Deploy VMware Cluster with iSCSI Storage Using Software Initiator

To deploy VMware Cluster with iSCSI Storage Using Software Initiator using this template, perform the following:

1. Log in to the Active System Manager interface.
2. Click **Templates-> Sample Templates**.
3. Click **Deploy VMware Cluster with iSCSI Storage Using Software Initiator** -> **Clone**.
   The **Clone Template** -**VMware Cluster with iSCSI Storage Using Software Initiator** window is displayed.
4. In the **Clone Template -VMware Cluster with iSCSI Storage Using Software Initiator** 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 a description for the template.
   d. To update the firmware and software while deploying a service using this template, select the **Manage Server Firmware or Software** check box and select a firmware and software repository from the **Use Firmware/Software 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 any one of the following options from the **Manage Service Permissions** option**:**
      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 **Server Pool Settings**, select a new server pool from the **Select New Server Pool** drop-down menu.
   h. Click **Finish**.
5. On the **Template Builder** page, click the storage component, click **Edit** and configure the following settings in the **Storage Component** window:

6. 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**.
7. On the **Template Builder** page, click the server component and click **Edit** to configure the components.
   The **Server Component** window is displayed.
8. On the **Server Component** window, configure the following options:
   a. Modify the **Component Name** with a unique name, if necessary.
   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 **Hardware Settings**, configure the following:
      i. Retain the default selection of **Local Hard Drive** for **Target Boot Device**.
      ii. Select a **Server Pool** that contains a target server from the drop-down list.
      iii. Configure RAID. The following two options are available to configure RAID level:
         - **Basic**
         - **Advanced**
   f. 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 **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** for the ESXi host.
      iv. Type the IP address of the NTP Server for time synchronization.
      v. From the **Select iSCSI Initiator** drop-down menu, select **Software Initiator**.

g. Under **Network Settings**, configure the following:
  i. Leave the **Identify Pool** drop-down menu set to **Global** pool.
  ii. Click **Add New Interface** option to create a network interface in a template server component.
  For more information on **Adding New Interface**, see **Add New Interface** section in *User's Guide*.
  iii. Configure **Partitioning** and **Redundancy** according to the needs of your environment.
  iv. Add ASM Networks as required for VMware deployments, for example Hypervisor Management, Hypervisor Migration, and Public or Private networks.

h. 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.
i. Click **Save**.
2. On the **Template Builder** page, select the **VMware cluster** component, click **Edit**.
The **cluster component** window is displayed
3. 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**.
4.   Click **Publish Template**.
   Template is ready to be deployed.