



# LoadMaster System Center Plugin

## **Feature Description**

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#1 Load Balancer in Price/Performance, 360 Central, 360 Vision, Chef, Chef (and design), Chef Habitat, Chef Infra, Code Can (and design), Compliance at Velocity, Corticon, Corticon.js, DataDirect (and design), DataDirect Cloud, DataDirect Connect, DataDirect Connect64, DataDirect XML Converters, DataDirect XQuery, DataRPM, Defrag This, Deliver More Than Expected, DevReach (and design), Driving Network Visibility, Flowmon, Inspec, Ipswitch, iMacros, K (stylized), Kemp, Kemp (and design), Kendo UI, Kinvey, LoadMaster, MessageWay, MOVEit, NativeChat, OpenEdge, Powered by Chef, Powered by Progress, Progress, Progress Software Developers Network, SequeLink, Sitefinity (and Design), Sitefinity, Sitefinity (and design), Sitefinity Insight, SpeedScript, Stylized Design (Arrow/3D Box logo), Stylized Design (C Chef logo), Stylized Design of Samurai, TeamPulse, Telerik, Telerik (and design), Test Studio, WebSpeed, WhatsConfigured, WhatsConnected, WhatsUp, and WS\_FTP are registered trademarks of Progress Software Corporation or one of its affiliates or subsidiaries in the U.S. and/or other countries.

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# Table of Contents

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<b>1 Prerequisites .....</b>	<b>4</b>
1.1 Enable the API Interface on the LoadMaster .....	4
<b>2 Install the SCVMM Configuration Provider .....</b>	<b>5</b>
<b>3 Add the Kemp LoadMaster to the SCVMM .....</b>	<b>7</b>
<b>4 Add Virtual IP (VIP) Templates to the SCVMM .....</b>	<b>11</b>
<b>5 Service Templates in SCVMM .....</b>	<b>14</b>
<b>Last Updated Date .....</b>	<b>15</b>

# 1 Prerequisites

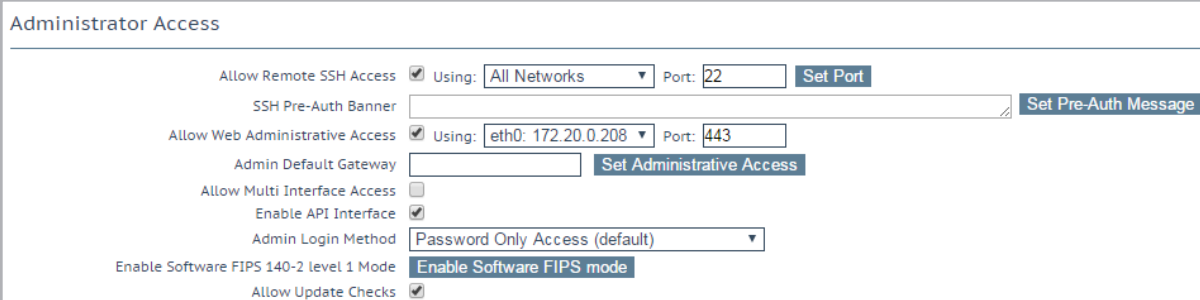
The following prerequisites are required in order to utilize the Kemp LoadMaster plugin for System Center Virtual Machine Manager (SCVMM) 2012 R2:

- 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.

## 1.1 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):

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



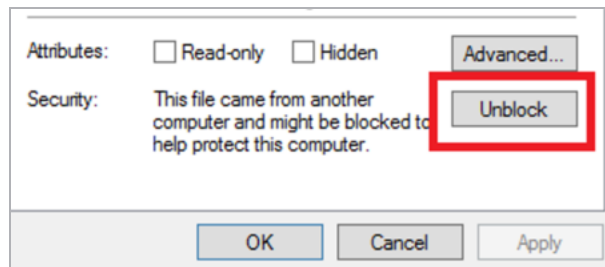
The screenshot shows the 'Administrator Access' configuration page in the LoadMaster WUI. The page has a header 'Administrator Access' and a list of settings. The 'Enable API Interface' checkbox is checked. Other settings include 'Allow Remote SSH Access' (checked), 'SSH Pre-Auth Banner' (empty), 'Allow Web Administrative Access' (checked), 'Admin Default Gateway' (empty), 'Allow Multi Interface Access' (unchecked), 'Admin Login Method' (Password Only Access (default)), 'Enable Software FIPS 140-2 level 1 Mode' (checked), and 'Allow Update Checks' (checked). Buttons for 'Set Port', 'Set Pre-Auth Message', and 'Set Administrative Access' are visible.

