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XenDesktop Service Template

XenDesktop 7.1 Service Template Technology Preview for System Center – Virtual Machine Manager

The Citrix XenDesktop System Center - Virtual Machine Manager (VMM) Service Template provides administrators with a reproducible and consistent method to deploy XenDesktop infrastructure components.

The Service Template uses the VMM service model deployment to provision machines, install XenDesktop server roles, and perform the initial configuration of a new XenDesktop Site, making it useful for simple proof of concept deployments or larger deployments that require scaling-out for added capacity.

How it works

The Service Template is a feature introduced in VMM 2012. It supports modeling and managing a distributed enterprise application as a unit rather than as individual machines.

After importing a Service Template into a VMM Library, a VMM Cloud User, Delegated Administrator, or Administrator can provision the entire XenDesktop infrastructure by deploying a single template. This template instantiates and configures the various server roles of a XenDesktop deployment.

When you need additional capacity to support additional desktops, the Service owner can scale out the necessary tier that is provisioned and configured in the XenDesktop Site.

XenDesktop Service Template system requirements

The XenDesktop Service Templates are available in an Evaluation and Enterprise version.

The Evaluation template creates a minimal proof of concept deployment of StoreFront and a Controller. This template is not designed to support scaling-out of any server roles.

The Enterprise template creates a scaled-out deployment of individual machines for the Controller, StoreFront, License Server, and Director server roles. Both the Controller and StoreFront roles support scaling out.

The minimum environment for the Evaluation template:
- XenDesktop 7.1 Service Template
- Server 2012 Evaluation VHD
- VMM 2012 SP1 Server, Library, and a VM Network with a static IP Pool.
- Hyper-V Servers.

- Active Directory

The minimum environment for the Enterprise template:
- XenDesktop 7.1 Service Template
- Server 2012 Evaluation VHD
- VMM 2012 SP1 Server, Library, and a VM Network with a static IP Pool.
- Hyper-V Servers.
- Active Directory
- SQL Server

Software	Description
VMM 2012 SP1 UR3 or later.	VMM 2012 SP1 must be patched with Update Rollup 3 or later for successful deployment. VMM 2012 R2 is supported.
Hyper-V Server or Windows Server with Hyper-V	Windows Server with Hyper-V provides the greatest support for Service Templates and support deployment into DMZ and disconnected network scenarios. Hyper-V Server only supports deploying into environments where the deployed virtual machines (VMs) have network connectivity to the VMM Library. The hypervisor must have adequate storage to support the deployed VMs.
VMM Configuration	Description
Cloud or Host Group	The Self Service user, Delegated Administrator or Administrator in VMM require an associated Cloud or Host group to which machines are deployed.
VM Network	There must be one VM Network defined in VMM: Management traffic - The management VM Network requires a static IP Pool for VMM to manage the IP addresses of the virtual machines, and must have access to Active Directory, DNS, and SQL services.

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Server 2012 VHD Image	A VHD image of Server 2012 or Server 2012 R2 that is prepared with sysprep and stored in the VMM Library. This can be the Windows Server 2012 Evaluation VHD or can be prepared by the administrator. **Note**: Antivirus agents installed in the base image may interfere with the automated deployment and configuration.
VMM installation media ISO image (optional)	An ISO image of the VMM installation media stored in the VMM Library. This is required for integration configuration between XenDesktop and VMM. **Note**: If this is not provided; integration with SCVMM will not be performed.
VMM RunAs accounts	XenDesktop Administrator - This is a domain user account that is configured as the first administrator for the XenDesktop deployment and needs to join computers to the domain. Local Administrator (*.\administrator*) -This account sets the local administrator password. SQL Logon - This is a domain user account that creates the SQL Database for XenDesktop Controller servers. It requires SQL dbcreator, securityadmin permissions.
Supporting Infrastructure	**Description**
Active Directory Domain and DNS	The XenDesktop requires domain membership and Kerberos authentication for security and DNS for machine name resolution. This domain must be accessible by VMs over the management VM Network.
SQL Server / SQL Server Instance	XenDesktop requires a SQL Server database for management databases. **Note:** The Evaluation template uses SQL Express instead of SQL Server. And does not prompt for or require a SQL Administrator or database.

VMM Server	In large desktop environments, there may be an instance of VMM dedicated to managing desktops. The user account needs to be a VMM Delegated Administrator or Administrator.

