
Description:	Run As Account for KEMP LoadMaster	
Userseen		
User name:	Example: contoso\domainuser or localuser	
Password:	•••••	
Confirm pass	sword:	
Validate o	domain credentials	

6. Enter the LoadMaster login details for the **bal** account.

2	Add Load Balancer Wizard	x
h Host Grou	p	
Credentials	Specify the host groups for which the load balancers will be available	
Host Group	Selecting a top-level host group automatically selects its child groups.	
Manufacturer and Model	Host groups:	
Address	All Hosts	
Logical Network Affinity	🖻 🗌 🎲 PM Infrastructure	_
Provider	Workloads     Workloads     Workloads	
Summary	🗌  Infrastructure Management	





7. Select which host groups the LoadMaster should be available to.

2	Add Load Balancer Wizard			
🎥 Manufactu	irer and N	lodel		
Credentials	Specify ma	nufacturer and model of load bal	ancers	
Host Group		V		
Manufacturer and Model	Manufacturer:	Kemp Inc	•	
Address	Model:	Kemp LoadMaster	•	
Logical Network Affinity				
Provider				
Summary				

8. Ensure that **Kemp Inc** and **Kemp LoadMaster** are selected as the **Manufacturer** and **Model**.

20	Add Load Balancer Wizard
h Address	
Credentials Host Group	Specify load balancer addresses Specify the addresses for the load balancers you want to use. Use commas or line breaks to separate your entries. Valid addresses include:
Manufacturer and Model	<ul> <li>IP addresses, including address ranges formatted as two IP addresses separated by a hyphen.</li> <li>DMS assess union although fully qualified domain assess (EODA) as MatRIVS assess</li> </ul>
Logical Network Affinity Provider Summary	<ul> <li>Divis names, using either runy qualities domain names (PQDIV) or NetbiO's names.</li> <li>Addresses:</li> <li>10.12.20.79</li> </ul>
	Port number: 443

9. Specify the IP address and port of the Kemp LoadMaster deployed in the environment.

4 Add the Kemp LoadMaster to the SCVMM



2	Add Load Balancer Wizard		
🔝 Logical Ne	twork Affinity		
Credentials	Specify the affinity to logical networks		
Host Group Manufacturer and Model Address	The virtual IP (VIP) address that is assigned to a load balancer is the front-end address for a service. The dedicated IP addresses that are assigned to the virtual machines in a service tier are the back-end addresses. Specify from which logical networks VMM should assign the front-end and back-end IP addresses. If you do not select at least one front-end and back-end logical network affinity, the load balancer will not be selected during placement.		
Logical Network Affinity	Logical networks:		
Provider	Logical Network	Front-end	Back-end
rionaci	Hyper-V Network Virtualization PA		
Summary	Infrastructure-Internal		
	Infrastructure-Internet		

10. Select which networks to use for the Front-end/Back-end.

Test results:		
Function	Implemented	Test Result
Retrieve-LBSystemInfo	Yes	Passed
Open-LBConnection	Yes	Passed
Close-LBConnection	Yes	Passed
Retrieve-LBKnownVip	Yes	Passed
Retrieve-LBKnownCertificate	Yes	Passed
Retrieve-LBKnownBalancingMethod	Yes	Passed
Retrieve-LBKnownPersistence	Yes	Passed

11. Click **Test** and confirm that all tests pass.

If some tests fail, please confirm that the API interface is enabled on the LoadMaster by following the steps in the **Enable the API Interface on the LoadMaster** section. 5 Add Virtual IP (VIP) Templates to the SCVMM



# 5 Add Virtual IP (VIP) Templates to the SCVMM

VIP Templates can be created after the LoadMaster has been added to SCVMM.

To create a VIP Template, follow the steps below:

4	📥 Networking 📕
	the Logical Networks
	🛎 MAC Address Pools
	😫 Load Balancers
	I VIP Templater
	🐺 Logical S 🔛   Create VIP Template
	Port Profiles
	📲 Port Classifications
	Network Service

1. Under Networking, right-click VIP Templates and select Create VIP Template.

2	Load balancer VIP template Wizard
🧧 Name	
Name	Specify a name and description for this template
Type Protocol Persistence	A virtual IP template contains load balancer-related configuration settings for a specific type of network traffic. The virtual port is the port that is used for the type of network traffic that you want to load balance. Template name: KEMP IIS 80
Load Balancing Health Monitors Summary	Description: Port 80 Virtual Service
	Virtual IP port: 80

- 2. Enter a name and description.
- 3. Enter the **Virtual IP port** number.



5 Add Virtual IP (VIP) Templates to the SCVMM

3	Load balancer VIP template Wizard
🔄 Туре	
Name	Specify a template type
Туре	Select the type of template to create that best matches your environment.
Protocol	○ Generic
Persistence	A generic template can be used on any supported load balancer.
Load Balancing	<ul> <li>Specific         A virtual IP template can be used only on a load balancer of a specific manufacturer and model.     </li> </ul>
Health Monitors	Manufacturer: Kemp Inc 🔹
Summary	Model: Kemp LoadMaster 💌

- 4. Select **Specific** and choose **Kemp Inc** and **Kemp LoadMaster**.
- 5. Select the relevant protocol option.

2	Load balar	ncer VIP template Wizard	x			
🧧 Persistence	9					
Name	Specify the persistent	re				
Туре	If you enable persistence, the load balancer will always try to direct the same client to the same virtual machine that is behind the load balancer.					
Protocol						
Persistence	✓ Enable persistence					
Load Balancing	Persistence type:	Source IP 🔹				
Health Monitors	Subnet mask to apply:	255.255.255				
Summary						

6. Select the desired **Persistence type**, if any.

2	Load balancer VIP templ	ate Wizard				
🧧 Load Bal	ancing					
Name	Specify a load balancing method					
Туре	Select one of the suailable load balancing me	thode				
Protocol	Load balancing method: Round Rohin					
Persistence	Evenly distributes requests across all available	servers				
Load Balancing	Evenity distributes requests across all available servers.					
Health Monitors						
Summary						

Use only persistence types found under Custom

5 Add Virtual IP (VIP) Templates to the SCVMM



7. Select the relevant **Load balancing method**.

Use only scheduling methods found under **Custom**.

Health Monitors are optional and can be added later.

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**6 Service Templates in SCVMM** 



## 6 Service Templates in SCVMM

After following the steps above, the Kemp LoadMaster should now be available to be added to Service Templates.



To add the LoadMaster, select Load Balancer and choose VIP Template.

Load Balancer   VIP Profile: KEMP IIS 80		
Load Balancer VIP Profile:	KEMP IIS 80	
Description	KEMP IIS 80	
Description:	KEMP IIS 443	
Load Balancer Manufacturer:	KEMP 5061	
Load Balancer Model:	Kemp LoadMaster	

Select the relevant Load Balancer VIP Profile.

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Last Updated Date



## Last Updated Date

This document was last updated on 08 December 2020.

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