



# The Art of the Upgrade

Tips & Tricks for Upgrading vSphere

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# Before We Get Too Far...

Set some expectations here!

## What This Talk Is

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Salient points and things to think about

Resources for planning

Background information

Help to build confidence that this can (and should) be done

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## What This Talk Is Not

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All deployments are different, so not comprehensive

Not going to fix process issues inside your organization

Not a substitute for testing

Not a substitute for GSS

Parts of a plan, but not an actual plan!

# Why Do People Usually Decide To Upgrade?



End of Support



Want a Feature



Being Proactive

# Product Lifecycle Matrix

<https://support.broadcom.com/group/ecx/productlifecycle>



## Product Lifecycle

📘 IMPORTANT: VMware End of Availability Announcements

Reset Search

☐ Show Entitled Products

Select Division

VMware vCenter Server

VMware Cloud Foundation x

Search by Description

7.0.0

Select Release Level Info

Select OS

GA Date Range x

EOS Date Range x

EOL Date Range x

Stabilization Date Range x

Supported Products

Show results

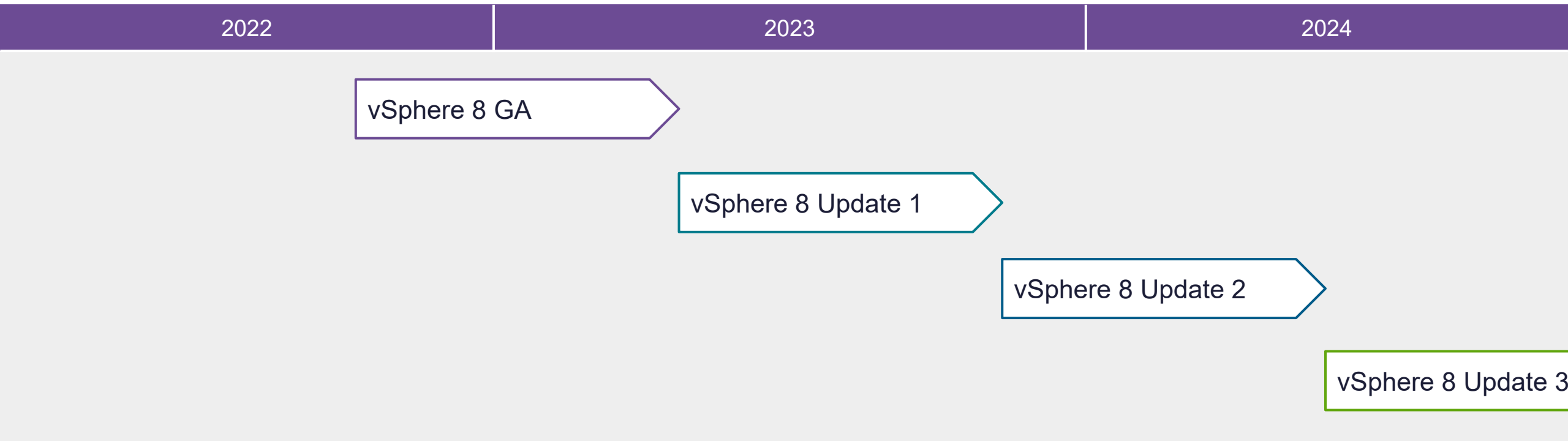
📘 Font color legend

Division ▾	Product ▴	Description ⓘ ▾	Release ▾	Release Level Info ▾	OS ▾	General Availability ▾	End of Service ▾	End of Life ▾	Stabilization Date ▾
VMware Cloud Foundation	VMware vCenter Server	VMware vCenter Server 7.0.0d	7.0.0d	203272		25-Aug-2020	02-Oct-2025	-	-
VMware Cloud Foundation	VMware vCenter Server	VMware vCenter Server 7.0.0c	7.0.0c	203271		30-Jul-2020	02-Oct-2025	-	-
VMware Cloud Foundation	VMware vCenter Server	VMware vCenter Server 7.0.0b	7.0.0b	203270		23-Jun-2020	02-Oct-2025	-	-



# vSphere Release Schedules

## Three Updates



vSphere 8 is currently at **Update 3...**

It receives patches for security & functional issues, and Tanzu updates, but is considered “feature complete.”