Before you begin

Check the configuration of your VMM Server, the Hyper-V Servers, the RunAs accounts, and the VMM Users to make sure that configuration is correct.
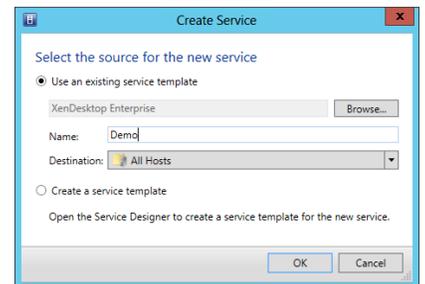
Import the Service Template

1. Unzip the downloaded package to a folder.
2. Select a destination and extract files.
3. From the Library view in VMM, select **Import Template** from the Ribbon.
4. Browse to the folder to which the package was extracted and select the XML file at the top of the folder structure.
5. Select the option to Import Sensitive Template Settings.
6. Select the VHD and ISO objects in the VMM Library by clicking on the pencil icon and then browsing to the existing objects in the VMM Library.
7. Select the destination in the VMM Library (the objects in the package are copied to and registered with the VMM Library).
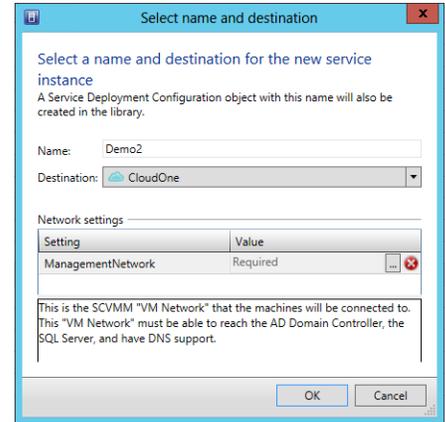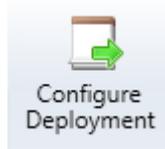8. Complete the import.
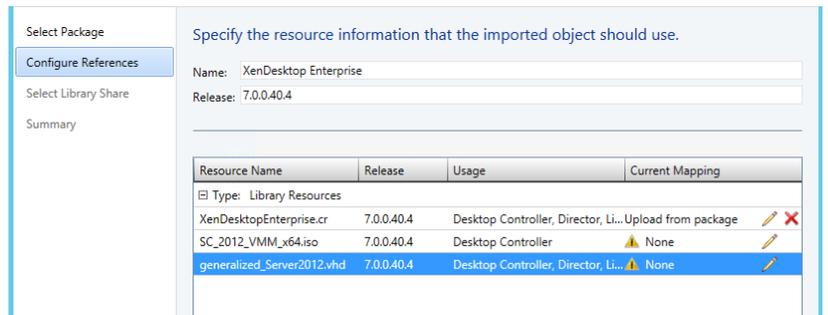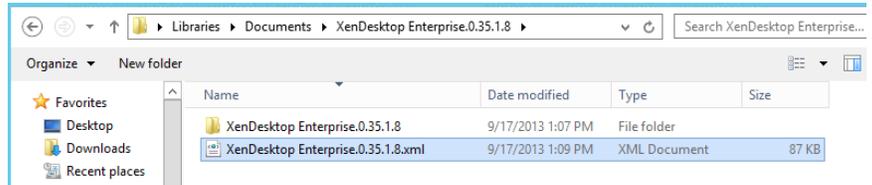
Deploy the XenDesktop Service Template

You can deploy a Service instance by either:
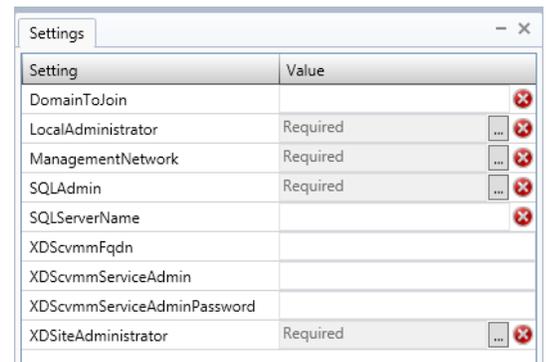
   o Selecting **Create Service** from the VMs and Service view.

o   Selecting a **Service Template** from the Library view and then select **Configure Deployment** in the ribbon.

1.   Name the Service (This will be the name of the XenDesktop Site.)

2.   Complete the Service settings.

The following table describes the Service settings fields.

Service Settings	Description
DomainToJoin	Enter the fully qualified domain name that the XenDesktop service machines will join.
LocalAdministrator	Select the Run As Account that sets the local administrator password of the virtual machines in the XenDesktop service. The local administrator Run As Account user name must be **.\Administrator**. Make sure to uncheck the option that validates the domain credentials when creating this account.
ManagementNetwork	Select the VM Network the XenDesktop service virtual machines that is used to management traffic. The management VM Network requires a supporting IP Pool for manual IP address assignment by VMM, and must have access to Active Directory, DNS, and SQL services.

