

دوره

# VMware NSX-T Data Center: Install, Configure, Manage

[[V۳.۰

مروری بر دوره

دوره VMware NSX-T Data Center: Install, Configure, Manage [V۳.۰

سرفصل ها

## ۱ Course Introduction

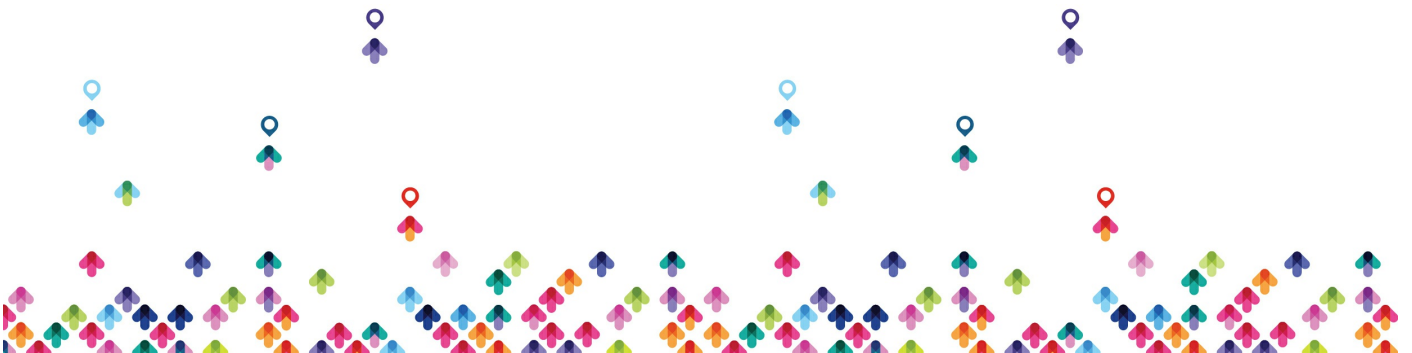
- Introductions and course logistics
- Course objectives

## ۲ VMware Virtual Cloud Network and NSX-T Data Center

- Introduce VMware's Virtual Cloud Network vision
- Discuss NSX-T Data Center solutions, use cases, and benefits
- Explain NSX-T Data Center architecture and components
- Describe VMware NSX® product portfolio and features
- Explain the management, control, data, and consumption planes and function

## ۳ Deployment Preparing the NSX-T Data Center Infrastructure

- Describe NSX Management Cluster
- Deploy VMware NSX® Manager™ nodes on VMware ESXi and KVM hypervisors
- Navigate through the NSX Manager UI



- Explain data-plane components such as N-VDS, transport nodes, transport zones, profiles, and more
- Perform transport node preparation and establish the data center infrastructure
- Verify transport node status and connectivity

#### ۴ NSX-T Data Center Logical Switching

- Introduce key components and terminology in logical switching
- Describe the function and types of L<sub>2</sub> segments
- Explain tunneling and the GENEVE encapsulation
- Configure logical segments and attach hosts using NSX Manager UI
- Describe the function and types of segment profiles
- Create segment profiles and apply them to segments and ports
- Explain the function of MAC, ARP, and TEP tables used in packet forwarding
- Demonstrate L<sub>2</sub> unicast packet flow
- Explain ARP suppression and BUM traffic handling

#### ۵ NSX-T Data Center Logical Routing

- Describe the logical routing function and use cases
- Introduce the two-tier routing architecture, topologies, and components
- Explain the Tier-0 and Tier-1 Gateway functions
- Describe the logical router components: Service Router and Distributed Router
- Discuss the architecture and function of VMware NSX® Edge™ nodes
- Discuss deployment options of NSX Edge nodes
- Configure NSX Edge nodes and create NSX Edge clusters
- Configure Tier-0 and Tier-1 Gateways
- Examine the single-tier and multitier packet flow



- Configure static routing and dynamic routing
- Enable ECMP on Tier- Gateway
- Describe NSX Edge HA, failure detection, and failback modes