# Upgrade Paths to get to vSphere 8

Need to be at vSphere 6.7 or higher

Source	Destination	Upgrade Path
vSphere 5.5	vSphere 8	Not Supported
vSphere 6.0	vSphere 8	Not Supported
vSphere 6.5	vSphere 8	Not Supported
vSphere 6.7	vSphere 8	Supported
vSphere 7	vSphere 8	Supported

# Interoperability Matrix

<https://interopmatrix.broadcom.com/>



Compare

Select Solutions

Solution 1

Select a Solution

VMware vCenter Server

Select a Version

All versions

+ ADD SOLUTION

With

Add Platform/Solution

Platform/Solution 1

Select a Solution

VMware ESXi

"Also known as" ⓘ

Select a Version

All versions

+ ADD SOLUTION



Interoperability Result

Compatibility Guide →

☆ Add to My Favorite List ☒ Hide Legacy Releases ⓘ ☒ Hide Patch Releases

DOWNLOAD ▾ ... Collapse All

	VMware vCenter Server							
	8.0U3	8.0U2	8.0U1	8.0	7.0U3	7.0U2	7.0U1	7.0
VMware ESXi								
8.0U3	✓	—	—	—	—	—	—	—
8.0U2	✓	✓	—	—	—	—	—	—
8.0U1	✓	✓	✓	—	—	—	—	—
8.0	✓	✓	✓	✓	—	—	—	—
7.0U3	✓	✓	✓	✓	✓	✓	✓ ⓘ	✓ ⓘ
7.0U2	✓	✓	✓	✓	✓	✓	✓ ⓘ	✓ ⓘ
7.0U1	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓ ⓘ	✓ ⓘ	✓ ⓘ	✓ ⓘ	✓ ⓘ	✓ ⓘ



# Product Documentation

<https://techdocs.broadcom.com/>



docs.vmware.com

## Tech Docs Portal

Select your product



### CA Enterprise Software

Distributed, SaaS, and security solutions to plan, develop, test, secure, release, monitor, and manage enterprise digital services

[View More](#) 



### Mainframe Software

Mainframe software including automation, management, DevOps, and security

[View More](#) 



### Symantec Security Software

Symantec integrated cyber defense solutions for comprehensive threat protection and compliance

[View More](#) 



### VMware Cloud Infrastructure Software

Learn how to configure and use VMware Cloud Foundation to deploy and manage your software-defined Data Center (SDDC).

[View More](#) 



### Security and Load Balancing

by VMware  Broadcom  
Application load balancing, web



### Software Defined Edge

VeloCloud SASE,




### VMware Tanzu Software

Integrates and automates



### Carbon Black Software

On-prem and cloud-native

 / [VMware® Cloud Infrastructure Software](#)

# VMware® Cloud Infrastructure Software

Select your product



## Browse Categories

### VMware Cloud Foundation

Configure the cloud infrastructure stack of VMware Cloud Foundation for enterprise applications.

[View More](#) 

### VMware vSphere

Transform data centers into aggregated computing infrastructures, managing CPU, storage, and networking resources.

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### VMware vSAN

Enhance storage performance by aggregating local storage into a single shared pool across all hosts in a vSAN cluster.

[View More](#) 

### VMware Aria

Manage the cost, performance, configuration, and delivery of your multi-cloud infrastructure and applications.

[View More](#) 



[VMware® Cloud Infrastructure Software](#)[/ VMware vSphere](#)[/ VMware vSphere 8.0](#)[/ Release Notes](#)[/ VMware vSphere 8.0 Release Notes](#)

# VMware vSphere 8.0

[Version 8.0](#)[English](#)

## Topics



### Release Notes

#### VMware vSphere 8.0 Release Notes

[VMware vCenter Server Photon OS Security Patches](#)[VMware Host Client 2.5.0 Release Notes](#)[ESXi Update and Patch Release Notes](#)[vCenter Server Update and Patch Release Notes](#)[VMware Host Client Release Notes](#)[ESXi Installation and Setup](#)

by Broadcom

[VMware ESXi Upgrade](#)

