

Command-Line Installation and Upgrade of VMware vCenter Server™ 5.0

vCenter Server 5.0 and vSphere Client 5.0

This technical note describes how to install, upgrade, and uninstall VMware vCenter Server and how to install and uninstall the vSphere Client using the Windows command-line interface. The command-line installation requires you to log on to the local machine.

The command-line installation process includes downloading the vCenter Server installer, gathering the required data, and using the command parameters and samples in this technical note to install the products according to your specifications.

IMPORTANT VMware does not support command-line installation and upgrade methods for vCenter Server. However, if the installation or upgrade succeeds, VMware supports the installed or upgraded product.

This technical note provides vCenter Server installation command examples:

- Typical installation accepting all defaults.
- Typical installation with non-defaults.
- Installation in standalone or Linked Mode group environments.
- Installation with and without the bundled database.
- Remote installation.

Examples are also provided for vSphere Client installation commands. The examples describe typical command structures.

vCenter Server Installation Requirements

vCenter Server has system and database requirements. For information about all vCenter Server installation and upgrade requirements, see *vSphere Installation and Setup* and *vSphere Upgrade* at the following site: <http://www.vmware.com/support/pubs>.

NOTE If you plan to use the Microsoft SQL Server 2008 R2 Express database that is bundled with vCenter Server, Microsoft Windows Installer version 4.5 (MSI 4.5) is required on your system. You can download MSI 4.5 from the Microsoft Web site.

Information Required for vCenter Server Installation

Table 1 lists the information that you might need to provide during the installation. The information you provide depends on your specific installation. For example, you must provide database information if you have an existing database, and you must provide server information if you are adding your vCenter Server to a Linked Mode group.

NOTE Record the values that you enter in case you must reinstall vCenter Server and want to use the same values.

Table 1. Information Required for vCenter Server Installation

Data	Default	Comments
User name and organization	Your organization's name	Follow your organization's policy.
vCenter Server license key	None	If you omit the license key, vCenter Server is installed in evaluation mode. After you install vCenter Server, you can enter the vCenter Server license in the vSphere Client.
vCenter Server install location	None	The typical installation path is: %SystemDrive%\Vmware\Infrastructure\
Standalone or group	Standalone	Join a Linked Mode group to enable the vSphere Client to view, search, and manage data across multiple vCenter Server systems. This option does not apply if you are upgrading the VirtualCenter database schema. You can join a Linked Mode group after the installation is complete.
Fully qualified domain name of Directory Services for the vCenter Server group	FQDN	Required. If the instance of vCenter Server is standalone, the default is the machine's FQDN. If this instance of vCenter Server is joining a group, this is the name of a remote instance of vCenter Server. The local and remote instances will be members of a Linked Mode group. In some cases, you can enter the IP address instead of the FQDN. To help ensure connectivity, the best practice is to use the FQDN. For IPv6, unless both the local and the remote machines are in IPv6 mode, you must enter the FQDN of the remote machine instead of the IPv6 address. If the local machine has an IPv4 address and the remote machine has an IPv6 address, the local machine must support IPv4 and IPv6 mixed mode. The domain name server must be able to resolve both IPv4 and IPv6 addresses if your environment has both addressing types in a single Linked Mode group.
LDAP port for the Directory Services for the remote vCenter Server instance	389	Required if this instance of vCenter Server is joining a Linked Mode group. This is the remote instance's LDAP port. See <i>vSphere Installation and Setup</i> at http://www.vmware.com/support/pubs for information on required ports.
Data source name (DSN)	None	Required to use an existing database. If you are using the bundled database, you do not need to specify this field. Default for the bundled database is VMware VirtualCenter.
Database user name	None	Required if the DSN is not using Windows authentication.
Database password	None	Required if the DSN is not using Windows authentication.
JDBC URL for database	None	Required to use an existing database. The vCenter Server installer should generate and validate the JDBC URL for the vCenter Server database. If the installer fails to connect to the database using the generated JDBC URL, the installer prompts you to specify the JDBC URL. The format of the JDBC URL depends on the database that you are using. See <i>vSphere Installation and Setup</i> at http://www.vmware.com/support/pubs for information.