2. Tick the **Enable API Interface** check box.

## 2 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 - <http://www.kemptechnologies.com/documentation/>.

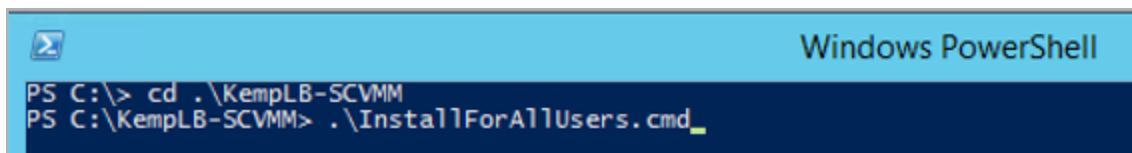


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Before you extract the zip file, open the properties and click **Unblock** if necessary.

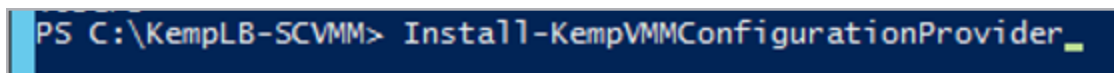
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2. Extract the zip file.
3. Open Windows PowerShell as Administrator and navigate to the location of the extracted files.



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**



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

## 2 Install the SCVMM Configuration Provider

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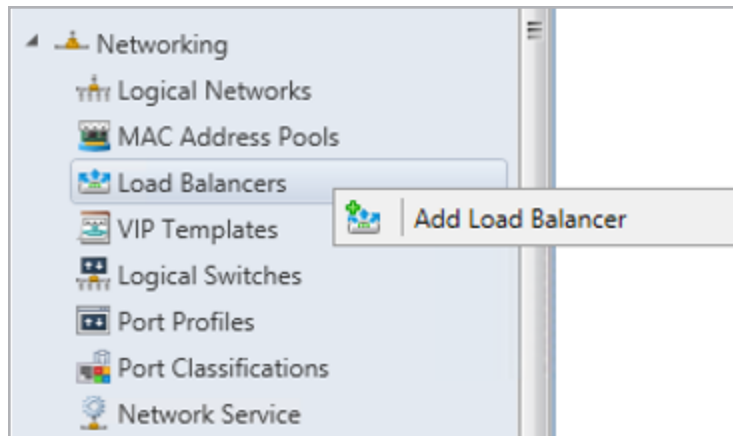
This will restart VMM services.

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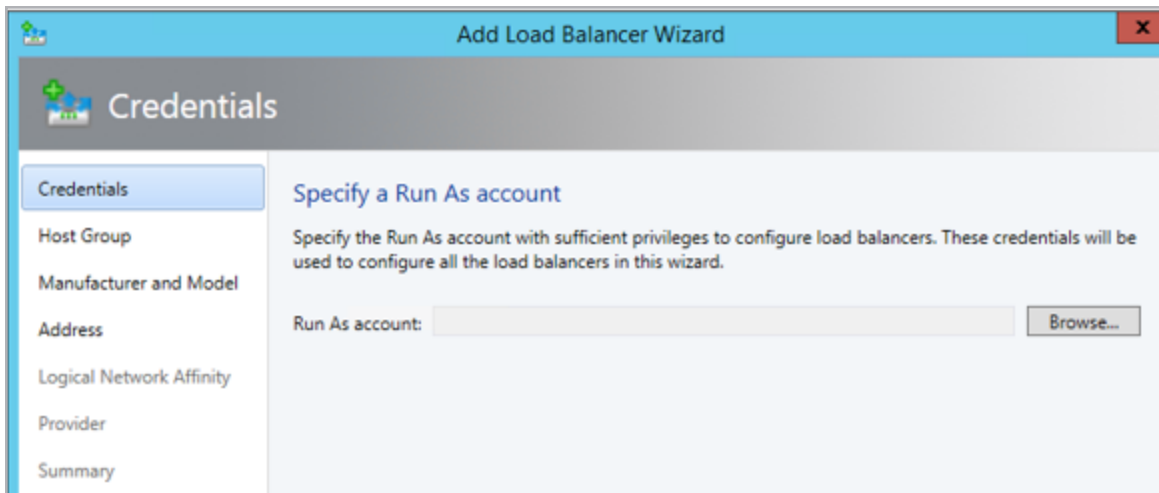
# 3 Add the Kemp LoadMaster to the SCVMM

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.