# VMware vSphere 8.0 Release Notes

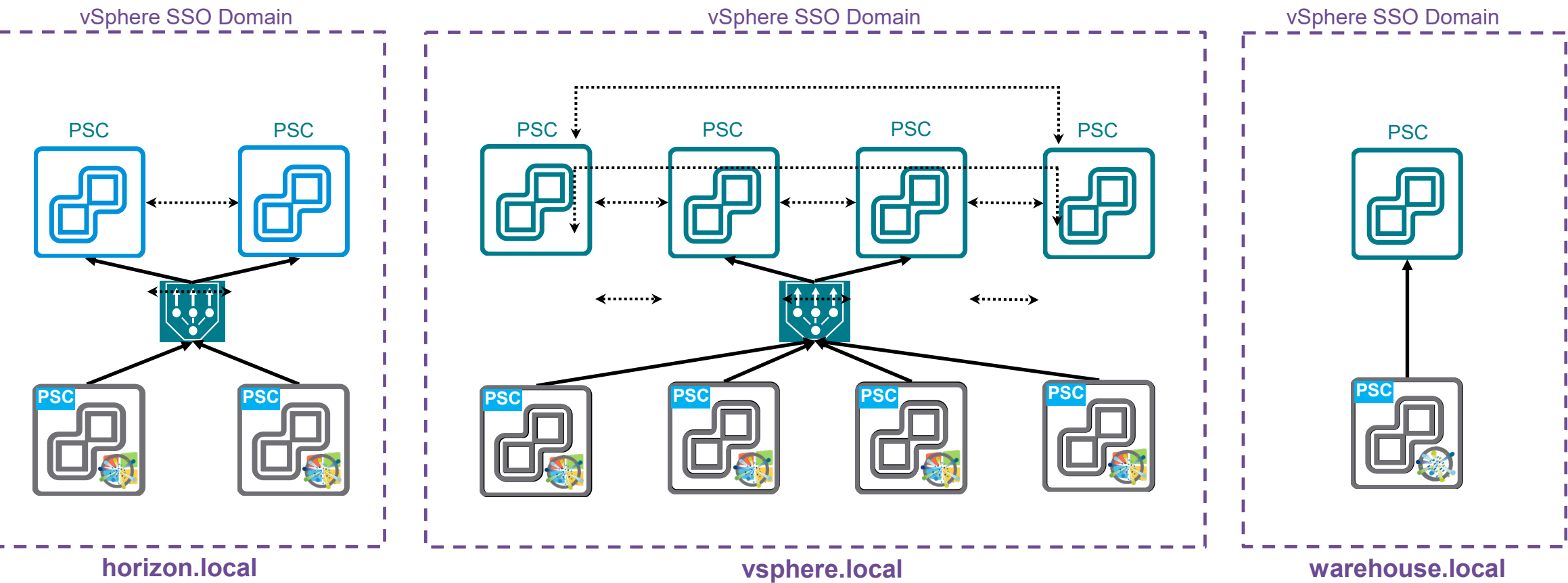
*Last Updated May 9, 2025*

This document contains the following sections

- [Introduction](#)
- [What's New](#)
- [General Availability](#)
- [Internationalization](#)
- [Compatibility](#)
- [Before You Begin](#)
- [Installation and Upgrades for This Release](#)
- [Open Source Components for vSphere 8.0](#)
- [Product Support Notices](#)
- [Known Issues](#)

# External PSC is Converged in vSphere 7+

Simplified SSO Topologies



# Compatibility Guide

<https://compatibilityguide.broadcom.com>



Global Search: ?

Enter text to search...

All Programs

Search

Select Desired Compatibility Guide



## CPU Series



[Reset](#)[View Results](#)[View Matrix](#)

Keyword

Product Release Version

☒ ESXi 8.0 U3

☐ ESXi 8.0 U2

☐ ESXi 8.0 U1

☐ ESXi 8.0

☐ ESXi 7.0 U3

☐ ESXi 7.0 U2

CPU Capabilities

☐ Capable of Legacy FT

☐ Supports SMP-FT



CPU Series

Cores/Threads

CPUID Info

CPUIDs

Supported Releases

[AMD EPYC 7001 Series](#)

32c/64t

17.01

0x00800F10

ESXi 8.0 U3

[AMD EPYC 7002/7Fx2/7Hx2 Series](#)

64c/128t

17.31

0x00830F10

ESXi 8.0 U3

[AMD EPYC 7003/7003X Series](#)

64C/128T

19.01

0x00A00F11,0x00A00F12

ESXi 8.0 U3

[AMD EPYC 8004 Series](#)

64c/128t

19.A0

0x00A10F11,0x00AA0F02

ESXi 8.0 U3

[AMD EPYC 9004 Series](#)

128c/256t

19.11, 19.A0

0x00A10F11,0x00A10F12,0x00AA0F02

ESXi 8.0 U3

[AMD EPYC 9005 Series](#)

192c/384t

1A.2, 1A.11

0x00B00F21,0x00B10F10

ESXi 8.0 U3

[AMD Ryzen Embedded V1000 Series](#)

4c/8t

17.11

0x00810F10

ESXi 8.0 U3

[Intel Atom C3000 Series](#)

16c/16t

6.5F

0x000506F0

ESXi 8.0 U3

[Intel Core i3/i5/i7-1100GRE Processor Series](#)

6.8C, 6.8D

0x000806C1,0x000806C2

ESXi 8.0 U3

[Intel Xeon 6500P/6700P \(Granite Rapids-SP\) Series](#)

86c/172t

6.AD.1

0x000A06D1

ESXi 8.0 U3

[Intel Xeon CPU Max 9400 \(Sapphire-Rapids-HBM\) Series](#)

56c/112t

6.8F.8

0x000806F8

ESXi 8.0 U3

# What If Your Hardware Isn't Listed?!



1

Hardware OEMs do  
the certification



2

Pay attention to  
device drivers more  
than CPUs



3

Is it possible to just  
try one?