Table 1. Information Required for vCenter Server Installation (Continued)

Data	Default	Comments
vCenter Server account information	Microsoft Windows system account	The Microsoft Windows system account or a user-specified account. Use a user-specified account if you plan to use Microsoft Windows authentication for SQL Server. See <i>vSphere Installation and Setup</i> at http://www.vmware.com/support/pubs for information about running vCenter Server on SQL Server.
HTTPS Web services port	443	See the <i>vSphere Installation and Setup</i> documentation at http://www.vmware.com/support/pubs for information about required ports.
HTTP Web services port	80	
Heartbeat (UDP) port	902	
VMware VirtualCenter Management Web services port	8080	
VMware VirtualCenter Management Web services port	8443	
Web Services change service notification port	60099	
LDAP port for the Directory Services for the local vCenter Server instance	389	
SSL port for the Directory Services for the local vCenter Server instance	636	
vCenter Inventory Service HTTPS port	10443	
vCenter Inventory Service service management port	10109	
vCenter Inventory Service linked mode communication port	10111	

vCenter Server Installation Commands

vCenter Server command-line installation uses Microsoft Windows Installer (MSI) command structure with vCenter Server specific parameters.

Microsoft Windows Installer Commands

The vCenter Server installation commands are based on the Microsoft Windows Installer (MSI).

- Some actions during installation require interactive response to prompts. Only passive installation using the `msiexec` command option `/qr` is supported. The fully silent option (`/qn`) is not supported.
- All parameters that appear between `/v" . . . "` must use a backslash (`\`) to escape the quotation marks, for example, `COMPANY_NAME=\ "VMware, Inc. \"`. If a quote is not escaped, the `/v" . . . "` option is terminated.
- For information about MSI command line options, see Microsoft Developer Network at [http://msdn.microsoft.com/en-us/library/cc185688\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/cc185688(VS.85).aspx).

An installation from a local disk, using `MSIEXEC` command options, has the following format:

```
start /wait <path_to_installer.exe><installer.exe> /s /w /L<Language Code> /v" /qr <parameters>"
```

`<path_to_installer.exe>` is the location of the extracted files.

`<installer.exe>` is the installer executable for vCenter Server (`VMware-vcserver.exe`) or the vSphere Client (`VMware-viclient.exe`).

For example, if `C:\temp\vCenter50\SetupFiles` is the location of the extracted files, use the following command formats.

- vCenter Server installer: `C:\temp\vCenter50\SetupFiles\vpv\VMware-vcserver.exe`
- vSphere Client installer: `C:\temp\vCenter50\SetupFiles\vpv\VMware-viclient.exe`

`<parameters>` are the optional parameters listed in “[vCenter Server Installer Command Parameters](#)” on page 4.

`Language Code` is the language to be used during the installation. The language code used in the examples is English, L1033.

vCenter Server Installer Command Parameters

[Table 2](#) and [Table 3](#) list the parameters that you might need to provide during vCenter Server and vSphere Client installation. The information you provide depends upon your specific installation. For example, you must provide database parameters if you have an existing database, and you must provide server parameters if you are adding your vCenter Server to a group.

Table 2. vCenter Server Installation Command Parameters

Parameter	Default	Conditions
<code>USERNAME=\ "<username>\"</code>	None	User performing installation. If not provided, the installation attempts to read from the registry. Example: "VMware User"
<code>COMPANYNAME=\ "<companyname>\"</code>	None	If not provided, the installation attempts to read from the registry. Example: "VMware, Inc."
<code>LICENSEKEY=\ "<licensekey>\"</code>	""	If you omit the license key, vCenter Server will be in evaluation mode, which allows you to use the full feature set. After installation, you can convert vCenter Server to licensed mode by entering the license key using the vSphere Client.

Table 2. vCenter Server Installation Command Parameters (Continued)

