



Cumulative Change Summary	Date
1.0 release	Apr 18, 2016
Added direct link to VMware download site for Virtual Infrastructure eXtension (VIX) in Prerequisites	Apr 21, 2016
1.1 release	Jun 28, 2016
Added information regarding SANsymphony 10.0 Release Notes	Jul 8, 2016
Updated SANsymphony version	Aug 24, 2016
1.6 release	Nov 3, 2016
1.6.4 release	Apr 25, 2017
1.6.5 release	Aug 7, 2017

## Release Notes

# DataCore Deployment Wizard For vSphere 1.6.5

This document includes the following sections:

<b>Overview</b>	Basic overview
<b>Configuration Notes</b>	Important configuration notes for this release
<b>Installation Instructions</b>	Steps for installing
<b>Known Issues</b>	A list of known issues and possible workarounds
<b>Enhancements and Fixes</b>	A list of enhancements and fixes in this release

## Overview

The DataCore Deployment Wizard for vSphere automates and simplifies the creation and configuration of a virtual machine running SANsymphony software on one or more ESXi hosts in a vSphere environment, such as a Hyperconverged Virtual SAN environment. The deployment process will create the virtual machine according to specifications on each selected ESXi host, install the Windows operating system, VMware tools, and SANsymphony software, create ports and define port roles, add all DataCore Servers that were created to the same DataCore server group, and register the vCenter in SANsymphony.

## Configuration Notes

### Download Package

Included in the self-extracting, executable download package (HyperconvergedVirtualSANforvSphere.exe) are:

- The DataCore Deployment Wizard for vSphere
- The SANsymphony software installation executable (PSP6)
- The DataCore Deployment Wizard for vSphere User's Guide
- Release Notes for the DataCore Deployment Wizard for vSphere (this document)

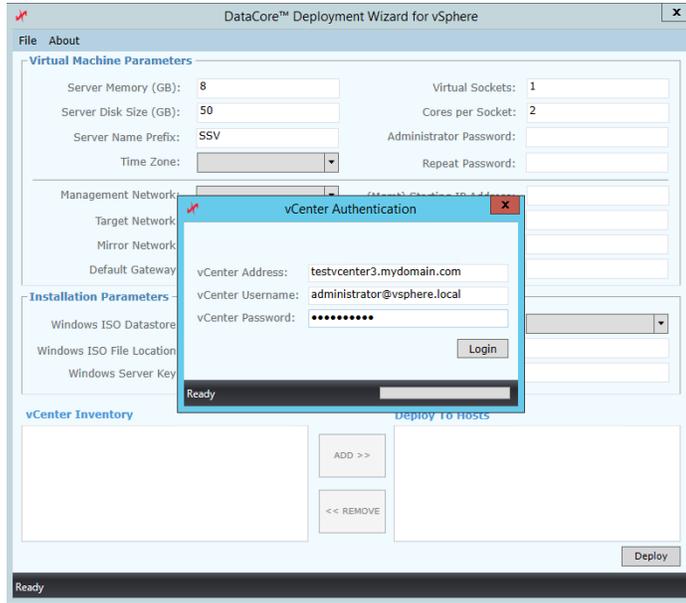
Note: For detailed release information on SANsymphony 10.0, see the SANsymphony 10.0 Release Notes found on the download site.