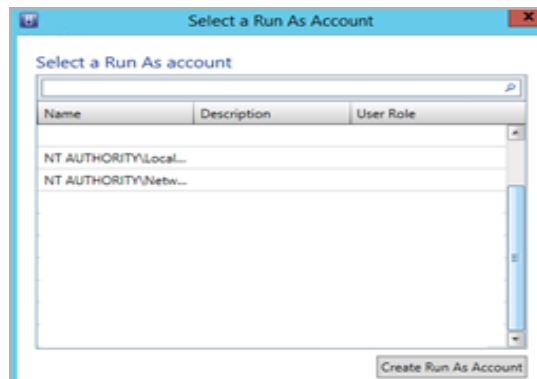


3. Add Load Balancer under Networking, right-click **Load Balancers** and select **Add Load Balancer**.

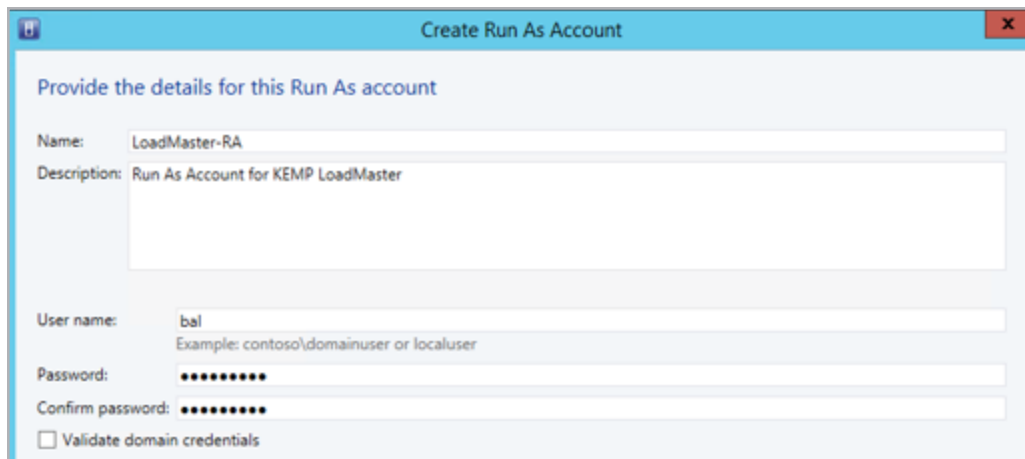


## 3 Add the Kemp LoadMaster to the SCVMM

4. Click **Browse**.



5. Click **Create Run As Account**.



Provide the details for this Run As account

Name: LoadMaster-RA

Description: Run As Account for KEMP LoadMaster

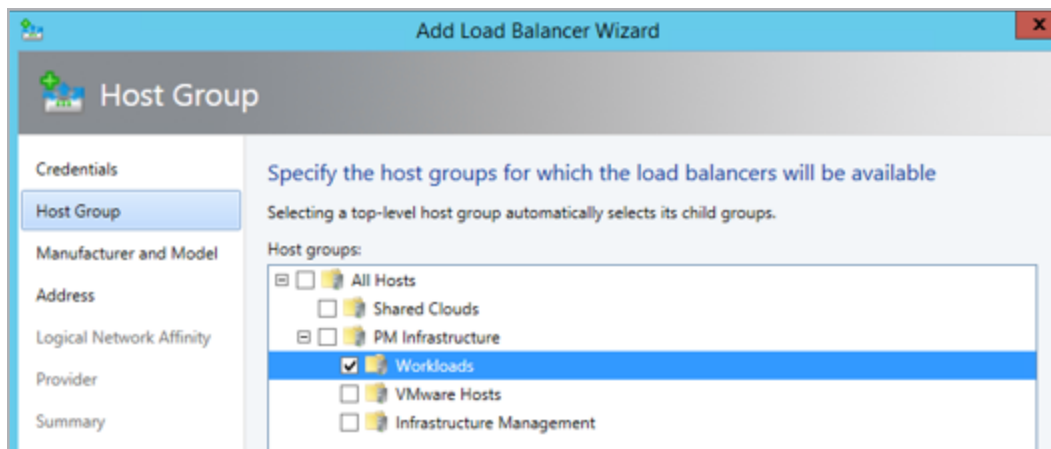
User name: bal  
Example: contoso\domainuser or localuser