Parameter	Default	Conditions
DB_SERVER_TYPE=[Bundled Custom]	Bundled	<p>Configures vCenter Server to use an existing database instance.</p> <p>When using <code>Bundled</code>, you must also include <code>FORMAT_DB=1</code>.</p> <p>When using <code>Custom</code>, you must also include <code>DB_DSN="\<dns_name>\"</code>, <code>DB_PASSWORD="\<password>\"</code>, and <code>DB_USERNAME="\<username>\"</code>.</p> <ul style="list-style-type: none"> ■ The bundled database is suitable for deployments of up to 5 hosts and 50 virtual machines. ■ When you use an existing (custom) database, one of the following choices applies: <ul style="list-style-type: none"> ■ If your database is a local SQL Server database using Windows NT authentication, do not specify the user name and password. ■ If you specify a remote SQL Server database that uses Windows NT authentication, the specified database user and the logged-in user on the vCenter Server machine must be the same.
DB_DSN="\<name>\"	"VMware VirtualCenter"	<p>Customizes the DSN.</p> <p>Required only if <code>DB_SERVER_TYPE=Custom</code>.</p>
DB_DSN_WINDOWS_AUTH		<p>Set to 1 if integrated security is used with SQL Server or SQL Server Express database. Otherwise, this parameter is not passed.</p>
DB_USERNAME="\<name>\"	""	<p>Sets the DSN account name.</p> <p>Required only if <code>DB_SERVER_TYPE=Custom</code>.</p> <p>To use Windows authentication for SQL Server, specify an account that is an administrator on the local machine. As a best practice, type the account name as <code><domain_name>\<user_name></code>.</p> <ul style="list-style-type: none"> ■ If your database is a local SQL Server database using Windows NT authentication, do not specify the user name and password. ■ If you specify a remote SQL Server database that uses Windows NT authentication, the specified database user and the logged-in user on the vCenter Server machine must be the same.
DB_PASSWORD="\<password>\"	""	<p>Sets the DSN account password.</p> <p>Required only if <code>DB_SERVER_TYPE=Custom</code>.</p> <ul style="list-style-type: none"> ■ If your database is a local SQL Server database using Windows NT authentication, do not specify the user name and password. ■ If you specify a remote SQL Server database that uses Windows NT authentication, the database user and the logged-in user on the vCenter Server machine must be the same.
FORMAT_DB=1	None	<p>Creates a fresh database schema. All existing data is lost if the database already exists.</p> <p>Required only if <code>DB_SERVER_TYPE=Bundled</code>, but can be used with <code>DB_SERVER_TYPE=Custom</code> as a means to overwrite existing database.</p>



CAUTION Using `FORMAT_DB=1` results in loss of data. Do not use it if you want to preserve the existing data and the database schema.

Table 2. vCenter Server Installation Command Parameters (Continued)

Parameter	Default	Conditions
JVM_MEMORY_OPTION	S	<p>Choices refer to vCenter Server inventory size.</p> <ul style="list-style-type: none"> ■ S – Small inventory (1-100 hosts or 1-1000 virtual machines) ■ M – Medium inventory (100-400 hosts or 1000-4000 virtual machines) ■ L – Large inventory (more than 400 hosts or 4000 virtual machines) <p>This parameter determines the maximum JVM heap settings for VMware VirtualCenter Management Webservices (Tomcat), Inventory Service, and Profile-Driven Storage Service. You can adjust this setting after installation if the number of hosts in your environment changes. See the recommendations in the <i>vSphere Installation and Setup</i> documentation.</p>
VPX_USES_SYSTEM_ACCOUNT=["" 1]	System	<p>System – Use system account.</p> <p>0 – Non-null value, such as 0, behaves the same as 1.</p> <p>When value is 1, do not include the parameters VPX_ACCOUNT_UPN="\<acctname>@\<UNCname>", VPX_PASSWORD="\<pwd>", VPX_PASSWORD_VERIFY="\<pwd>", or VPX_ACCOUNT="\<UNCname>\<acctname>".</p> <p>"" – Use account provided.</p> <p>When value is "", you must include VPX_ACCOUNT_UPN="\<acctname>@\<UNCname>", VPX_PASSWORD="\<pwd>", VPX_PASSWORD_VERIFY="\<pwd>", and VPX_ACCOUNT="\<UNCname>\<acctname>".</p>
VPX_ACCOUNT="\<UNCname>\<acctname>"	None	<p>User account to run VMware vCenter Server service.</p> <p><UNCname> can either be the domain name or local host name. <acctname> default is the current logged in user.</p> <p>The administrator user must have Logon as a Service right.</p> <p>Required only if VPX_USES_SYSTEM_ACCOUNT=""; ignored if 1. Example: mydomain\john</p>
VPX_PASSWORD="\<pwd>"	None	<p>User account password.</p> <p>Required only if VPX_USES_SYSTEM_ACCOUNT=""; ignored if 1.</p>
VPX_PASSWORD_VERIFY="\<pwd>"	None	<p>Verify user account password.</p> <p>Required only if VPX_USES_SYSTEM_ACCOUNT=""; ignored if 1.</p>
INSTALLDIR="\<installdir>"	None	<p>Specifies an alternate install directory.</p> <p>The installation path cannot have commas (,) or periods (.).</p> <p>To install vCenter Server on a drive other than C:, verify that there is enough space in the C:\WINDOWS\Installer folder to install the Microsoft Windows Installer .msi file.</p> <p>If you use an Oracle DSN, the path name cannot contain opening or closing parentheses.</p>
VC_DSN		The DSN name that you create for the database.
VC_JDBC_URL		JDBC URL for the database. Required if you use an existing database.
VCS_GROUP_TYPE=[Single Group]	Single	<p>Types of Directory Services instance.</p> <p>When using Group, you must include VCS_ADAM_PRIMARY_PORT="\<port>" and VCS_ADAM_PRIMARY_SERVER="\<IPaddr>".</p>