#### ¶ NSX-T Data Center Bridging

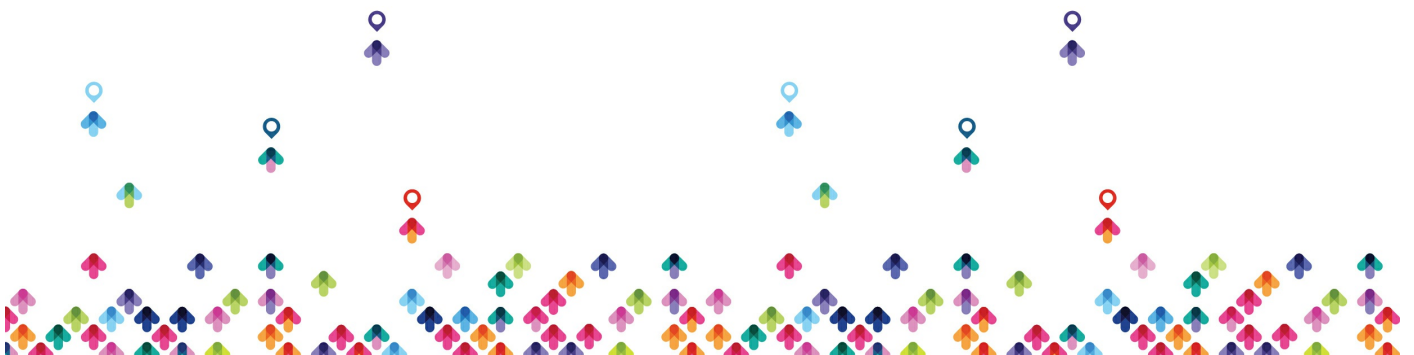
- Describe the function of logical bridging
- Discuss the logical bridging use cases
- Compare routing and bridging solutions
- Explain the components of logical bridging
- Create bridge clusters and bridge profiles

#### ∇ NSX-T Data Center Security

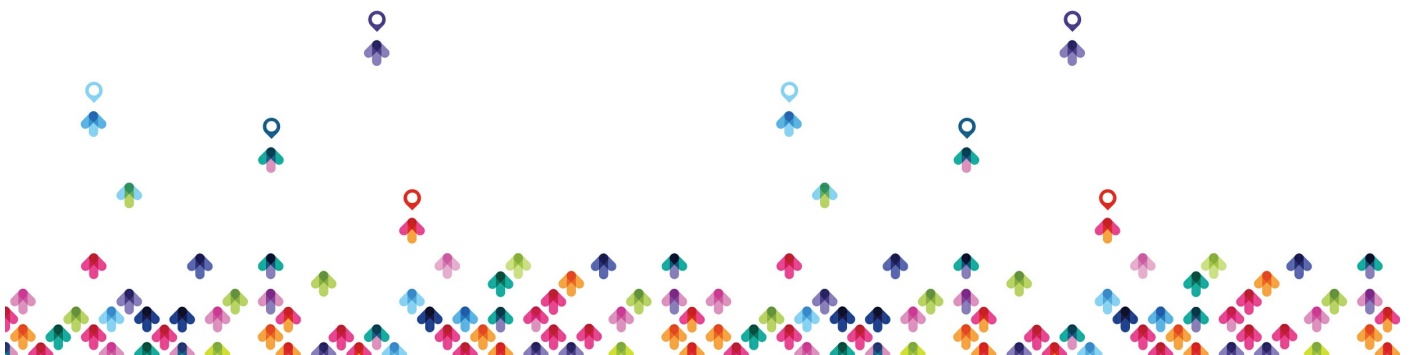
- Introduce the NSX-T Data Center security approach and model
- Describe the micro-segmentation benefits and use cases
- Describe the Distributed Firewall architecture, components, and function
- Configure Distributed Firewall sections and rules
- Describe the Gateway Firewall architecture, components, and function
- Configure Gateway Firewall sections and rules
- Describe URL analysis and distributed intrusion system importance and use-cases.
- Describe the service insertion functionality for east-west and north-south security
- Discuss the integration and benefits of partner security solutions with NSX-T Data Center

#### ∧ NSX-T Data Center Services

- Describe NSX-T Data Center services



- Explain and configure Network Address Translation (NAT) and NAT ۶۴
  - Explain and configure DNS and DHCP services
  - Describe the load-balancing function, topologies, components, and use cases
  - Configure L۴-L۷ load balancing
  - Discuss the IPSec VPN and L۲ VPN function and use cases
  - Configure IPSec VPN and L۲ VPN using NSX Manager UI
- ۹ NSX-T Data Center Monitoring
- Explain the importance and functionality of VMware NSX® Intelligence™
  - Navigate through the NSX Topology UI and identify the various key elements in the UI
  - Discuss the importance and use-cases of alarms and events
- ۱۰ NSX-T Data Center User and Role Management
- Describe the function and benefits of VMware Identity Manager in NSX-T Data Center
  - Integrate VMware Identity Manager with NSX-T Data Center
  - Integrate LDAP with NSX-T Data Center
  - Identify the various types of users, authentication policies, and permissions
  - Use role-based access control to restrict user access
  - Explain the built-in roles in VMware Identity Manager and role assignment to users
- ۱۱ NSX-T Data Center Federation
- Introduce the NSX-T Data Center Federation key concepts, terminology, and use-cases.
  - Explain the onboarding process of NSX-T Data Center Federation



- Describe the NSX-T Data Center Federation switching and routing functions.
- Describe the NSX-T Data Center Federation security concepts and routing functions

## پیش نیازها

- گذراندن دوره ۲۰۰-۳۰۱ CCNA و یا بهره مندی از دانشی معادل آن
- بهره مندی از دانش یا مهارت مجازی سازی در سطح مدرک VMware-VCP

