



LoadMaster System Center Plugin

Feature Description

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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**.

1 Prerequisites

Administrator Access

Allow Remote SSH Access

☒ Using:

All Networks

 Port:

22

Set Port

SSH Pre-Auth Banner

Set Pre-Auth Message

Allow Web Administrative Access

☒ Using:

eth0: 10.35.48.11

 Port:

443

Admin Default Gateway

Set Administrative Access

Allow Multi Interface Access

☐

Enable API Interface

☒ Port:

443

Set Port

Self-Signed Certificate Handling

RSA self-signed certs

Outbound Connection Cipher Set

None - Outbound Default

Admin Login Method

Password Only Access (default)

Only Password mode is available if no Pre-Auth Banner is specified

Enable Software FIPS 140-2 Level 1 Mode

Enable Software FIPS mode

Enable Kemp Analytics

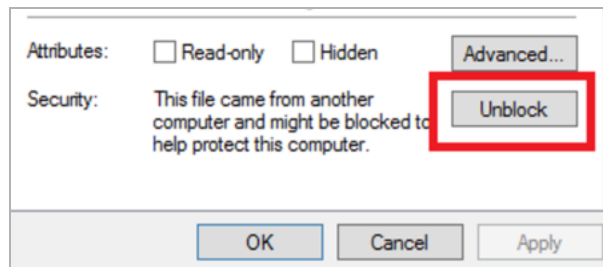
☒

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

2 Install the SCVMM Configuration Provider

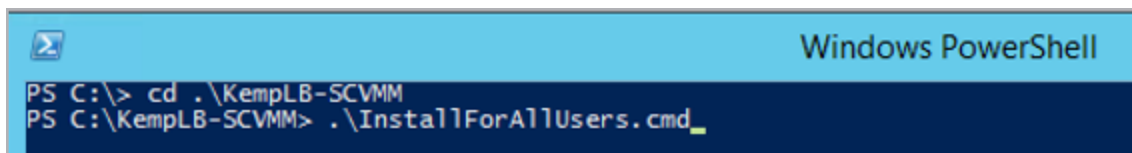
To install the SCVMM Configuration Provider, follow the steps below:

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



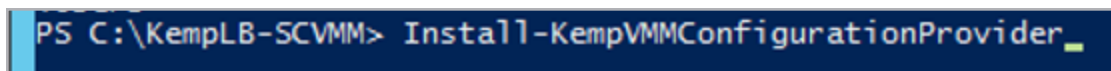
Before you extract the zip file, open the properties and click **Unblock** if necessary.

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



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

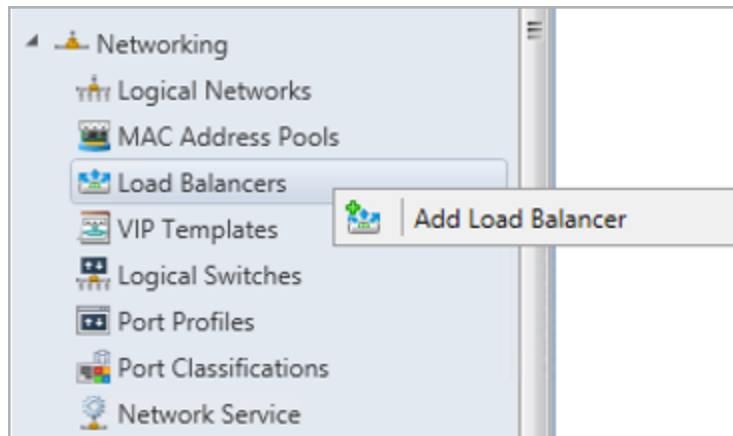
2 Install the SCVMM Configuration Provider

This will restart VMM services.