Table 2. vCenter Server Installation Command Parameters (Continued)

Parameter	Default	Conditions
VCS_ADAM_PRIMARY_SERVER= \"<IPaddr>\"	""	IP address or fully qualified DNS name of the remote vCenter Server to which you want to join this vCenter Server instance. Example: <code>vcms-internal.eng.vmware.com</code> . Required only if VCS_GROUP_TYPE=Group.
VCS_ADAM_PRIMARY_PORT=<port>	389	LDAP port that the remote Directory Services instance is listening on. Required only if VCS_GROUP_TYPE=Group.
VCS_HTTPS_PORT=<port>	443	vCenter Server HTTPS port.
VCS_HTTP_PORT=<port>	80	vCenter Server HTTP port.
VCS_HEARTBEAT_PORT=<port>	902	vCenter Server Heartbeat port.
TC_HTTP_PORT=<port>	8080	VMware vCenter Web services HTTP port.
TC_HTTPS_PORT=<port>	8443	VMware vCenter Web services HTTPS port.
VCS_ADAM_LDAP_PORT=<port>	389	LDAP port of Directory Services where VMware VCMSDS listens.
VCS_ADAM_SSL_PORT=<port>	636	SSL port of Directory Services where VMware VCMSDS listens.
QUERY_SERVICE_HTTPS_PORT	10443	Inventory Service HTTP port.
QUERY_SERVICE_XDB_PORT	10109	vCenter Inventory Service service management port.
QUERY_SERVICE_FEDERATION_PORT	10111	vCenter Inventory Service linked mode communication port.
QUERY_SERVICE_NUKE_DATABASE	1	Set to 1 to clear the existing database for Inventory Service

Table 3. vSphere Client Installation Command Parameters for the `vmware-client.exe` Command

Parameter	Default	Conditions
INSTALLDIR=\"<installdir>\"	None	Specifies an alternate install directory and creates a Virtual Infrastructure Client directory. The installation path cannot have commas (,) or periods (.). If you install vSphere Client on a drive other than C:, verify that there is enough space in the C: \WINDOWS\Installer folder to install the Microsoft Windows Installer .msi file.

Performing a Command-Line Installation

This section describes how to install vCenter Server and the vSphere Client from the command line.

Using a Virtual Machine for Installation

You can install vCenter Server in a Microsoft Windows virtual machine, which runs on a VMware ESXi host. Deploying the vCenter Server system in the virtual machine has several advantages.

- Rather than dedicating a separate server to the vCenter Server system, you can place it in a virtual machine running on the same ESXi host where your other virtual machines run.
- You can provide high availability for the vCenter Server system by using VMware High Availability (HA).
- You can migrate the virtual machine containing the vCenter Server system from one host to another, enabling maintenance and other activities.
- You can create snapshots of the vCenter Server virtual machine and use them for backups, archiving, and so on.

Preparing for Installation

Before you perform the vCenter Server or vSphere Client installation, prepare your system.

Installing with Required Administrator Rights

When you are installing a vCenter Server, the administrator user must be able to ensure that vCenter Server receives Logon as a Service rights.

To ensure that the administrator user that vCenter Server uses for startup has Logon as a Service rights

- 1 Select **Control Panel > Administrative Tools**.
- 2 Select **Local Security Policy**.
- 3 Select **Local Policies > User Rights Assignment**
- 4 Double-click **Logon as a service** in the right-side pane and add the VPX_ACCOUNT user to the list.

Installing on a Standalone Server

If you are installing on a standalone server, install the vSphere Client first.

To prepare for installing on a standalone server

- 1 On any machine that has network access to the ESXi host, install the vSphere Client.
- 2 Using the vSphere Client, access an ESXi host directly to create the virtual machine for hosting vCenter Server.
- 3 In the virtual machine, install vCenter Server.

Installing over a Network

If you are installing over a network, run the installer from a local machine.

To prepare for installing over a network

- 1 Place the installer on a network drive and call the installer from a local machine.
- 2 Enter the Universal Naming Convention (UNC) address in the format `\\servername\path`.

Installing with an Existing Database

If you are installing on a system and there is an existing database, prepare for database access.

