



Pre-Upgrade

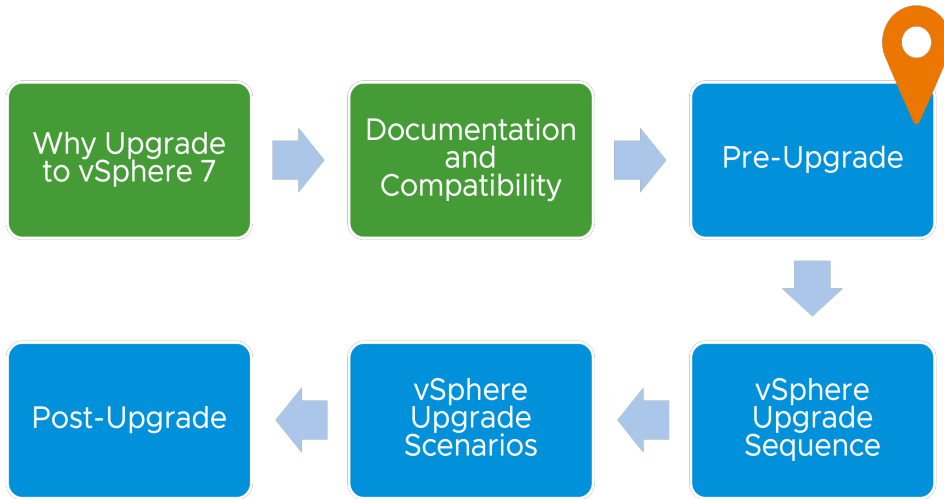
Table of contents

Pre-Upgrade	3
You Are Here	3
Pre-Upgrade	4
Backing Up Your Environment	4
Skyline Health	4
Upgrading Legacy Components	5
SSO Domain Topology Reconfiguration	5
Converge	6
Consolidate	6
Distribute	6
Remove vCenter HA	7
Resources	8
Documentation	8

Pre-Upgrade

You Are Here

This document is part of the vSphere 7 Upgrade Activity Path. [Click here](#) to return to the activity path.



Pre-Upgrade

Backing Up Your Environment

[Overview of Backup and Restore options in vCenter Server 6.x/7.0.x \(2149237\)](#)

It is crucial that you back up your vSphere environment prior to upgrading—ensuring that you have successful backups is essential. Not only must you think about backing up Platform Services Controller and vCenter Server instances, but also you must be confident that all components have been backed up. Do not forget [ESXi Configuration](#), [Distributed Virtual Switch](#), and other VMware products like [VMware NSX](#) and [VMware Horizon](#).

If you are leveraging the vCenter Server appliance on vSphere 6.5 or vSphere 6.7, VMware recommends using the built-in [File-Based Backup](#). If your environment is running vCenter Server for Windows, we recommend that you use a supported [image-based backup](#) tool.

Any issues encountered during a vCenter Server migration or upgrade can best be corrected with a rollback, rather than a restore. When migrating from vCenter Server for Windows to vCenter Server appliance a rollback is as straightforward as shutting down the newly deployed vCenter Server appliance and removing it from inventory, powering on the vCenter Server for Windows, then rejoining the server back to Active Directory. When performing an upgrade from vCenter Server appliance to vCenter Server appliance, the rollback process is the same: Shut down the new appliance and then power-on the original.

Note: When upgrading multiple vCenter Server instances in a single SSO domain (enhanced linked mode) it is advisable to perform file-based backups of all vCenter Server Appliance instances, and image-based backups of Windows vCenter Servers before each upgrade. Image based backups and snapshots should be created while all instances in the SSO domain are powered off, to avoid inconsistencies arising during a rollback event.

Skyline Health

When you perform a vSphere upgrade, we recommend that you do a health check. If an environment is not in a healthy state, errors can occur which might require a rollback.

Common mistakes that can cause a failure may be invalid DNS or NTP settings, hard disk capacity problems, or a critical service that might have stopped. Being able to review the health of your vSphere environment can save time, give insight to unknown issues, as well as prevent further errors from occurring.

Included in vSphere 6.7 GA and higher is Skyline Health for vSphere (formerly vSphere Health). vSphere Health and vSAN Health have been highly instrumental in assisting organizations to triage their vSphere environments for configuration consistency, best practice information, vulnerability discovery, and proactive analytics. Now part of Skyline Health, Skyline Health for vSphere is available to all VMware Support levels.

We recommend leveraging Skyline Health for vSphere if you are running vSphere 6.7 GA or higher, other tools such as vRealize Operations, or community-based tools such as vCheck. Engage VMware Professional Services or a VMware Partner for further assistance.