## Might Also Be A Time To Consider...



Changing from  
Legacy to UEFI



Enabling  
Secure Boot



Installing  
TPM 2.0



Updating HW  
Settings

Upgrade or  
Rebuild ESXi?







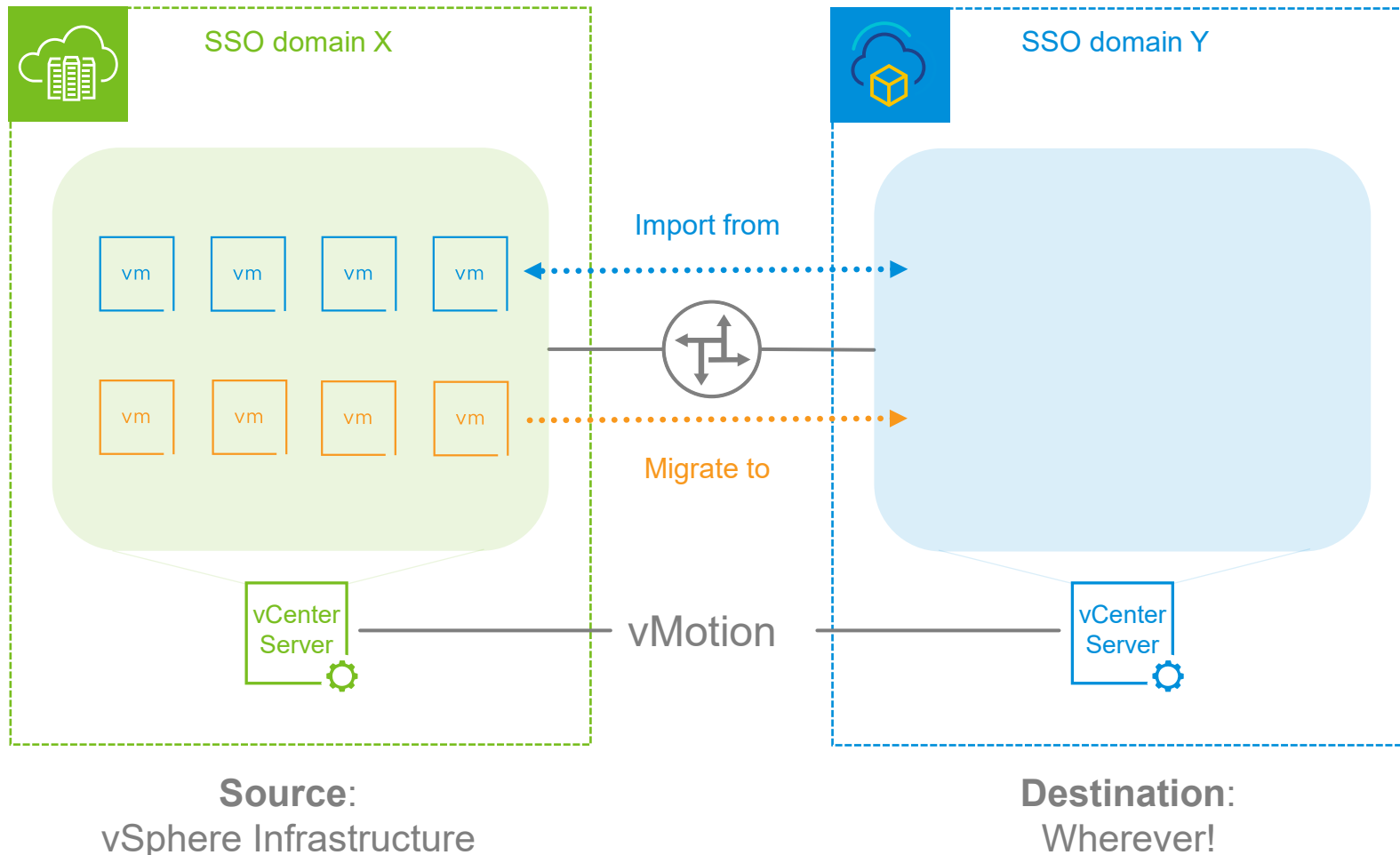


# Migration Methods

	Live	Warm	Cold
VMware HCX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
vMotion	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Cross-vC vMotion	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Site Recovery		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cloud DR		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Content Library			<input checked="" type="checkbox"/>

# Move Workloads Between Unrelated vSphere Instances

## Advanced Cross-vCenter vMotion



Import VMs from source

Migrate VMs to target

Live migrations from vSphere 6.0U3 and up, with UI integration since 7U1c.