To prepare for installing with an existing database

- 1 Ensure that the database host machine belongs to the domain.
- 2 Log in to the database host machine as a domain user that belongs to the local administrator group.
- 3 Create the DSN with integrated OS authentication mode.
The DSN user must be the same as the local administrator for vCenter Server service account.

Installing and Joining a Group Using Linked Mode

If you are installing a vCenter Server that you want to join to a Linked Mode group, ensure that there is another version 5.0 vCenter Server, so that you have a group of at least two servers. There must be at least two vCenter Server installations to create a group. vCenter Server does not support Linked Mode groups that contain both version 5.0 and earlier versions of vCenter Servers.

To prepare for installing and joining a group using linked mode

- 1 Install the first vCenter Server instance and specify `VCS_GROUP_TYPE=Single`.
- 2 For each subsequent vCenter Server installation that you will add to the initial group, specify `VCS_GROUP_TYPE=Group` and provide the FQDN of the host of the first installation.

Installing vCenter Server Remotely

To install vCenter Server remotely, install vCenter Server, Inventory Service and Profile-Driven Storage Service (SPS) separately in this order: vCenter Server, Inventory Service, and SPS. See the command line examples in “vCenter Server Remote Installation Examples” on page 12.

Installing vCenter Server and the vSphere Client

Before you begin, review the command line installation options and select the appropriate methods. See “vCenter Server Installer Command Parameters” on page 4.

Follow these syntax and installation guidelines:

- You must include double quotation marks for values that contain spaces. Otherwise, the installation fails. Using null, as in `<parameter>=`, for `\"\"` is not allowed. For values other than null, double quotation marks are not required, for example `FORMAT_DB = 1` and `FORMAT_DB = "1"` are identical.
- Command options are case-sensitive. For example, use `Bundled`, not `bundled` or `BUNDLED`.
- The command installation process is not completely silent. Prompts can occur. Respond to the prompts.
- When you enter responses to prompts, or values to parameters, the content of the response or parameter is not validated. It is accepted. Ensure that the values entered as responses to prompts or values for parameters are correct. Otherwise, vCenter Server will not start up after installation.
- Linked Mode installation is supported between different domains only when those two domains have a two-way trust relationship. If the two domains do not share a two-way trust, you cannot install vCenter Server cannot be installed.

To install vCenter Server or the vSphere Client from the command line

- 1 Download the installer and any additional modules for vCenter Server and the vSphere Client.
 - a Download the zip file for vCenter Server from the VMware product page at <http://www.vmware.com/products>.
The installer zip file name is `VMware-VIMSetup-xx-5.0.0-yyyyy.zip`, where `xx` is the two-character language code, and `yyyyy` is the build number.
 - b Extract the files from the zip archive.
- 2 Open a Windows command prompt on the virtual machine or server that you are going to install vCenter Server or vSphere Client on.
- 3 Change directory to the location of the installation executables.
- 4 From the command line of the server or virtual machine where you are installing vCenter Server or the vSphere Client, run the appropriate command string
 - The command string format from a network location is:
`start /wait <installer.exe_file> <parameters>`
 - The command string format from a local disk is:
`start /wait <installer.exe file> /qr /s /w /L<Language Code> /v" /qr <parameters>"`

vCenter Server Local Installation Examples

The examples assume that you are running the installation from a local disk, not a network location. See [“Installing over a Network”](#) on page 8.

For examples of vCenter Server remote installation commands, see [“vCenter Server Remote Installation Examples”](#) on page 12.

Typical Install

Use the default settings to install vCenter Server to the default location with the bundled database.

Example 1. Typical Installation – Use the Default Settings

```
start /wait C:\VMware-VIMSetup-5.0.0-150520\vpv\VMware-vcserver.exe /s /w /L1033 /v" /qr
DB_SERVER_TYPE=Bundled
FORMAT_DB=1
/L*v \"%TEMP%\vmvcsvr.log\""
```

If the database is already installed, FORMAT_DB=1 command parameter specifies replacing the existing database. When DB_SERVER_TYPE=Bundled is used, FORMAT_DB=1 must also be specified as described in the [Table 2](#) condition for DB_SERVER_TYPE.

Custom Installation

[Example 2](#) sets parameters for a single vCenter Server custom installation.