SQLAdmin	Select the Run As Account that is used to create the XenDesktop databases. For more information on the XenDesktop database access and permission model, see http://support.citrix.com/article/CTX127998.
SQLServerName	Enter the name of the SQL Server that hosts the XenDesktop databases. Enter the *SQLServerName\InstanceName* to use a specific SQL instance or enter only the SQLServerName to use the default SQL instance.
XDScvmmFqdn (optional)	Enter the Fully Qualified Domain Name of the VMM server that XenDesktop integrates with to deploy and manage desktops.
XDScvmmServiceAdmin (optional)	Enter the VMM integration administrator account (*Domain\Username*) that XenDesktop uses to create and manage desktops. This account must have administrator privilege on the VMM server.
XDScvmmServiceAdminPassword (optional)	Enter the password for the VMM integration administrator account that XenDesktop uses to create and manage desktops.
XDSiteAdministrator	Select the Run As Account that installs and configures XenDesktop as well as becoming the first XenDesktop Site Administrator. After deployment, use these credentials to access the XenDesktop Controller virtual machine and run Desktop Studio to begin publishing desktops.

9. Select **Refresh Preview** in the Ribbon to place the machines in the Service using the VMM VM Placement logic.
10. Resolve any VMM placement errors.

To view detailed information about placement issues, select the Machine instance in the diagram and then select **Ratings** in the Ribbon.

11. After resolving all VMM placement issues, select **Deploy Service** in the Ribbon.

VMM deploys virtual machines for each role, and the XenDesktop software is installed and configured.

Review the VMM Job log or the Status of the Properties of the individual virtual machine to review any deployment errors.

After Service Deployment

After the Service has successfully deployed;

1. Open the console of the Controller virtual machine
2. Logon using the same credentials as the XDSiteAdministrator Run As account
3. Open the Studio Console
4. Continue with creating catalogs and delivering desktops. See the [XenDesktop Administration Guide](#).

Hotfix management

When hotfixes are required, Administrators can manually install the hotfix into the machines of an existing Service. XenDesktop hotfixes can also be copied to the folder that corresponds to the Tier's role in the deployment.

1. Within the VMM Library, open the Folder location of the XenDesktop Custom Resource.
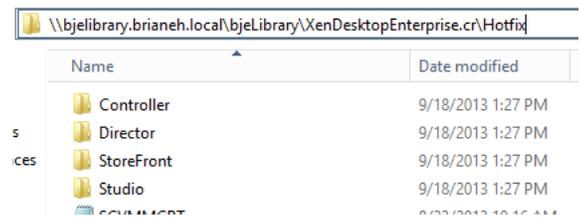
2. Within the Hotfix folder, copy the hotfixes to the appropriate folders. For example, copy hotfixes that apply to the Controller to the Controller folder, and the Director hotfix to the Director folder.

3. Deploy new Tier instances or a new Service to apply the hotfixes as the new Tier instances or Services are provisioned.

Known issues

- VMM 2012 SP1 does not properly increment VM names when deploying additional Services or when scaling out Tiers. Two workarounds are:
  - When using the Scale Out Tier Wizard; at the Configure Settings screen, the machine name for a Tier may match a machine already deployed. If it matches; cancel the Scale Out Tier Wizard and try to scale out the tier again.
  - If deploying a second Service from the Service Template, at the Deploy Service map screen, the machine name for a Tier may match a machine already deployed. Select the machines in the diagram view and edit the VM name and Computer name prior to selecting Deploy Service.
- Additional StoreFront Servers that are created from using the VMM Scale-Out feature should be manually load balanced as described in http://support.citrix.com/proddocs/topic/dws-storefront-20/dws-configure-server-group.html or configured as standalone instances in Studio.
- If attempting to reuse the computername for an instance of StoreFront/Controller that was previously deployed, configured, and then deleted, delete the Computer name from Studio configuration to avoid an error with the Scale-Out process.
- Renaming the Site of a Service causes Role scale-out or Servicing to fail. Do not rename the Site.
- VMM does not support deploying a Service to Hyper-V Server when the virtual machine network is unable to reach the VMM Library. In this isolated scenario, the target hypervisor must be Server 2012 with the Hyper-V Role (Full or Core installation) and not the free Hyper-V Server.

- The Evaluation template does not support scaling out Roles.
- Multiple License Servers are not supported.
- Scaling out Director is not supported.
- High disk IO on target hypervisors or storage can cause the VMM jobs to time out. Retry the job to allow the process to continue.

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