Deploy Hyper-V Cluster with Fibre Channel Storage to SCVMM

The Deploy Hyper-V Cluster with Fibre Channel Storage to SCVMM template deploys two Fibre Channel storage volumes, installs Hyper-V on two physical hosts, and creates a cluster with the Hyper-V hosts.

Following are the steps to deploy Hyper-V Cluster with Fibre Channel Storage to SCVMM:

1. Log in to the Active System Manager interface.
2. Click **Templates-> Sample Templates**.
3. Click **Deploy Hyper-V Cluster with Fiber Channel Storage To SCVMM**-> **Clone**.
   The **Clone Template-Deploy Hyper-V Cluster with Fiber Channel Storage to SCVMM** window is displayed.
4. In the **Clone Template-Deploy Hyper-V Cluster with Fiber Channel Storage to SCVMM** 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 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 the **Manage Service Permissions** check box and 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. Click **Finish**.
5. On the **Template Builder** page, click the storage component and click **Edit.**
   The **Storage Component** window is displayed.

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 **Compellent Storage Settings** section, select or enter the following:
        i. From the **Target Compellent** drop-down menu, select the device where the volume is created.
        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. Select the **Boot Volume** option if you want to designate the mapped volume as a boot volume.
        vi. Type the name of the folder where the volume must be created in the **Volume Folder** field.
        vii. From the **Purge Volume** drop-down menu, select **Yes** or **No** to indicate if the volume must be purged. If the purge option is not specified, the volume is still visible using the volume show command and status is displayed as Recycled.
        viii. Type the volume notes if required in the **Volume Notes** field.
        ix. Type the replay profile for the volume in the **Replay Profile** field.
        x. Type the name for the storage profile in the **Storage Profile Name** field.
        xi. Type the associated server notes in the **Server Notes** field.
        xii. Select the host operating system from the **Operating System Name** drop-down menu.
        xiii. Type the globally unique World Wide Name (WWN) for the requested HBA in the **Server WWN Values** field.
        xiv. Select the transport type for the added HBAs from the **Port Type** drop-down menu. This option is required if the **Manual** option is selected. The possible values are **FibreChannel** and **iSCSI**. For iSCSI Compellent, set the port type to **iSCSI**.
        xv. Select the **Manual** option to configure the requested HBAs before the HBAs are discovered. If the WWN matches a known server port, this flag is ignored. If this **Manual** option is selected, ensure that the **Port Type** is specified.
        xvi. Select the **Force Map** check box to force mapping even if mapping already exists.
        xvii. Select the **Single Path Map** check box, to specify that only a single local port must be used for mapping. If this option is not selected, all the local ports are used for mapping.
        xviii. Select **Configure SAN Switch** option to enable zone configuration on a Brocade FC SAN switch.

e. Click **Save**.

a. On the **Template Builder** page, click the server component, click **Edit**, and then configure the following:
b. Modify the name of the component in the **Component Name** field if required.
c. Under the **Associated Resources** section, select **Associate All Resources** or **Associate Selected Resources** to associate all or specific components to the new component.
d. Click **Continue**.
e. 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.
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 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**.
g. Under **Hardware Settings**, configure the following:
    i. Retain the default value in the **Target Boot Device** option.
    Local Hard Drive is the default value.
    ii. Select a **Server Pool** that contains a target server from the drop-down menu.
    iii. Configure RAID. The following two options are available to configure RAID level:
        - **Basic**
        - **Advanced**

    For more information on **RAID Configuration**, see the **Server Settings** section in the *User's Guide*.
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. 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.
j. Click **Save**.

7. On the **Template Builder** page, click the **Hyper-V Cluster** component, click **Edit**, and then configure the following settings in the Cluster Component dialog box:
   a. Modify the name of the component in the **Component Name** field if 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 your target SCVMM.
      ii. From the **Host Group** drop-down list, select an existing host group, or in the **New host group name** box and type the name of the host group that you want to create.
      iii. From the **Cluster Name** drop-down list, select **New Cluster** and then in the **New Cluster name** box, type an updated name for the cluster that will be created in SCVMM.
      iv. Type the cluster IP address in the **Cluster IP Address** field.
      v. Click **Save**.
8. Click **Publish Template**.

This template is now ready to be deployed.