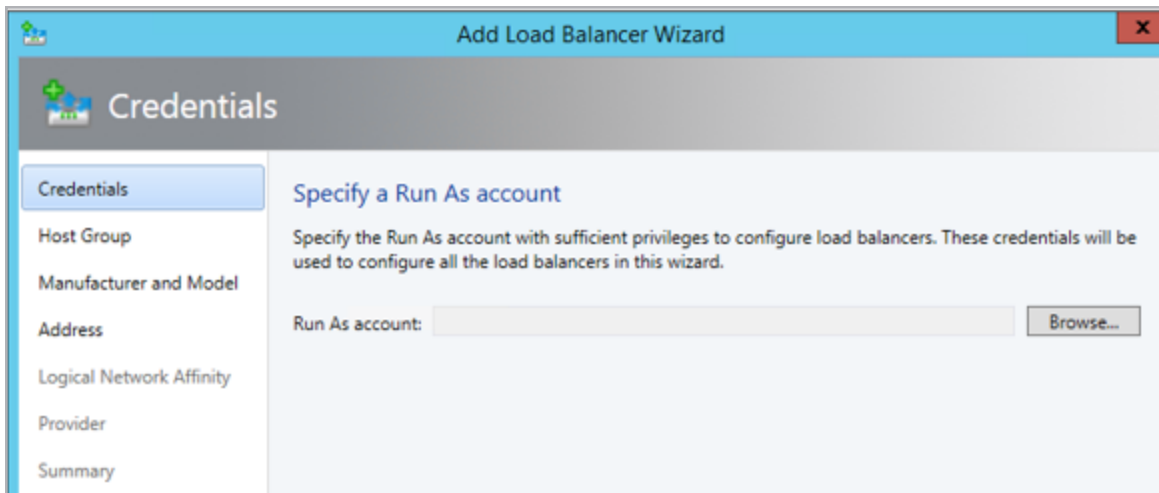
3 Add the Kemp LoadMaster to the SCVMM

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.

