

Deploy SQL Server 2012

ASM includes a default template that allows you to deploy SQL Server 2012. To configure the template, you must provide a valid Microsoft SQL Server 2012 ISO and then copy the location to the ASM virtual appliance.

Following are the steps to configure ASM virtual appliance:

1. Log in to ASM virtual appliance.
2. You must copy Microsoft SQL Server 2012 ISO to the `/var/lib/razor/repo-store/` directory.
3. Unpack Microsoft SQL Server 2012 ISO into CIFS share on the virtual appliance. To perform this task, run the following commands: `cd /var/lib/razor/repo-store mount -o loop <SQL2012>.iso/mntrsnc -a /mnt/ /var/lib/razor/repo-store/ SQL2012umount /mntrm SQL2012.iso`
4. Click **Templates-> Sample Templates**.
5. Click **Deploy SQL Server 2012-> Clone**.

The **Clone Template-Deploy SQL Server 2012** window is displayed.

6. In the **Clone Template-Deploy SQL Server 2012** window, edit the following:
 - a. Type a name in the **Template Name** field.
 - b. From the **Template Category** drop-down menu, select a template category. Select the **Create New Category** option if you want to create a new template category.
 - c. In the **Template Description** field, type description for the template.
 - d. To update the firmware and software while deploying a service using this template, select the **Manage Server Firmware/Software** check box and select a firmware and software repository from the **Use Firmware Repository** drop-down menu.

NOTE: Changing the firmware repository may update the firmware level on servers for this service. Firmware on shared devices is maintained by the global default firmware repository.
 - e. To grant access to standard users to use this templates, select the **Manage Service Permissions** check box, click any one of the following options:
 - i. **All Standard Users** — select this option to provide access to all standard users.
 - ii. **Specific Standard Users** — select this option to provide access to specific users. Click **+ Add User(s)** to add the users. To remove users added to list, select the user and click **Remove User(s)**.
 - f. Click **Next**.

The **Additional Settings** window is displayed.
 - g. Under **OS Settings**, do the following:
 - i. Type the **OS Administrator Password**.
 - ii. Select the new OS repository from the **Select New OS Repository** drop-down menu.
 - h. Under **Server Pool Settings**, select a new server pool from the **Select New Server Pool** drop-down menu.
 - i. Under **Network Settings**, select a new network from the **Select New Network** drop-down menu.
 - j. Click **Finish**.
7. On the **Template Builder** page, click the storage component and click **Edit**.

The **Storage Component** window is displayed.

8. Configure the following settings in the **Storage Component** window:
 - a. Under the **Basic Settings** section, edit the name in the **Component Name** field as required.
 - b. Under the **Associated Resources** section, select **Associate All Resources** or **Associate Selected Resources** to associate all or specific components to the new component.
 - c. Click **Continue**.
 - d. Under the **EqualLogic Storage Settings** section, select or type the following:
 - i. From the **Target EqualLogic** drop-down menu, select the target iSCSI array.
 - ii. From the **Storage Volume Name** list, select **Create New Volume**.
 - iii. Type a volume name in the **New Volume Name** field.
 - iv. Type the volume size in the **Storage Size** field.
 - v. Edit the values for **Storage Pool**, **Thin Provisioning**, **Snapshot Reserve %**, **Thin Min Reserve %**, **Thin growth Warning %**, **Thin growth Maximum %**, **Thin warning on threshold %**, **Thin warning on hard threshold %**, **Multi-Host access of volume**, **Authentication**, **Initiator IQN or IP Addresses**.
 - vi. Click **Save**.
9. On the **Template Builder** page, click the server component and click **Edit**.

The **Server Component** window is displayed. Configure the following settings in the **Server Component** window:

 - a. Under the **Basic Settings** section, edit the name in the **Component Name** field as required.
 - b. Under the **Associated Resources** section, select **Associate All Resources** or **Associate Selected Resources** to associate all or specific components to the new component.
 - c. Click **Continue**.
 - d. Select any one of the following:
 - i. **Import Configuration from Reference Server** — select to import the configuration from an existing server.
 - ii. **Import from Existing Template** — select to import the configuration from a server component in an existing template.
 - iii. **Upload Server Configuration Profile** — select this option to configure the component based on a configuration profile available on the system.
 - e. Under **OS Settings**, configure the following:
 - i. If you select the **Auto-generate Host Name** check box, a **Host Name Template** field is displayed.
In the **Host Name Template** box, type the unique host name for deployment.
 - ii. From the **OS Image** drop-down menu, select the OS image.
 - iii. Edit the **Administrator Password**.
 - iv. In the **NTP Server** box, specify the IP address of the NTP server for time synchronization.
If you want to add more than one NTP server in the OS section of a server component, make sure to separate the IP addresses using comma (,).