Skyline Advisor

[Skyline Advisor](#) is a self-service web application that allows customers to view their proactive findings and recommendations on-demand, within a web browser. Skyline Advisor is available to customers who have installed and configured the Skyline Collector. Customers use Skyline Advisor to view account details, inventory details, findings discovered by VMware Skyline, proactive recommendations, download Operational Summary Reports (OSR), and transfer support bundles using Skyline Log Assist.

- [Skyline Advisor Overview](#)
- [Announcing Skyline Advisor Pro: The Next Level of Proactive Intelligence](#)

vSphere Diagnostic Tool (Fling)

[vSphere Diagnostic Tool Fling](#) is a python script that runs diagnostic commands on the vCenter Server to return useful troubleshooting data while running within the confines of the local environment without upstream dependencies.

Important: Flings are experimental and should not be run on production systems.

Upgrading Legacy Components

vSphere 7 does not support any components of version 6.0 or older. Before you begin to upgrade an environment to vSphere 7, you may first need to upgrade some components to a minimum of version 6.5.

This includes updating any ESXi hosts running older versions, to at least version 6.5. Depending on the hardware configuration, you may be limited as to what is the latest version of ESXi the hardware supports. vSphere Distributed Switches must be updated to a minimum of version 6.5.0, and any host profiles in the environment should either be updated from a more recent reference host, or new host profiles can be extracted.

The vCenter Server upgrade process checks for these incompatibilities before it allows the upgrade to continue.

Pre-upgrade check result

❗ Error	vCenter Server upgrade with outdated ESXi hosts with version less than 6.5 is not allowed. Read Knowledge Base Article 52883
Resolution	Upgrade outdated hosts to 6.5 or above. Read Knowledge Base Article 52883.
❗ Error	Source vCenter Server has instance(s) of Distributed Virtual Switch at unsupported version.
Resolution	Distributed Virtual Switches with versions lower than 6.5.0 are not supported with vCenter Server 7.0. Upgrade these Distributed Switches to version 6.5.0 or later to be able proceed with the upgrade of vCenter Server. For more information see Knowledge Base article 52826.
❗ Error	Source vCenter Server has unsupported version of host profiles.
Resolution	Host profiles with versions lower than 6.5 are not supported by vCenter Server 7.0.0. Upgrade the 1 host profiles listed below to version 6.5 or later before proceeding with the upgrade of vCenter Server. Upgrade the host profiles before upgrading all hosts with versions lower than 6.5. For more information see Knowledge Base article 52932. List of unsupported host profiles: Host Profile-test-cluster.

[CLOSE](#)[LOGS](#)

SSO Domain Topology Reconfiguration

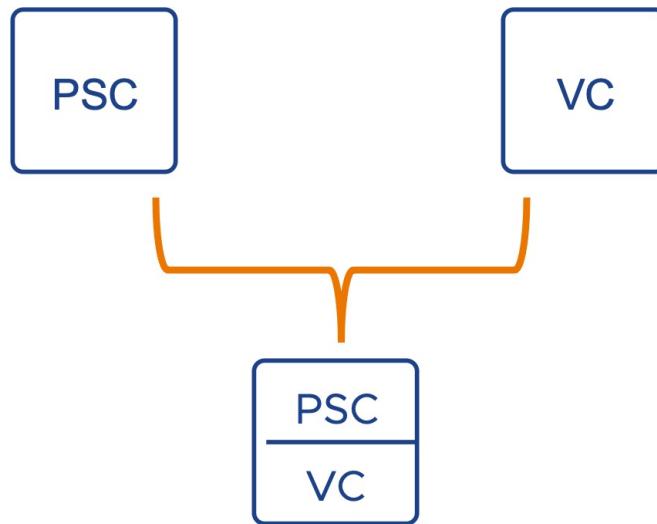
vSphere 6.7 and later allows you to [converge external Platform Services Controllers](#) and perform [SSO domain repointing](#). An upgrade to vSphere 7 can automatically perform external Platform Services Controller convergence, however, you may wish to manually perform converge or domain repointing tasks prior to upgrade.

Note: This functionality is not available in vSphere 6.5.