## Prerequisites and Configuration Notes

- A VMware vSphere environment with vCenter Server, ESXi hosts, networks, and datastores.
  - vCenter Server versions 5.5, 6.0 and 6.5 are supported.
  - The vCenter Server must have SSO (Single Sign On) enabled and will be connected to in order to manage the deployment process.
  - A shared datastore must be present on all ESXi hosts on which DataCore Servers will be created. The datastore will be used to store an ISO image of the Windows operating system which will be used during the deployment process. The datastore should be a minimum of 10 GB in order to accommodate the image. The shared datastore can be made with an NFS mount point or via an iSCSI or Fibre Channel target.
  - A **Windows Server 2012 R2 or 2016 ISO installation image** must be present on the shared datastore, and a valid Windows license will be needed for each Hyperconverged virtual SAN instance that will be deployed.
  - The SANSymphony software executable file included in the package will be used to create an ISO image and store it temporarily on a shared datastore where it will be used during the deployment process.
  - A datastore on each ESXi server with enough space to install SANSymphony software on the virtual machine. A minimum size of 50 GB is required. This datastore should be visible only to one ESXi host in the datacenter.
- The DataCore Deployment Wizard for vSphere can be run from any machine that can connect to the vCenter Server.
  - Supported operating systems for this machine are Microsoft **Windows Server 2012, 2012 R2, 2016**.
  - **VMware VIX API for Windows 64-bit operation systems (Version 1.14.2.X)** must be previously installed before running the wizard. Login to the VMware support site and download [here](#).
  - **Microsoft Windows .NET 4.6.1** must be installed.
  - Access to the vCenter address must be provided by logging in with vCenter administrator account credentials (IP address or fully qualified domain name) and the port to use for installation must be specified at login. The port must be unblocked by firewalls.
  - The Administrator password provided in the DataCore Deployment Wizard for vSphere for virtual SAN nodes must adhere to the Microsoft's Windows password complexity requirements.
- During the SANSymphony software installation, some additional firewall ports will be opened for SANSymphony software to function properly on the virtual machine. See Windows Security Settings Disclosure in the DataCore Deployment Wizard for vSphere User's Guide for more information. If using network firewalls, ensure access to the required ports is provided.
- Networks must be configured in the vSphere environment for DataCore Server management, storage mirroring, and target (front-end) functions. The networks for these port groups will be selected in the wizard. The management port group is used for SANSymphony software management communications—which is the network (TCP/IP) through which DataCore Servers communicate status with one another and connect with the SANSymphony Management Console. The mirroring port group provides iSCSI target and initiator between DataCore Servers for mirrors. The target port group provides iSCSI targets on DataCore Servers for front-end paths. While it is possible for port groups to share function, it is highly recommended to configure dedicated port groups for each function (per vCenter datacenter) to maximize performance and availability.
- Each virtual machine will be created with one management port, two target ports, and one mirror port in the deployment process. (An additional DHCP legacy port is also created temporarily for use during installation and then removed.) The starting IP address to use for each port group type is required in the wizard. Ensure that a sufficient number of ports with static IP addresses are available to accommodate the total number of ports required for all virtual machines to be created. The IP addresses must be available and will be pinged during validation by the wizard to ensure a sufficient number of IP addresses are available. The IP addresses for management, mirroring and targets cannot overlap or the virtual machine deployment will not proceed. After installation, additional ports may be added if needed.
- When deploying a DataCore HyperConverged virtual SAN, the wizard automatically configures certain parameters on the DataCore Servers per the iSCSI best practices (see [FAQ 1626](#)):
  - Changes the TcpAckFrequency registry key – “Disable Delay ACK” section
  - Changes the TcpNoDelay registry key – “Nagle's algorithm” section
  - Creates a new transport filter – “TCP Global Settings” section, New-NetTransportFilter settings

## Installation Instructions

- 1) Copy the DataCore Deployment Wizard for vSphere executable (HyperConvergedVirtualSANforvSphere.exe) to any machine that can connect to the vCenter Server. A shortcut (DataCoreDeploymentWizardforvSphere) will be created on the desktop. Double-click the shortcut to start the wizard. Accept the terms of the license agreement to continue.
- 2) In the **vCenter Authentication** dialog box, enter the fully-qualified vCenter address. The default port used to connect is 7444 and will automatically be used. To use a different port number, append a colon and manually add the new port number to the address (for example, vcenter01.mydomain.com:1234). Enter the username and password for the vCenter administrator account. Click **Login** to start the wizard.



- 3) For information on using the wizard to create and configure virtual machines running SANsymphony software on one or more ESXi hosts in a vSphere environment, see the **DataCore Deployment Wizard For vSphere User's Guide**. This guide may be accessed by clicking the **Help** button and can be found in the **DataCore/DeploymentWizardforvSphere** folder created during installation.