- v. From the **Select iSCSI Initiator** drop-down menu, select the iSCSI initiator.
 - vi. From the **Install EqualLogic MEM** drop-down menu, select **True** or **False**.
If the value is *true*, install EqualLogic Multipathing Extension Module.
 - vii. Enable or disable the local storage for VMware vSAN by selecting or clearing the **Local storage for VMware vSAN** check box.
 - f. Under the **Hardware Settings** section, select the following:
 - i. **Target Boot Device** — select the boot device such as local hard drive or SD card from the drop-down menu.
 - ii. **Server Pool** — select the pool from which the servers are selected during deployment.
 - g. Under the **BIOS Settings** section, select the following:
 - i. **System Profile** — select the system power and performance profile for the server.
 - ii. **User Accessible USB Ports** — select the server ports that are accessible by the user.
 - iii. **Number of Cores per Processor** — select the number of enabled cores per processor.
 - iv. **Virtualization Technology** — select **Enabled** to enable the additional hardware capabilities provided by virtualization technology.
 - v. **Logical Processor** — each processor core supports up to two logical processors. If set to **Enabled**, the BIOS reports all logical processors. If set to **Disabled**, the BIOS reports only one logical processor per core.
 - vi. **Execute Disable** — allows you to enable or disable the Execute Disable bit.
 - vii. **Node Interleaving** — if the system is configured with matching memory, set the option to **Enabled**. If set to **Disabled**, the system supports non-uniform memory architecture memory configurations.
 - h. Under the **Network Settings** section, select the following:
 - i. **Add New Interface** — Click to create an interface based on the specified the **Fabric Type**, **Port Layout**, **Partitioning**, and **Redundancy**.
 - ii. **Identity Pool** — Select the pool from which the virtual identities must be selected during deployment.
 - i. Click **Save**.
10. On the **Template Builder** page, select **cluster component**, click **Edit**.
The **cluster component** window is displayed
11. Configure the following settings in the **Cluster Component** window:
- a. Under the **Basic Settings** section, edit the name in the **Component Name** field as required.
 - b. Under the **Associated Resources** section, select **Associate All Resources** or **Associate Selected Resources** to associate all or specific components to the new component.
 - c. Click **Continue**.

- d. Under **Cluster Settings**, configure the following:
 - i. From the **Target Virtual Machine Manager** drop-down list, make sure that you select virtual machine manager.
 - ii. Select the data center name from the **Data Center Name** drop-down menu.
 - iii. Type the new data center name in the **New data center name** box.
 - iv. Select one of the following **Switch Type**:
 - **Distributed**
 - **Standard**
 - v. Enable or disable the highly available cluster (HA) by selecting or clearing the **Cluster HA Enabled** check box.
 - vi. Enable or disable the distributed resource scheduler (DRS) by selecting or clearing the **Cluster DRS Enabled** check box.
 - vii. Enable or disable the VMware vSAN by selecting or clearing the **Enable VMware vSAN** check box.
 - viii. Enable or disable the Storage DRS by selecting or clearing the **Storage DRS Enabled** check box.
 If **Storage DRS** is set to enabled, do the following:
 - I. Type the storage POD name in the **Storage Cluster Name** box.
 - II. Select data stores to add data center.
 - ix. Click **Save**.
2. On the **Template Builder** page, click virtual machine and then click **Edit**.
 The **Virtual Machine Component** window is displayed
3. Configure the following settings in the **Virtual Machine Component** window:
 - a. Under the **Basic Settings** section, edit the name in the **Component Name** field as required.
 - b. Under the **Associated Resources** section, select **Associate All Resources** or **Associate Selected Resources** to associate all or specific components to the new component.
 - c. Click **Continue**.
 - d. Under **Virtual Machine OS Settings**, configure the following:
 - i. If you select the **Auto-generate Host Name** check box, a **Host Name Template** field is displayed.
 In the **Host Name Template** field, type unique host name for deployment.
 - ii. From the **OS Image** drop-down menu, select the OS image.
 - iii. Edit the **Administrator Password**.
 - e. Under **Virtual Machine Settings**, configure the following:
 - i. In the **Number of CPUs** box, type the number of CPUs.
 - ii. In the **Virtual Disk(s)** box, specifies the size to allocate for virtual machine hard disk.
 - iii. In the **Memory in MB** box, type the memory specified while configuring a virtual machine.

- iv. Set the virtual machine network or set static networks already created in ASM as workload networks for the virtual machines.
 - v. Set the default gateway for the static network selected.
 - f. Click **Save**.
- 12. Click **Publish Template**.
Template is ready to be deployed.