Password: ●●●●●●

Confirm password: ●●●●●●

☐ Validate domain credentials

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



Add Load Balancer Wizard

Host Group

Credentials

Host Group

Manufacturer and Model

Address

Logical Network Affinity

Provider

Summary

Specify the host groups for which the load balancers will be available

Selecting a top-level host group automatically selects its child groups.

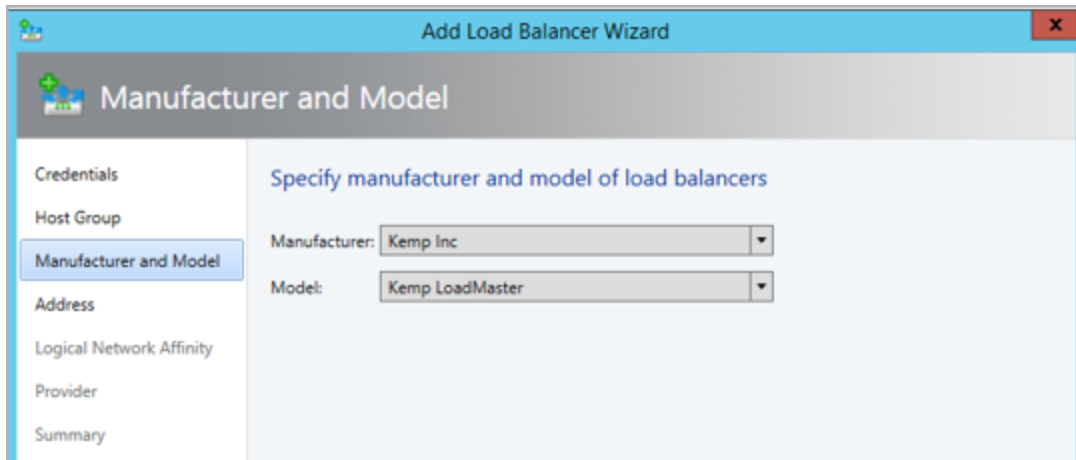
Host groups:

- ☐ All Hosts
- ☐ Shared Clouds
- ☐ PM Infrastructure
- ☒ Workloads
- ☐ VMware Hosts
- ☐ Infrastructure Management



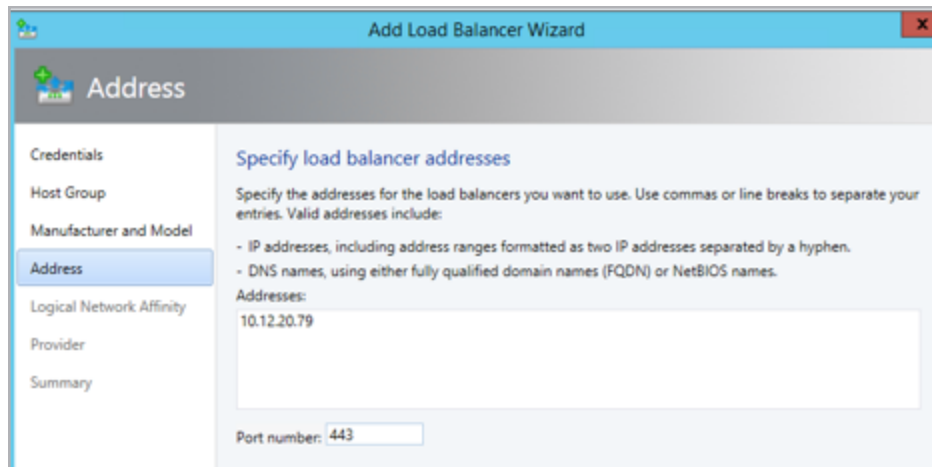
## 3 Add the Kemp LoadMaster to the SCVMM

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



The screenshot shows the 'Add Load Balancer Wizard' window with the 'Manufacturer and Model' step selected in the left-hand navigation pane. The main area is titled 'Specify manufacturer and model of load balancers'. It contains two dropdown menus: 'Manufacturer' set to 'Kemp Inc' and 'Model' set to 'Kemp LoadMaster'.