## Known Issues

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- **Mirror ports on Virtual Machines:** It is recommended that a second mirror port be configured in each virtual machine after installation for high availability.
- **Windows Licensing on Virtual Machines:** A valid license key may be entered during installation of each virtual machine or this can be left blank and activated at a later time. However if an invalid key is entered, the virtual machine will continuously reboot. In this case, close the wizard and restart the installation procedure.
- **Unable to connect to vCenter:** If the default user for vCenter Single Sign-On is changed from [administrator@vsphere.local](mailto:administrator@vsphere.local), an error message "The request failed with HTTP status 404: Not Found." is posted and connecting to the vCenter server will fail. Uninstall vCenter and reinstall with the correct user credentials.
- **Login:** When clicking "Login" in the "vCenter Authentication" window with an empty password, the "Login" button will not work, even when the correct password is entered. Close and reopen the wizard.
- **Windows ISO File Location:** The DataCore Deployment Wizard will not display any warnings or error messages if an invalid Windows ISO File Location is entered, and the deployment process will not continue. Restart the deployment with the correct path.
- **vCenter 6.5:** This version will be supported in a future release.

## Enhancements and Fixes in DataCore Deployment Wizard for vSphere 1.6.5

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- **Enhancement:** Added support for Microsoft Windows Server 2016 and Microsoft vCenter 6.5.

## Enhancements and Fixes in DataCore Deployment Wizard for vSphere 1.6.4

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- **Enhancement:** Added the capability to extend the initially established configuration by deploying additional DataCore virtual machines.

## Enhancements and Fixes in DataCore Deployment Wizard for vSphere 1.6

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- **Enhancement:** Preserve log files from virtual machines by copying them to the server running the vSphere wizard.
- **Problem:** The DataCore Deployment Wizard for vSphere installation did not complete the 'Deploying' process.  
**Cause:** A function waiting on a task to complete didn't exit even though the task was complete.  
**Resolution:** A code change was made to poll to verify that the operation has completed, and if it has, continues on to the next operation.
- **Problem:** A NullReference exception occurred when attempting to set server port properties.  
**Cause:** The code was not checking for a null value for one of the parameters in the set server port function.  
**Resolution:** A code change was made to check for this null parameter.
- **Problem:** Entering network IP addresses for iSCSI ports using the slash notation format with a 0 for the bits reserved for network addressing, for example: 172.10.20.24/0, resulting in a node being inaccessible and caused installation steps to fail.  
**Cause:** An IP address with a /0 is invalid.  
**Resolution:** A code change was made to add additional checks for invalid IP addresses.
- **Problem:** The vSphere wizard incorrectly set the subnet mask on a guest virtual machine.  
**Cause:** The IP slash notation information was not included in the configuration file used to install SANsymphony.  
**Resolution:** A code change was made to add this information to the configuration file.
- **Problem:** In some configurations, the vSphere Deployment Wizard did not complete the installation of SANsymphony on a virtual machine.  
**Cause:** On some ESX installations, CD drives could not be discovered because the specific names were language-specific.  
**Resolution:** A code change was made to use device keys generated by ESX, rather than the device name to discover the CD drive.
- **Problem:** The deployment task stopped during installation, and an error 'Datacenter not found. Deployment stopped.' was displayed.  
**Cause:** The vCenter session was dropped or timed out.  
**Resolution:** A code change was made to keep the connection alive by sending requests periodically.

## Enhancements and Fixes in DataCore Deployment Wizard for vSphere 1.1

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- **Problem:** The deployment wizard displayed invalid characters in an error dialog box.  
**Cause:** The format wasn't printing the variable value instead displaying the variable name.  
**Resolution:** A code change was made to print the variable value instead of the name.
- **Problem:** The deployment wizard was stuck waiting in the "Preparing Network Settings" step.  
**Cause:** The ISO image was not mounted, so the script that modifies the network settings could not be accessed.  
**Resolution:** Added a check to confirm the ISO image is mounted before setting up the network.
- **Problem:** Virtual machines could not be created when vSphere presented local disks as non-local causing some datastores to not be displayed in the vCenter Inventory options.  
**Cause:** Local disks were attached on an external controller, making them appear as non-local. Only datastores created on local disks were presented.  
**Resolution:** Present all datastores, except those that are shared on more than two ESXi hosts. Datastores must now be selected manually.

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