Example 2. Custom Installation – Single vCenter Server Installation Parameters

```
start /wait C:\VMware-VIMSetup-5.0.0-xxxxxx\vpv\VMware-vcserver.exe /s /w /L1033 /v" /qr
WARNING_LEVEL=0
USERNAME="administrator\"
COMPANYNAME="VMware\"
LICENSEKEY="xxxxx-xxxxx-xxxxx-xxxxx-xxxxx\"
DB_SERVER_TYPE=Custom
DB_DSN="VCCmdLineInstall-2\"
DB_USERNAME="Administrator\"
DB_PASSWORD="CENSORED\"
VPX_USES_SYSTEM_ACCOUNT=0
VPX_ACCOUNT="TEST\administrator\"
VPX_PASSWORD="CENSORED\"
VPX_PASSWORD_VERIFY="CENSORED\"
INSTALLDIR="C:\VCServer\"
VCS_GROUP_TYPE=Single
VCS_HTTPS_PORT=443
VCS_HTTP_PORT=80
VCS_HEARTBEAT_PORT=902
TC_HTTP_PORT=8080
TC_HTTPS_PORT=8443
VCS_ADAM_LDAP_PORT=389
VCS_ADAM_SSL_PORT=902
QUERY_SERVICE_HTTPS_PORT=10443
QUERY_SERVICE_XDB_PORT=10109
QUERY_SERVICE_FEDERATION_PORT=10111
```

Installation over a Network

Over a network, use the default settings to install vCenter Server to the default location with the bundled database

Example 3. Typical Installation from a Network

```
start /wait \\10.112.121.19\c\VMware-VIMSetup-5.0.0-150520\VCServer\VMware-vcserver.exe /s
/w /L1033 /v" /qr
FORMAT_DB=1"
```

When DB_SERVER_TYPE is not specified, its default value is Bundled, so FORMAT_DB=1 must be specified as shown in the [Table 2](#) condition for DB_SERVER_TYPE.

Installation with an Existing Database

[Example 4](#) sets the default user as the custom database server user. The domain user sets the default user for vCenter Server, integrated OS authentication, and remote SQL Servers. The same command string works for local SQL Servers.

Example 4. Typical Installation with an Existing Database

```
start /wait C:\VMware-VIMSetup-en-5.0.0\vCenter-Server\VMware-vcserver.exe /s /w /L1033 /v" /qr
USERNAME="administrator"
COMPANYNAME="VMware"
LICENSEKEY="xxxxx-xxxxx-xxxxx-xxxxx-xxxxx"
DB_SERVER_TYPE=Custom
DB_DSN="sql2005_NT_mli"
DB_USERNAME="mli"
DB_PASSWORD="CENSORED"
VPX_USES_SYSTEM_ACCOUNT=""
VPX_ACCOUNT="PDPVC\mli"
VPX_PASSWORD="CENSORED"
VPX_PASSWORD_VERIFY="CENSORED"
```

If you are using SQL authentication for ODBC DSN, vCenter Server can run either as a local system account or as a domain user account.

Custom Installation with Linked Mode

[Example 5](#) sets multiple vCenter Server installation parameters and joins a group of vCenter Servers. This Linked Mode examples describes how to have the installation join the group of an existing primary vCenter Server. You can specify either a local system account or user-specified account.

The command in [Example 5](#) does not install a standalone vCenter Server.

Example 5. Custom Installation with Linked Mode

```
start /wait C:\VMware-VIMSetup-en-5.0.0\vCenter-Server\VMware-vcserver.exe /s /w /L1033 /v" /qr
USERNAME="administrator"
COMPANYNAME="VMware"
LICENSEKEY=xxxxx-xxxxx-xxxxx-xxxxx-xxxxx
DB_SERVER_TYPE=Custom
DB_DSN="VCCmdLineInstall-2"
DB_USERNAME="Administrator"
DB_PASSWORD="CENSORED"
VPX_USES_SYSTEM_ACCOUNT=""
VPX_ACCOUNT="TEST\administrator"
VPX_PASSWORD="CENSORED"
VPX_PASSWORD_VERIFY="CENSORED"
INSTALLDIR="C:\VCServer"
VCS_GROUP_TYPE=Group
VCS_ADAM_PRIMARY_SERVER="<IPaddr>"
VCS_ADAM_PRIMARY_PORT=389
VCS_HTTPS_PORT=443
VCS_HTTP_PORT=80
VCS_HEARTBEAT_PORT=902
TC_HTTP_PORT=8080
TC_HTTPS_PORT=8443
VCS_ADAM_LDAP_PORT=389
VCS_ADAM_SSL_PORT=636
QUERY_SERVICE_HTTPS_PORT=10443
QUERY_SERVICE_XDB_PORT=10109
QUERY_SERVICE_FEDERATION_PORT=10111
```

Installation with Linked Mode and Existing Database

Example 6 installs vCenter Server with an existing database and keeps the existing database data while joining the installed vCenter Server to a Linked Mode group of vCenter Servers.