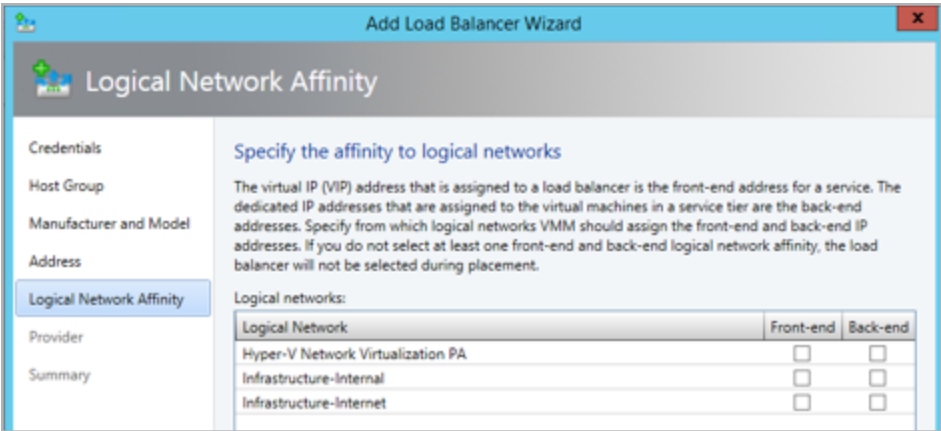
8. Ensure that **Kemp Inc** and **Kemp LoadMaster** are selected as the **Manufacturer** and **Model**.



The screenshot shows the 'Add Load Balancer Wizard' window with the 'Address' step selected in the left-hand navigation pane. The main area is titled 'Specify load balancer addresses'. It includes instructions: 'Specify the addresses for the load balancers you want to use. Use commas or line breaks to separate your entries. Valid addresses include: - IP addresses, including address ranges formatted as two IP addresses separated by a hyphen. - DNS names, using either fully qualified domain names (FQDN) or NetBIOS names.' Below this, there is a text box labeled 'Addresses:' containing the IP address '10.12.20.79'. At the bottom, there is a 'Port number:' field with the value '443'.

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

3 Add the Kemp LoadMaster to the SCVMM



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

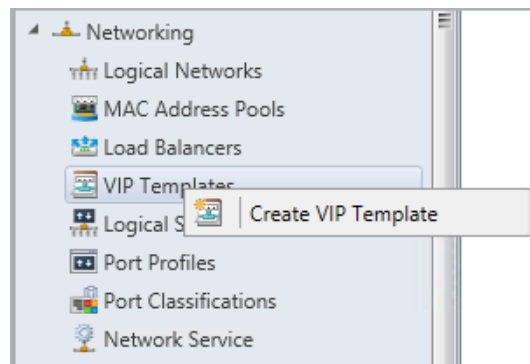
11. Click **Test** and confirm that all tests pass.

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.

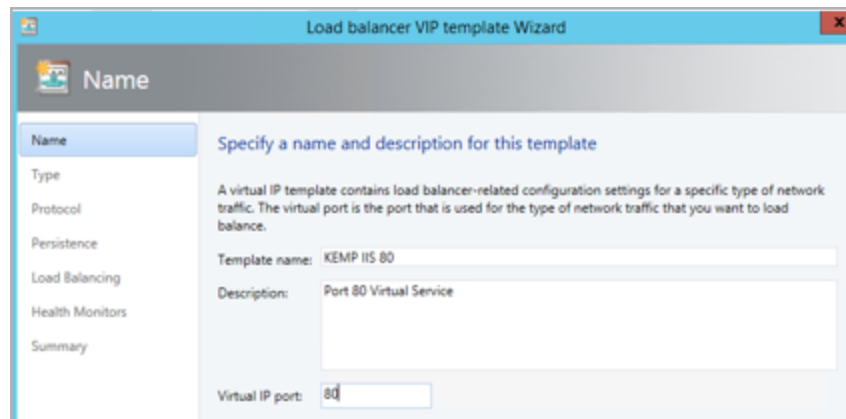
# 4 Add Virtual IP (VIP) Templates to the SCVMM