Converge

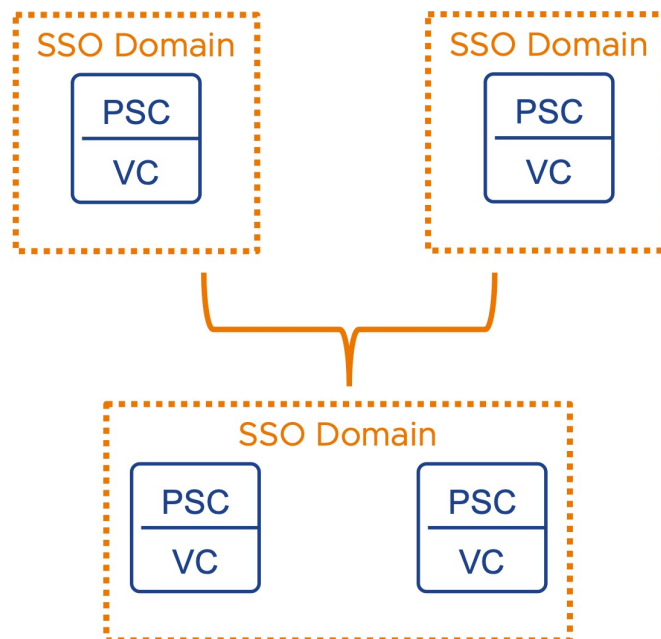
If you have one or more vCenter Servers using external Platform Services Controllers, you can perform a converge task on each vCenter Server node to install a new Platform Services Controller instance co-located with the vCenter Server instance forming an embedded vCenter Server node. Once the converge task is complete, the external Platform Services Controller must be decommissioned from the SSO domain and the VM can then be deleted.

You must converge all vCenter Server nodes in a single SSO domain before you decommission and delete any external Platform Services Controllers.



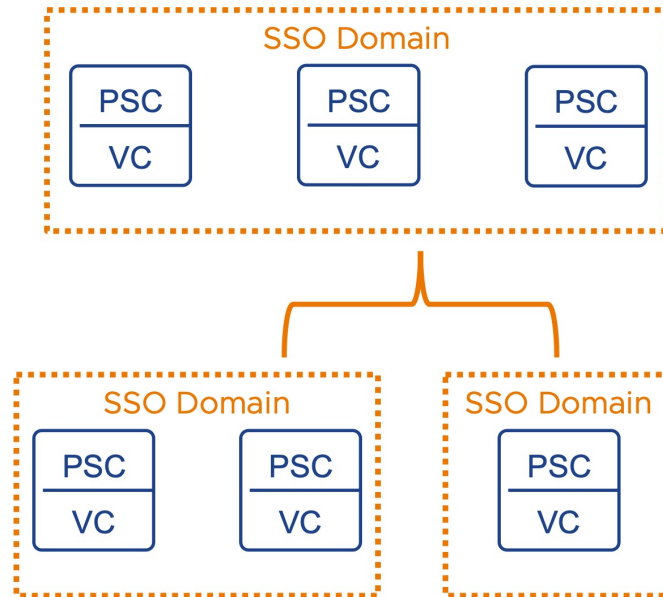
Consolidate

You can use SSO domain repointing to consolidate separate vCenter instances into a single SSO domain to activate Enhanced Linked Mode.



Distribute

Conversely, you can use SSO domain repointing to remove instances from Enhanced Linked Mode, into their own separate SSO domain. This may be useful if circumstances prevent all vCenter instances in a single SSO domain from being upgraded to vSphere 7.



Remove vCenter HA

While VMware does support an in-place [upgrade of a vCenter HA cluster](#) to version 7, [deactivating and removing](#) vCenter HA simplifies the upgrade workflow and makes things easier to troubleshoot in the event the upgrade fails. If required, vCenter HA can be [activated](#) on the upgraded vCenter Server 7 instance.

Resources

Documentation

- [Overview of Backup and Restore options in vCenter Server 6.x/7.0.x \(2149237\)](#)
- [Roll Back a vCenter Server Instance on Windows When vCenter Server Upgrade Fails](#)
- [Skyline Advisor Overview](#)
- [Announcing Skyline Advisor Pro: The Next Level of Proactive Intelligence](#)
- [How to back up ESXi host configuration \(2042141\)](#)
- [Backing Up and Restoring Networking Configurations](#)
- [Backing Up and Restoring NSX Manager or Global Manager](#)
- [Maintaining Horizon Components](#)
- [File-Based Backup and Restore of vCenter Server Appliance](#)
- [Image-Based Backup and Restore of a vCenter Server Environment](#)
- [Converging vCenter Server with an External Platform Services Controller to a vCenter Server with an Embedded Platform Services Controller](#)
- [Repoint vCenter Server with Embedded Platform Services Controller to Another vCenter Server with Embedded Platform Services Controller in a Different Domain](#)
- [Repoint vCenter Server to External Platform Services Controller in a Different Domain](#)
- [Repoint vCenter Server to Another External Platform Services Controller in the Same Domain](#)
- [Upgrading vCenter Server in High Availability Environments](#)
- [Remove a vCenter HA Configuration](#)
- [Configure vCenter HA With the vSphere Client](#)