Bulk migrations into VMware Cloud on AWS

Prerequisites for connectivity, bandwidth, latency/round trip time, DNS configuration

Cross vCenter vMotion needs  
the Distributed Switch versions  
**to be identical**

Ensure your **key providers** are  
available at the destination

[Search](#)

## VMware update sequence of vSphere products



Article ID: 330373



Updated On: 03-27-2025

### Products

[VMware vSphere ESXi](#)[VMware vCenter Server](#)

### Issue/Introduction

This article provides a list of articles including documentations that should help you better plan your vSphere environment upgrade with minimal downtime and effort.

[Search](#)

## Update Sequence for VMware vSphere 8.0 and Compatible VMware Products



Article ID: 308161



Updated On: 03-23-2025

### Products

[VMware vCenter Server](#)[VMware vSphere ESXi](#)

### Issue/Introduction

In an environment upgrading to VMware vSphere 8.0, perform the update sequence described in the Supported Update Sequence table.

Reference: [VMware Product Interoperability Matrix](#)

**Product Names:**

	vRealize Suite Lifecycle Manager	Identity Manager	vRealize Log Insight **	vRealize Operations Manager ***	vRealize Network Insight	vRealize Automation	VADP Backup Solution	vSphere Replication	Site Recovery Manager	NSX	vCenter Server	ESXi	VMware Tools	Virtual Hardware	vSAN On-disk Format
Sequence	1														
	2														
			3	3											
					4										
						5									
							6								
								7	7						
										8					
											9				
												10			
													11		
														12	12

# Upgrading vCenter Server

Bob's Big List of Little Things To Think About, Page 1

1. Is NTP set correctly on everything?
2. Do all your components have correct A & PTR records in DNS?
3. Do all your DHCP IPs have A & PTRs, too?
4. Do you know your appliance root passwords? Do they work? Did they expire?
5. Do you know your administrator@vsphere.local password? Does it work?
6. Do you know your ESXi root passwords? Do they work?
7. Do you know your KMS connection information?
8. Can you get to the consoles of your ESXi hosts?
9. Do you have a file-based backup of vCenter Server?  
Do you have an image-based backup of vCenter Server? You're sure?



# Upgrading vCenter Server

Bob's Big List of Little Things To Think About, Page 2

10. Do you have a spare IP address for the temporary appliance? Give it A & PTR, too.
11. Do you need firewall rules for the temporary appliance IP?
12. Are there triggered alarms or environment health check issues?
13. Are your third-party tools figured out?
14. Do you want to change the FQDN of vCenter Server in this process? (6.7U3+)
15. Are your target hosts at the right levels?
16. Do you need all your event history & performance data?  
Is the retention set correctly in vCenter Server for events, tasks, and performance?
17. Do you need to disable logins to vCenter Server?
18. Do you want to put DRS & HA in different modes? (Do NOT turn DRS off!)

# Upgrading vCenter Server

Bob's Big List of Little Things To Think About, Page 3

19. Will you need to rejoin a domain, or switch to AD over LDAPS?  
Do you have credentials for that? Is the new method tested?
20. Do you need a firewall/storage/DNS/AD admin on call?
21. Do you need a change freeze for workloads/apps, storage, network changes?
22. While vCenter Server is down how will you access VM consoles if needed?  
Do you need an extra staff member to handle this so you can focus on the upgrade?
23. Do you need a DRS rule to place vCenter Server & PSCs in a known location?
24. Do you have your upgrade process written down in a place that doesn't have a dependency on your vSphere environment?
25. Did you test the process using nested ESXi?
26. Do you have a backup copy of your Native Key Provider?

27. Did you remember  
that production is never  
really like test?

# Sample Process For Upgrading vCenter Server: Page 1

Not complete, add your own steps!