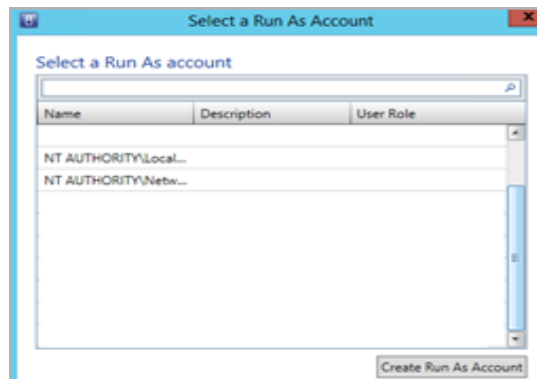


3. Add Load Balancer under Networking, right-click **Load Balancers** and select **Add Load Balancer**.

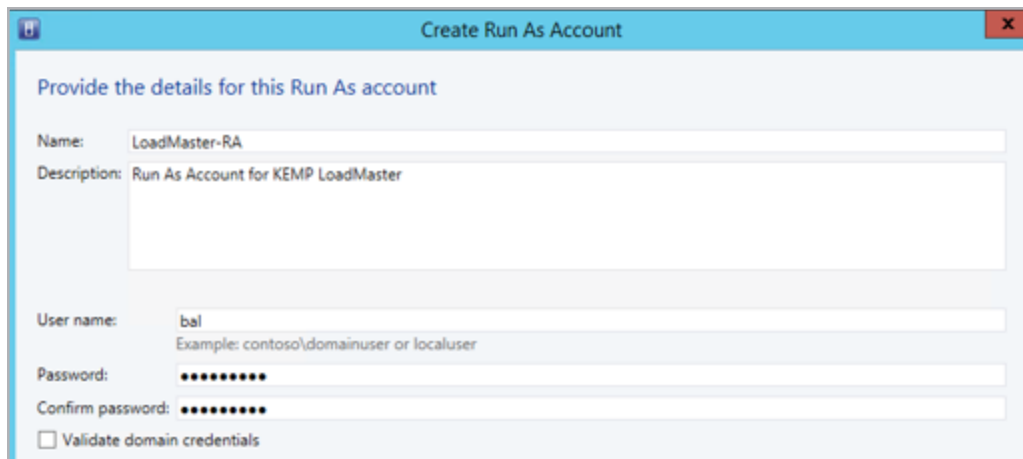


3 Add the Kemp LoadMaster to the SCVMM

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

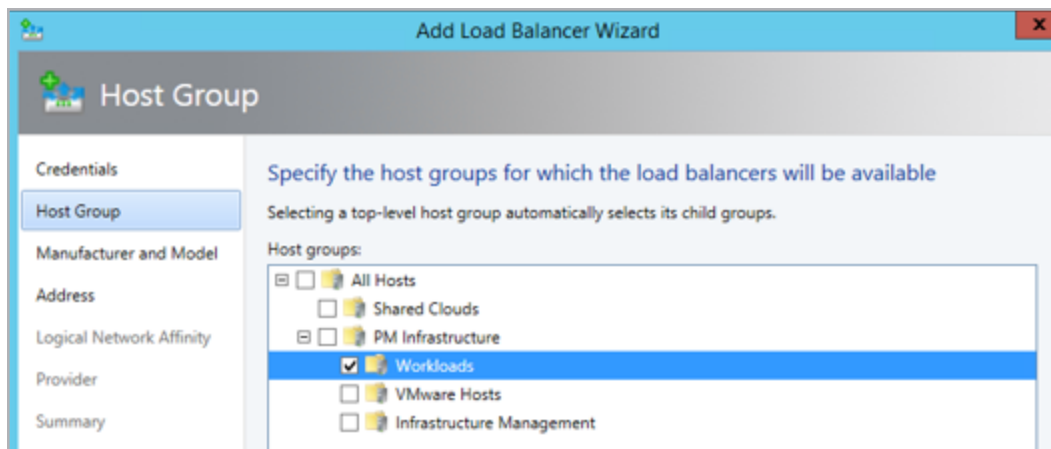
User name: bal
Example: contoso\domainuser or localuser

Password: [masked]

Confirm password: [masked]

☐ Validate domain credentials

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



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

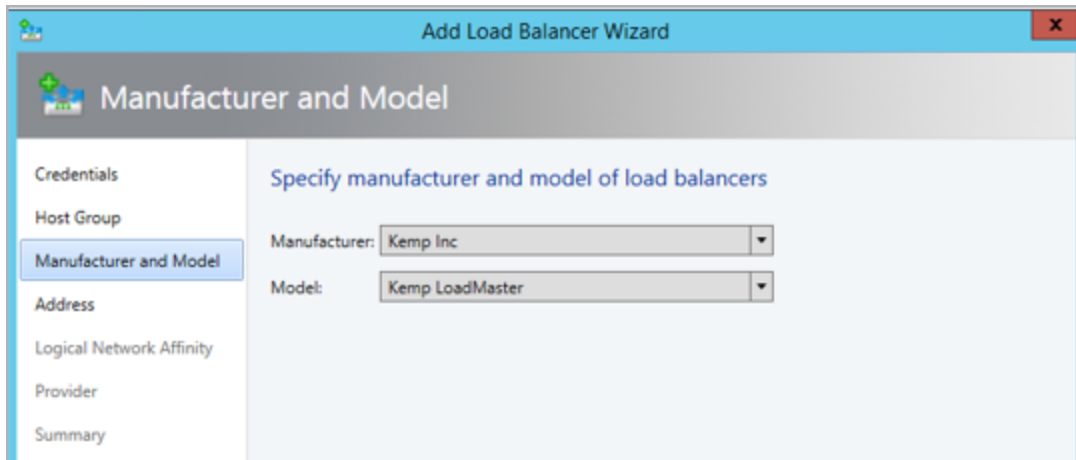
Selecting a top-level host group automatically selects its child groups.

Host groups:

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

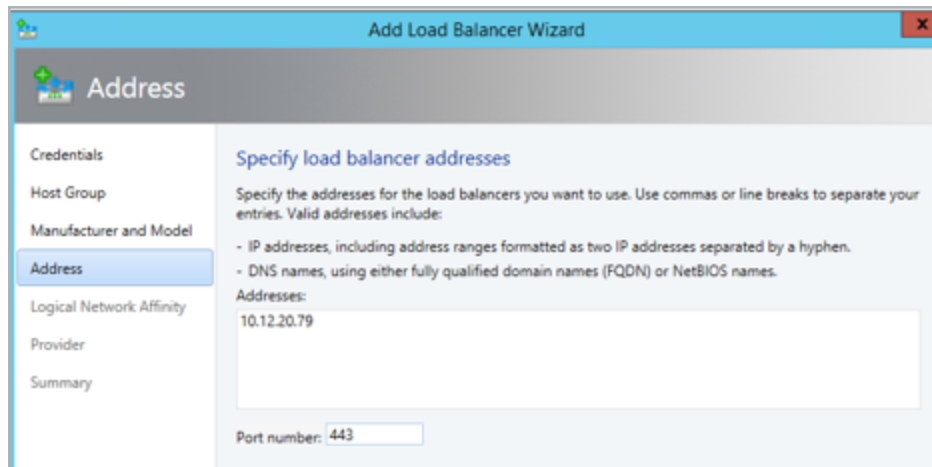
3 Add the Kemp LoadMaster to the SCVMM

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'.