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

To create a VIP Template, follow the steps below:

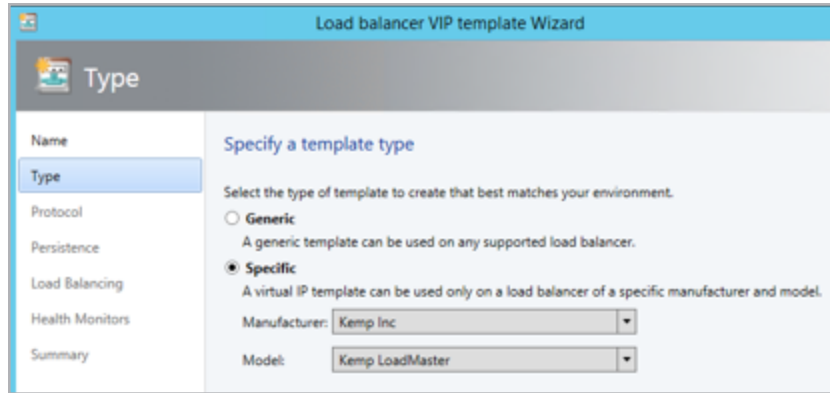


1. Under **Networking**, right-click **VIP Templates** and select **Create VIP Template**.



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

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



**Load balancer VIP template Wizard**

**Type**

**Name**

**Type**

**Specify a template type**

Select the type of template to create that best matches your environment.

☐ **Generic**  
A generic template can be used on any supported load balancer.

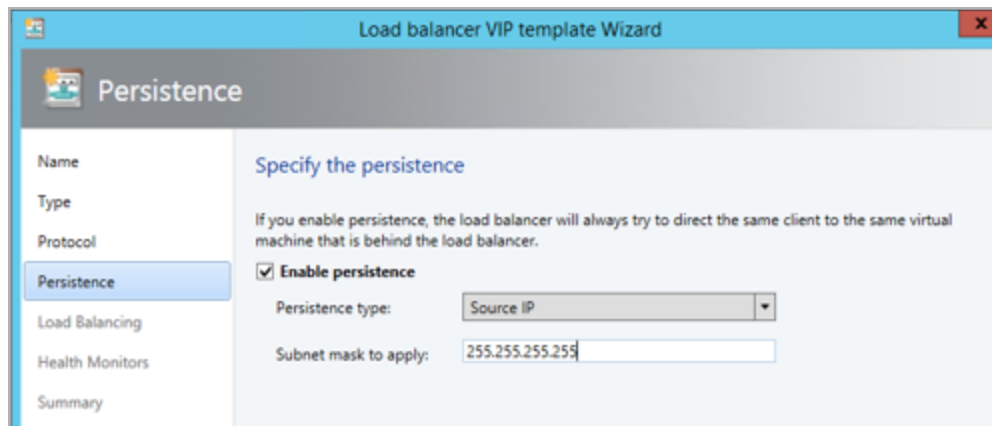
☒ **Specific**  
A virtual IP template can be used only on a load balancer of a specific manufacturer and model.

Manufacturer:

Model:

4. Select **Specific** and choose **Kemp Inc** and **Kemp LoadMaster**.

5. Select the relevant protocol option.



**Load balancer VIP template Wizard**

**Persistence**

**Name**

**Type**

**Protocol**

**Persistence**

**Specify the persistence**

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.

☒ **Enable persistence**

Persistence type:

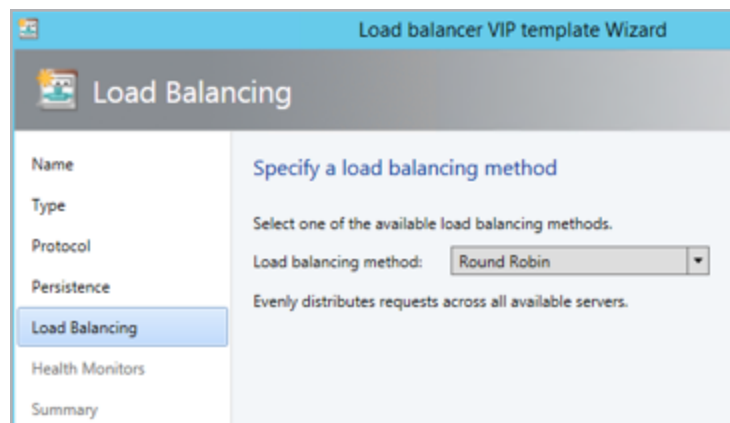
Subnet mask to apply:

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

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Use only persistence types found under **Custom**

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**Load balancer VIP template Wizard**

**Load Balancing**

**Name**

**Type**

**Protocol**

**Persistence**

**Load Balancing**

**Specify a load balancing method**

Select one of the available load balancing methods.