1. Day before: Did you need/want to remove third-party plugins?
2. Day before: Did you need/want to change database retention in vCenter Server?
3. Day before: Reboot your vCenter Servers & PSCs in-situ.
4. Disable non-administrator logins to vCenter Server.
5. Shut vCenter Servers & PSCs all down, take snapshots via ESXi (PowerCLI + DRS!) or clones if you are concerned about disk performance with snapshots.
6. Rename the old vCenter Server & PSCs to –OLD (so you can name the new ones correctly).
7. Power everything up, verify that it is working, no alarms.
8. Upgrade/Migrate.
9. Log in, ensure hosts reconnect, upgrade agents.

# Sample Process For Upgrading vCenter Server: Page 2

Not complete, add your own steps!

10. Check for updates in the VAMI & patch if available.
11. Check settings in VAMI (root expiration, logging, NTP)
12. Configure file-based backup, fix image backup jobs
13. Reinstall third-party tools
14. Fix authentication if necessary & restore logins
15. Fix DRS & HA settings
16. Ensure console access works
17. Wait a few days and remove the clones/snapshots/old vCenter & PSC VMs.
18. Reset administrator@vsphere.local and root passwords, store in password vault

Leave time between  
upgrading vCenter Server  
and ESXi



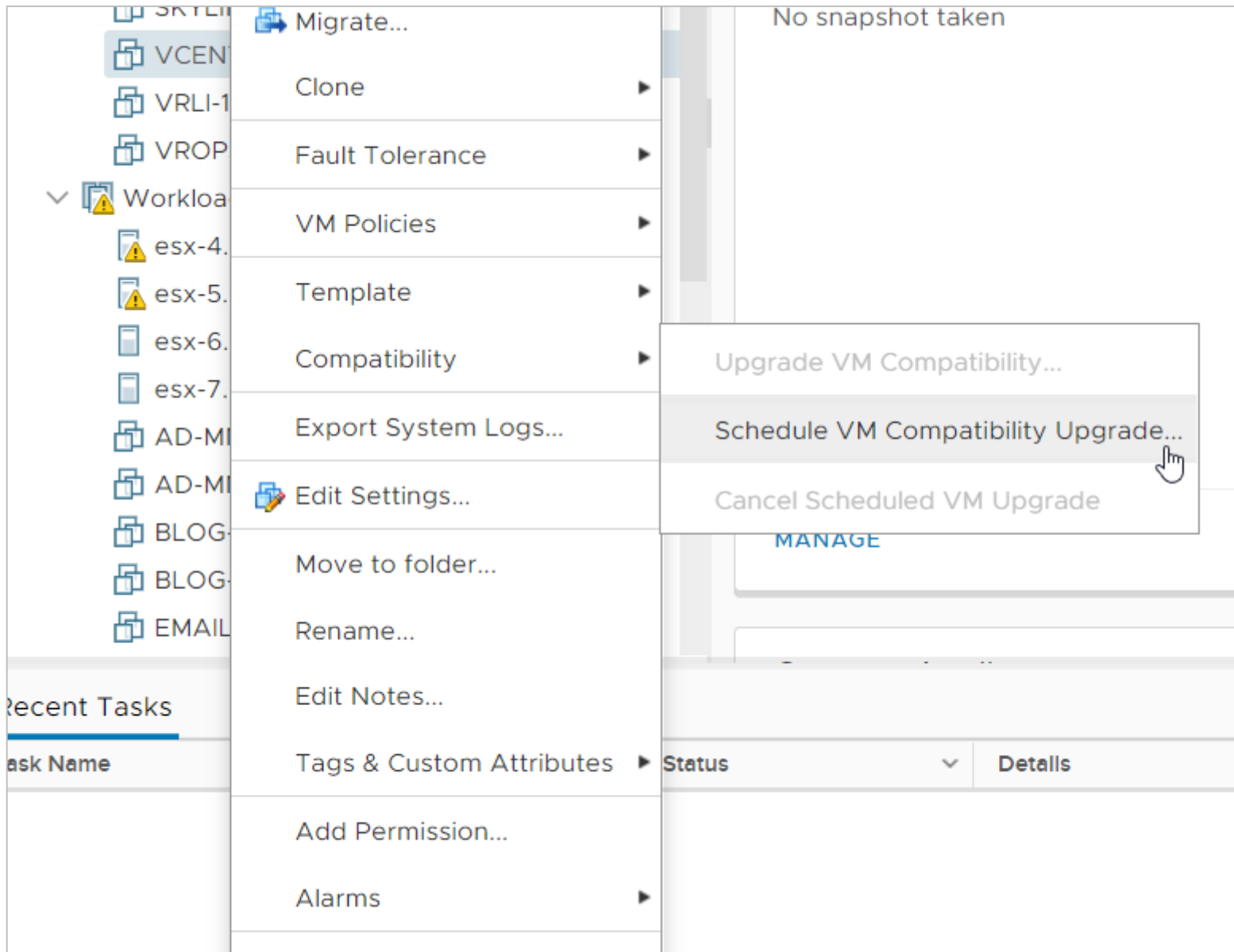
Plan to complete the  
cluster ESXi upgrade  
relatively quickly