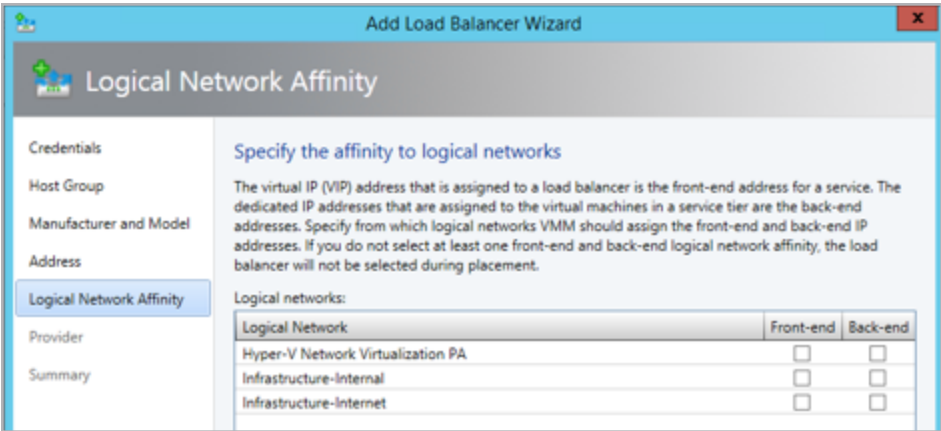
8. Ensure that **Kemp Inc** and **Kemp LoadMaster** are selected as the **Manufacturer** and **Model**.



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

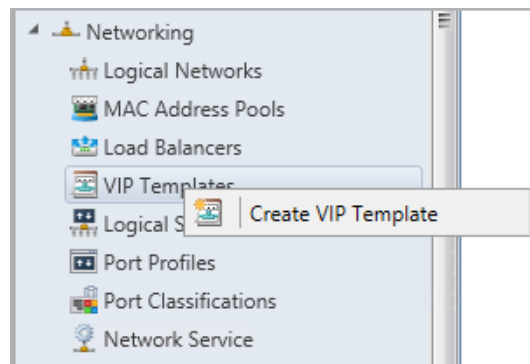
11. Click **Test** and confirm that all tests pass.

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.

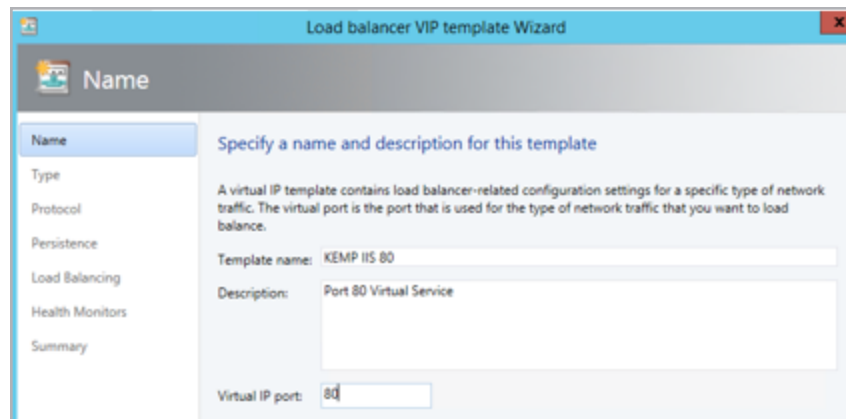
4 Add Virtual IP (VIP) Templates to the SCVMM

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

To create a VIP Template, follow the steps below:

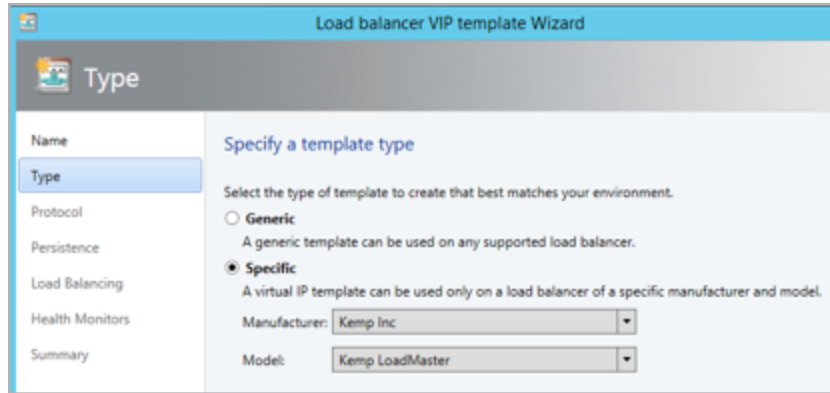


1. Under **Networking**, right-click **VIP Templates** and select **Create VIP Template**.

A screenshot of the 'Load balancer VIP template Wizard' dialog box. The 'Name' tab is selected, showing a list of tabs: Name, Type, Protocol, Persistence, Load Balancing, Health Monitors, and Summary. The main area is titled 'Specify a name and description for this template' and contains a text box for 'Template name' (KEMP IIS 80), a text box for 'Description' (Port 80 Virtual Service), and a text box for 'Virtual IP port' (80). A small text box explains: '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.'

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

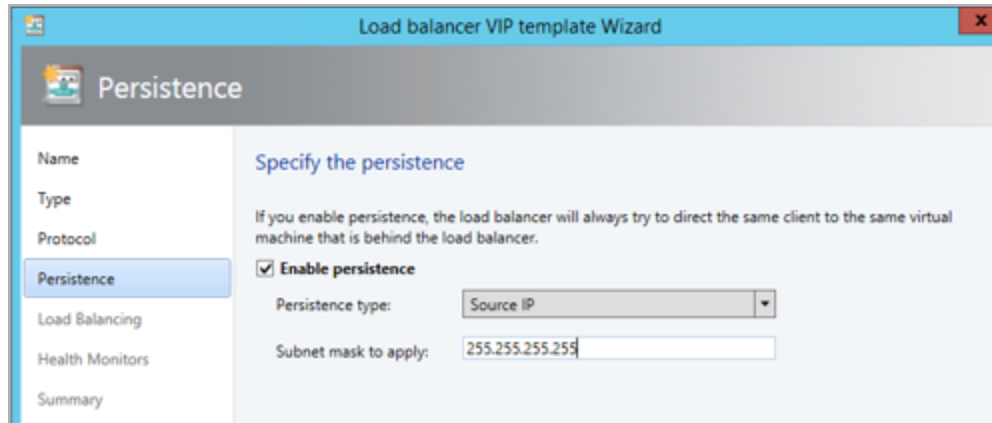
4 Add Virtual IP (VIP) Templates to the SCVMM



The screenshot shows the 'Type' screen of the 'Load balancer VIP template Wizard'. The left sidebar contains a list of steps: Name, Type (selected), Protocol, Persistence, Load Balancing, Health Monitors, and Summary. The main area is titled 'Specify a template type' and contains the following text: 'Select the type of template to create that best matches your environment.' There are two radio buttons: 'Generic' (unselected) and 'Specific' (selected). Below 'Generic' is the text: 'A generic template can be used on any supported load balancer.' Below 'Specific' is the text: 'A virtual IP template can be used only on a load balancer of a specific manufacturer and model.' There are two dropdown menus: 'Manufacturer:' with 'Kemp Inc' selected, and 'Model:' with 'Kemp LoadMaster' selected.

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

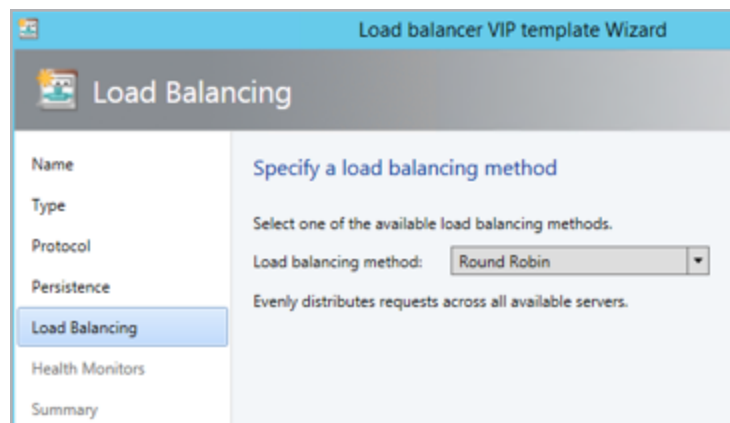
5. Select the relevant protocol option.