NOTE For Oracle 10g and Oracle 11g, to continue the installation, you must respond to the confirmation prompt that appears.

Example 6. Install with Linked Mode and Existing Database

```
start /wait C:\VMware-VIMSetup-en-5.0.0\vCenter-Server\VMware-vcserver.exe /s /w /L1033 /v" /qr
USERNAME="administrator"
COMPANYNAME="VMware"
LICENSEKEY="xxxxx-xxxxx-xxxxx-xxxxx-xxxxx"
DB_SERVER_TYPE=Custom
DB_DSN="\VCCmdLineInstall-2\"
DB_USERNAME="Administrator"
DB_PASSWORD="CENSORED"
FORMAT_DB=0
VPX_USES_SYSTEM_ACCOUNT=""
VPX_ACCOUNT="TEST\administrator"
VPX_PASSWORD="CENSORED"
VPX_PASSWORD_VERIFY="CENSORED"
INSTALLDIR="C:\VCServer"
VCS_GROUP_TYPE=Group
VCS_ADAM_PRIMARY_SERVER="<IPaddr>"
VCS_ADAM_PRIMARY_PORT=389
VCS_HEARTBEAT_PORT=902
VCS_HTTPS_PORT=443
VCS_HTTP_PORT=80
TC_HTTP_PORT=8080
TC_HTTPS_PORT=8443
VCS_ADAM_LDAP_PORT=389
VCS_ADAM_SSL_PORT=636
QUERY_SERVICE_HTTPS_PORT=10443
QUERY_SERVICE_XDB_PORT=10109
QUERY_SERVICE_FEDERATION_PORT=10111
```

vCenter Server Remote Installation Examples

To install vCenter Server remotely, install vCenter Server, Inventory Service and Profile-Driven Storage Service (SPS) separately in this order: vCenter Server, Inventory Service, and SPS.

Example 7. vCenter Server Remote Installation

```
VMware-vcserver.exe /s /v"DB_DSN=VC_DSN DB_DSN_WINDOWS_AUTH=1 DB_SERVER_TYPE=Custom
INSTALLDIR="C:\Program Files\VMware\Infrastructure\" VCS_GROUP_TYPE=Single
JVM_MEMORY_OPTION=S /qr"
```

Example 8. Inventory Service Remote Installation

```
msiexec.exe /L*V "C:\Users\ADMINI~1\AppData\Local\Temp\vim-qs-msi.log" /i
"C:\VMware-vpx-en-5.0.0-481269\vCenter-Server\Inventory Service\vCenter Inventory
Service.msi" INSTALLDIR="C:\Program Files\VMware\Infrastructure\" HTTPS_PORT=10443
XDB_PORT=10109 FEDERATION_PORT=10111 QUERY_SERVICE_NUKE_DATABASE=1 SSL_PORT=443
TOMCAT_MAX_MEMORY_OPTION=S COMPUTER_FQDN=abc.eng.vmware.com ARPSYSTEMCOMPONENT=1
SKIPVCCHECK=1 /qr"
```

Example 9. Profile-Driven Storage Service Remote Installation

```
msiexec.exe /L*v "C:\Users\ADMINI~1\AppData\Local\Temp\vim-sps-msi.log" /i
"C:\VMware-vpx-en-5.0.0-481269\vCenter-Server-Profile-Driven Storage\VMware
vSphere Profile-Driven Storage.msi" INSTALLDIR="C:\Program
Files\VMware\Infrastructure\" SPS_HTTP_PORT=31000 SPS_HTTPS_PORT=31100
COMPUTER_FQDN=abc.eng.vmware.com QUERY_SERVICE_NUKE_DATABASE="1"
QS_VERSION_INSTALLED="" TOMCAT_MAX_MEMORY_OPTION="S" ARPSYSTEMCOMPONENT=1
SKIPVCCHECK=1 /qr
```

vSphere Client Installation Examples

The examples assume that you are running the installation from a local disk, not a network location.