Load balancing method:

Evenly distributes requests across all available servers.

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

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

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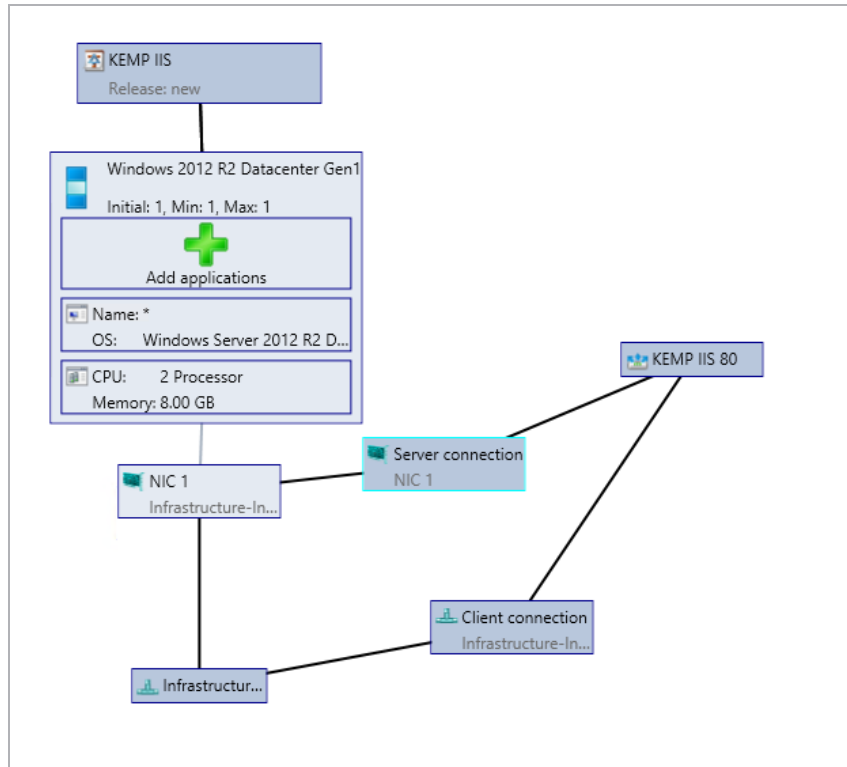
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Health Monitors are optional and can be added later.

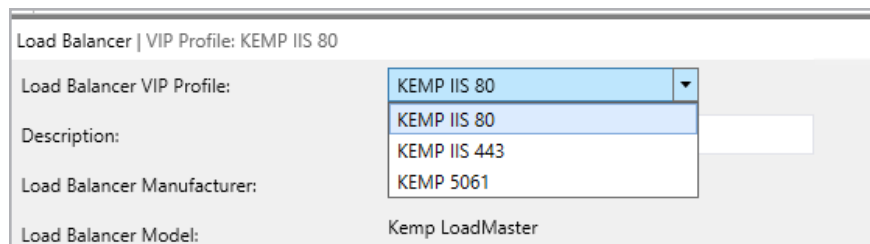
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# 5 Service Templates in SCVMM

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**.



The screenshot shows a 'Load Balancer' configuration window with the title 'Load Balancer | VIP Profile: KEMP IIS 80'. It contains the following fields:

- Load Balancer VIP Profile:** A dropdown menu with 'KEMP IIS 80' selected.
- Description:** A text field with 'KEMP IIS 80' entered.
- Load Balancer Manufacturer:** A dropdown menu with 'KEMP IIS 443' selected.
- Load Balancer Model:** A text field with 'Kemp LoadMaster' entered.

Select the relevant **Load Balancer VIP Profile**.

# Last Updated Date

This document was last updated on 27 July 2023.