The screenshot shows the 'Persistence' screen of the 'Load balancer VIP template Wizard'. The left sidebar contains a list of steps: Name, Type, Protocol, Persistence (selected), Load Balancing, Health Monitors, and Summary. The main area is titled 'Specify the persistence' and contains the following text: '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.' There is a checkbox labeled 'Enable persistence' which is checked. Below it are two fields: 'Persistence type:' with a dropdown menu showing 'Source IP', and 'Subnet mask to apply:' with a text input field containing '255.255.255.255'.

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

Use only persistence types found under **Custom**



The screenshot shows the 'Load Balancing' screen of the 'Load balancer VIP template Wizard'. The left sidebar contains a list of steps: Name, Type, Protocol, Persistence, Load Balancing (selected), Health Monitors, and Summary. The main area is titled 'Specify a load balancing method' and contains the following text: 'Select one of the available load balancing methods.' There is a dropdown menu labeled 'Load balancing method:' with 'Round Robin' selected. Below it is the text: 'Evenly distributes requests across all available servers.'

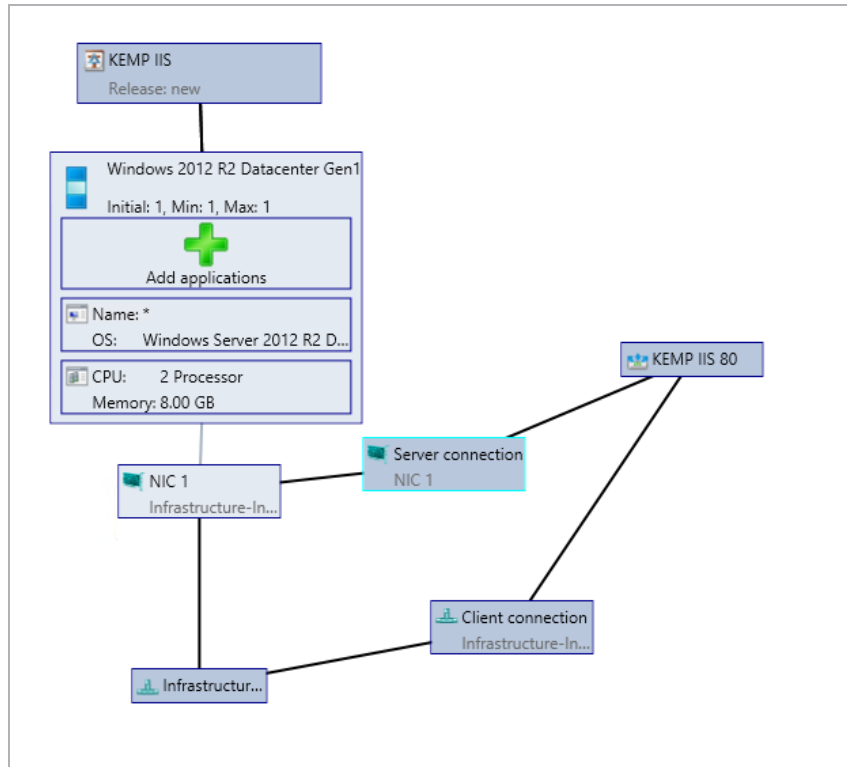
7. Select the relevant **Load balancing method**.

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

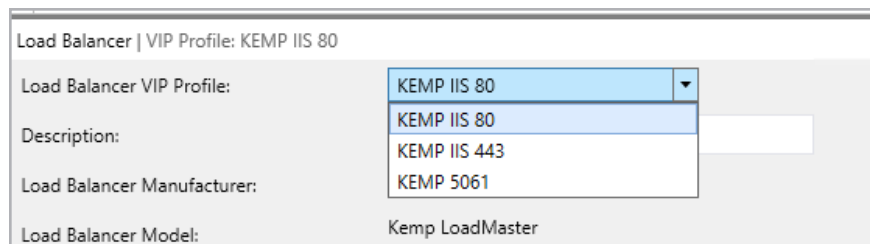
Health Monitors are optional and can be added later.

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 the 'Load Balancer' configuration window with the 'VIP Profile: KEMP IIS 80' selected. The 'Load Balancer VIP Profile' dropdown menu is open, showing the following options: KEMP IIS 80, KEMP IIS 80, KEMP IIS 443, and KEMP 5061. The 'Description' field is empty. The 'Load Balancer Manufacturer' field is empty. The 'Load Balancer Model' field is set to 'Kemp LoadMaster'.

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

Last Updated Date

This document was last updated on 27 July 2023.