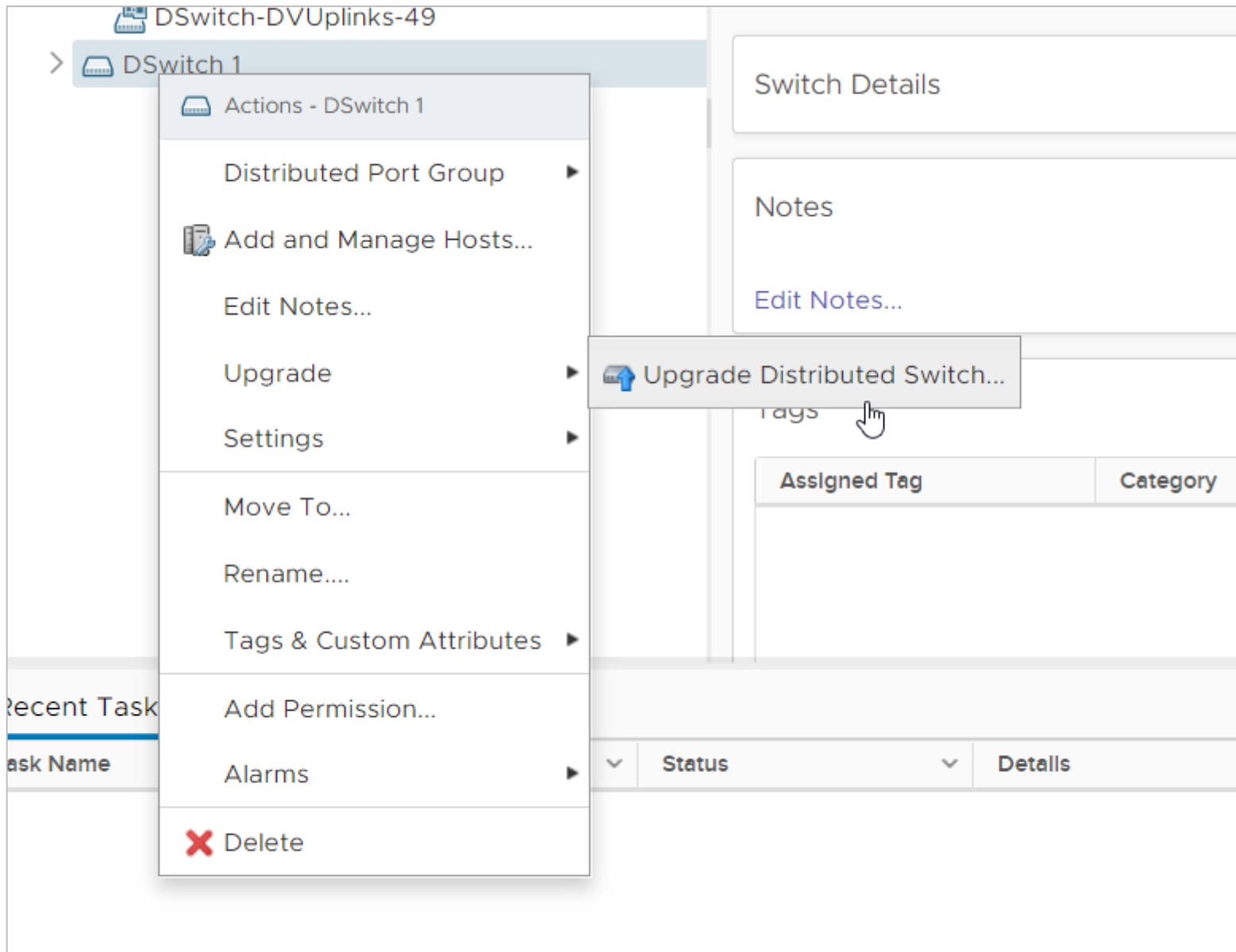


Don't upgrade VM  
hardware versions until  
you're done



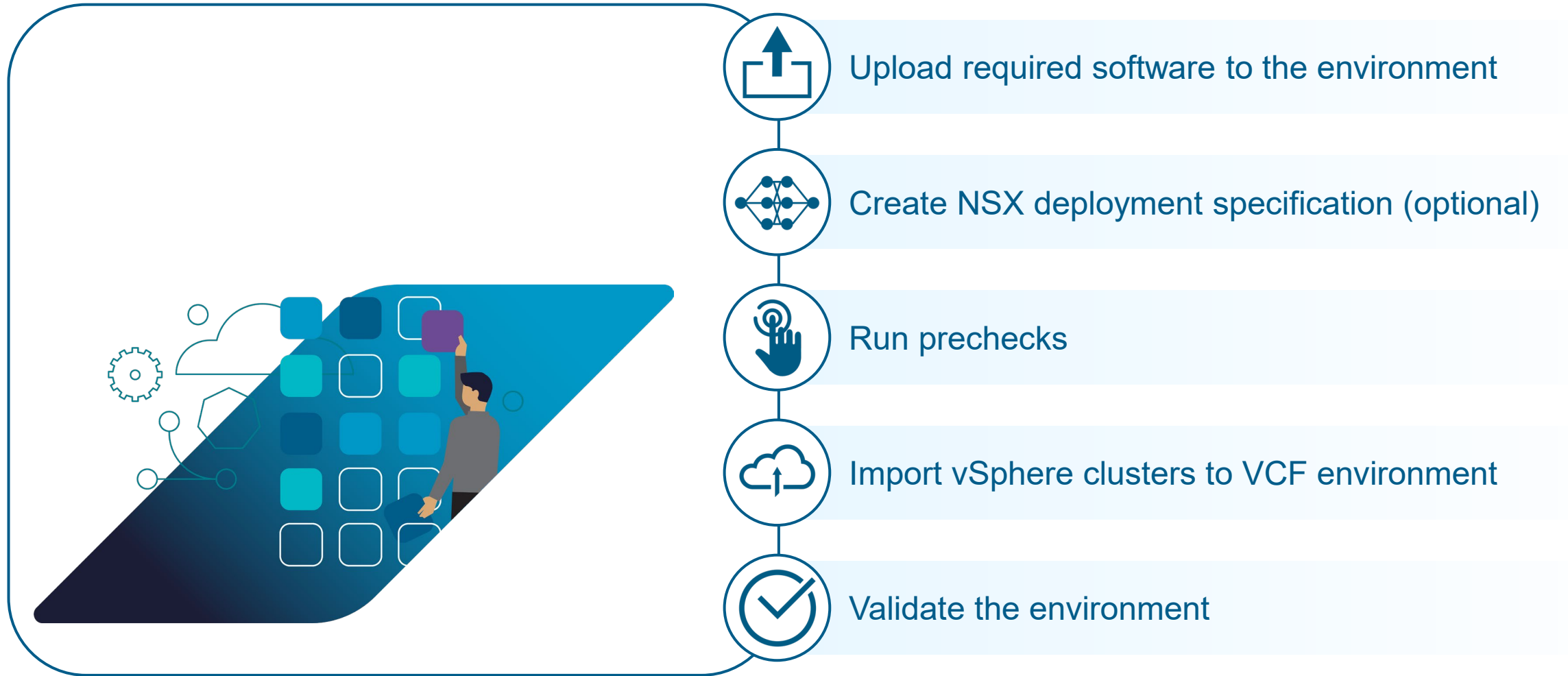






# Import vSphere into VMware Cloud Foundation

## Example Activities



# Additional Resources to Help You Move to VCF 5.2

## Read Blogs



How to Move to VCF 5.2 Faster



Scan to read



Expedite Moving Your vSphere Clusters to VCF



Scan to read



4 Steps to Converting a vSphere Environment to VCF



Scan to read

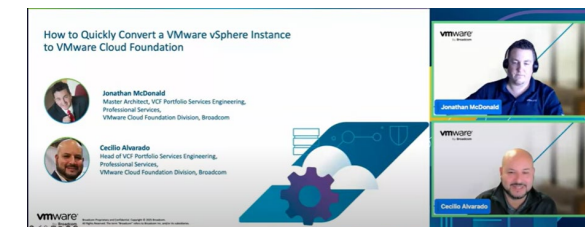
## Watch Webinars Replays

How to Upgrade VCF and Import Your vSphere Clusters



Scan to watch

How to Convert a vSphere Environment to VCF



Scan to watch

# Resources

# Security Hardening & Compliance Resources

<https://brcm.tech/vcf-security>

<https://github.com/vmware/vcf-security-and-compliance-guidelines/>