Example 10. Typical vSphere Client Installation

```
start /wait C:\VMware-VIMSetup-en-5.0.0\vSphere-Client\VMware-viclient.exe /s /w /L1033 /v" /qr"
```

Example 11. vSphere Client Installation with a Log File

```
start /wait C:\VMware-VIMSetup-en-5.0.0\vSphere-Client\VMware-viclient.exe /s /w /L1033 /v" /qr
/L*v "%TEMP%\vmvcc.log"
```

Example 12. Custom vSphere Client Installation

```
start /wait C:\VMware-VIMSetup-5.0.0\vSphere-Client\VMware-viclient.exe /s /w /L1033 /v" /qr
USERNAME="Administrator" COMPANYNAME="VMware"
INSTALLDIR="C:\VIClient"
```

Example 13. vSphere Client Reinstallation

```
start /wait C:\VMware-VIMSetup-en-5.0.0\vSphere-Client\VMware-viclient.exe /s /w /L1033 /v" /qr
/L*v "%TEMP%\vmvcc.log"
```

vSphere Client 5.0 Installation over Virtual Infrastructure Client

Installing the vSphere Client over an existing installation overwrites the original installation. You are not prompted to confirm the installation. You can safely install the vSphere Client over the following versions of the Virtual Infrastructure Client (VI Client) or the vSphere Client:

- VI Client 2.0
- VI Client 2.0.1
- VI Client 2.0.1 P1, P2
- VI Client 2.0.2
- VI Client 2.0.2 U1, U2, U3, U4, U5
- VI Client 2.5
- VI Client 2.5 U1, U2, U3, U4
- vSphere Client 4.0
- vSphere Client 4.1

Example 14. vSphere Client 5.0 Installation over Virtual Infrastructure Client

```
start /wait C:\VMware-VIMSetup-en-5.0.0\vSphere-Client\VMware-viclient.exe /s /w /L1033 /v" /qr
/L*v "%TEMP%\vmvcc.log"
```

Performing a Command-Line Upgrade of vCenter Server

You can upgrade vCenter Server from the command line in either of the following ways.

- Upgrade the vCenter Server database first, and then upgrade vCenter Server.
- Upgrade both the vCenter Server database and vCenter Server in a single command.

To upgrade vCenter Server from the command line

- 1 (Optional) Upgrade the vCenter Server database before upgrading vCenter Server.

```
<path_to_vCenter-Server>\vCenter-Server\dbupgrade\bin\VCDatabaseUpgrade.exe DSN=<DSN_name>
UID=<DB_username> PWD=<DB_password> LOGFILE=<optional or specify another name
with path>
```

To run this command silently, add the parameter `QUIET=true`. The `<DB_username>` depends on the database type:

- For SQL Server databases. If the DSN uses Windows authentication, the `<DB_username>` is the user name for the logon user. If the DSN uses the SQL Server authentication, the `<DB_username>` is the specific database user.
- For Oracle or IBM DB2 databases, the `<DB_user name>` is the database user.

The `<DB_password>` is the password for the specified `<DB_username>`.

- 2 Upgrade vCenter Server and the vCenter Server database.

```
<path_to_vCenter-Server>\vCenter-Server\VMware-vcserver.exe /S /L1033
/v"DB_EXISTING_VERSION=<existing_database_version> DB_DSN=<database_DSN>
DB_USERNAME=<database_user_name> DB_PASSWORD=<database_password>
LAUNCHWIZARD="1\" VCS_DB_BACKUP="1\" /qr
```

If the vCenter Server database is already upgraded, this command does not upgrade the database again. For the `/L1033` parameter, use the appropriate language code for your system. For the `DB_EXISTING_VERSION` parameter, use the following schema version numbers:

- VirtualCenter 2.5 Update 6: 5
- vCenter Server 4.0.x: 400
- vCenter Server 4.1.x: 410
- vCenter Server 5.0: 500

You can customize this command by using the parameters in [Table 2](#).

Uninstalling vCenter Server or the vSphere Client from the Command Line

vCenter Server installations include the Profile-Driven Storage Service (SPS) and Inventory Service. You can enter a single command to uninstall vCenter Server, Profile-Driven Storage Service (SPS) and Inventory Service.

To uninstall vCenter Server, Profile-Driven Storage Service, and Inventory Service

- 1 Open a Windows command prompt on the virtual machine or server that vCenter Server is installed on.
- 2 Run the following command:

```
msiexec.exe /I{1FBCB62E-6178-455F-ADE2-07957D81A7D4} REMOVE=ALL  
SUPPRESS_CONFIRM_UNINSTALL="1" /qr
```

To uninstall the vSphere Client

- 1 Open a Windows command prompt on the virtual machine or server that the vSphere Client is installed on.
- 2 Run the following command:

```
MsiExec.exe /x{04805AB6-F757-496A-8D56-37A0FC5FF6F3}
```

If you have comments about this documentation, submit your feedback to: docfeedback@vmware.com

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