



NSX-T Migration



Introduction

VMware® NSX-T 3.1 has arrived, and with it comes new tools and features to bring the public cloud experience to your enterprise's private cloud. Building on the technology of NSX-V, NSX-T delivers a full-stack networking and security platform that allows organizations to build cloud-scale networks while simplifying operations, leveraging modern applications, and strengthening security for east-west traffic inside the data center.

Why migrate to NSX-T?

The End of General Support date for the latest NSX Data Center for vSphere® release is set for January 16, 2022, and the End of Technical Guidance is set for January 16, 2023.

Furthermore, the way applications are architected and deployed has changed. Today, modern applications run on multiple clouds, making use of heterogeneous compute platforms such as containers, Virtual Machines (VMs), and bare metal. Frequent releases and rapid application deployment mean that the network must be agile and ready to support applications on any platform.

NSX-T enables your virtual cloud network to connect and protect applications across your data center, multcloud, bare metal, and container infrastructure.

The benefits of NSX-T



Scale out networking at a fraction of the cost and provide a public cloud-like experience on-premises with cloud-scale networking, security, and centralized network operations with NSX-T Federation.



Full-stack networking for modern distributed applications allows organizations to deploy converged networking capabilities, including distributed switching and routing, firewalling, load balancing, NAT, IPAM, and more for both VMs and containers.



Best-in-class security built into the infrastructure gives enterprises superior protection against the lateral movement of threats with stateful Layer 7 security controls that include IDS/IPS and security analytics via NSX Intelligence.



Networking and security automation simplifies network automation and management with a declarative policy model and a streamlined user experience.

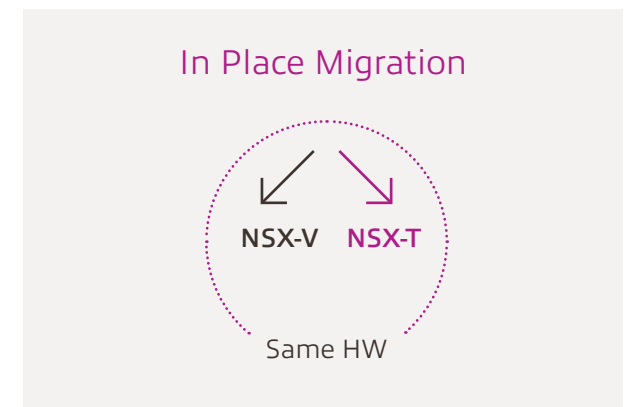
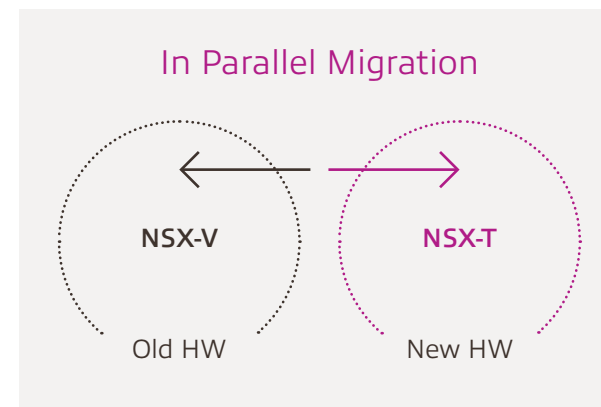
NSX-V to NSX-T migration

Timeline for migration

To achieve a smooth, successful migration, this e-guide will provide an overview of the two main approaches to NSX-T migration, outline considerations for migration, and lay out the tools available to support your organization in the process.

Two primary approaches to migration

There are two primary approaches to migrating to NSX-T: In Parallel Migration and In Place Migration.



In Parallel Migration involves deploying NSX-T infrastructure in parallel with existing NSX-V-based infrastructure.

It's important to note that while some components, such as management, of NSX-V and NSX-T can coexist, computer clusters running the workloads would be running on separate hardware.

Advantages of In Parallel Migration

Flexibility is the main advantage of an In Parallel approach to NSX-T migration and allows for two different options:

1. New workloads are deployed on NSX-T while the older workloads can die over time.
2. Lift and shift workloads over to the new NSX-T infrastructure.

The flexibility of In Parallel Migration allows for advanced planning, migration on demand, and consideration of workloads.

Downsides to In Parallel Migration

Despite its advantages, there are downsides to In Parallel Migration that should be considered:

1. Recreate topology and policy: Currently, topology and policy from the existing NSX-V cannot be leveraged. Instead, it needs to be created on the new NSX-T-based infrastructure.
2. Needs separate hardware (HW): NSX-T and NSX-V cannot coexist on a single host.
3. vMotion®: vMotion may be needed to move the existing workloads; however, vMotion has certain limitations that could result in downtime based on the type of vMotion approach available.
4. Managing policy: Organizations need to consider that a workload may exist in any of the two infrastructures. There may be a need for adding or removing new workloads and a need to change the security posture.
5. Managing two infrastructures: Organizations will have to plan for supporting two different environments for the duration of the migration.

Unlike In Parallel Migration, In Place Migration relies on NSX-T's built-in Migration Coordinator tool.

The Migration Coordinator tool, available since the 2.4 release of NSX-T, helps in replacing NSX-V, in place on existing hardware, with NSX-T. This tool also imports the existing configuration to apply on the new NSX-T-based infrastructure.

The Migration Coordinator tool also supports Maintenance Mode, which allows automatic placement of an ESXi host into Maintenance Mode and vMotion VMs off from the host before replacing the vSphere Installation Bundles (VIBs).

Steps to a successful migration

Before undertaking migration to NSX-T, review the following steps of a successful migration:

01

Plan your migration

02

Install NSX-T Manager appliance and NSX-T Edges

03

Import configuration from NSX-V

04

Apply configuration on NSX-T

05

Edge migration

06

Host migration

Migration tools

In addition to the following steps to a successful migration, consider deploying the tools and guidance from VMware to help minimize migration downtime. Migrate management and workload domains on new or existing hardware or using the Migration Coordinator.

Migration Coordinator

Built into NSX Manager, Migration Coordinator automates NSX-V to NSX-T In Place migrations. There are five main steps:



1.
Import
configuration



2.
Resolve
configuration



3.
Migrate
configuration



4.
Migrate edges



5.
Migrate hosts

For more information about [Migration Coordinator](#) and to see it in action, check out [this video](#).

Migration Simulator

Migration Simulator allows organizations to navigate the Migration Coordinator interface, perform prechecks, migrate to NSX-T, and verify success.

Insight's NSX-T workshop

For enterprises looking for additional support and guidance throughout the migration process, Insight's VMware NSX-V to NSX-T Strategy Workshop helps organizations conceptualize a VMware NSX-T Data Center™ implementation. This one-day whiteboard workshop session includes:

- ✓ Identifying migration strategies and recommended services
- ✓ Developing a strategic roadmap for NSX-T Data Center migration and implementation
- ✓ Discussing details such as architectural design changes and new feature sets of NSX-T Data Center
- ✓ Architecture for design change
- ✓ New feature set and tools available on NSX-T Data Center
- ✓ NSX Cloud design
- ✓ A customized implementation services estimate

NSX-T third-party technology partner integration considerations

Additionally, Insight offers broad expertise in many products that integrate with NSX and can facilitate the integration of VMware technology partners into NSX Data Center network virtualization and security platform in the management, control, and data planes. This results in a unified user experience and seamless integration with any cloud management platform.

Questions?

If you have questions about the migration process or are ready to get started, **contact Insight experts today.**



solutions.insight.com | insight.com