TechyEdz Solutions
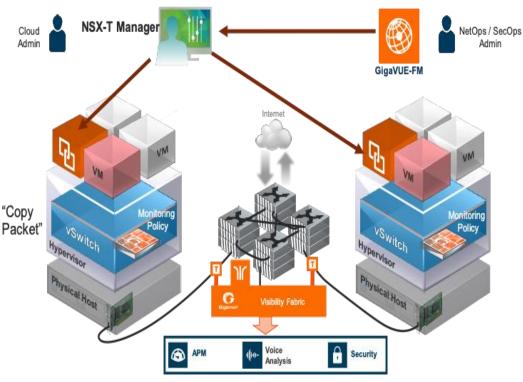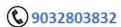
Training | Consulting | Developement | Outsourcing

VMware NSX-T

VMware NSX-T Data Centre: Install, Configure, Manage [V3.0]

✚ Course Overview:

This course provides comprehensive training on how to install, configure, and manage a VMware NSX-T™ Data Centre environment. This course covers key NSX-T Data Centre features and functionality offered in the NSX-T Data Centre 3.0 release, including the overall infrastructure, logical switching, logical routing, networking and security services, micro-segmentation and firewalls, and more.

1. **Course Introduction**
   - ➤ Introductions and course logistics
   - ➤ Course objectives

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

3. **Deployment Preparing the NSX-T Data Centre 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 Centre infrastructure
   - ➤ Verify transport node status and connectivity

4. **NSX-T Data Centre Logical Switching**
   - ➤ Introduce key components and terminology in logical switching
   - ➤ Describe the function and types of L2 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 L2 unicast packet flow
> ➢ Explain ARP suppression and BUM traffic handling

5. NSX-T Data Centre 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-0 Gateway
> ➢ Describe NSX Edge HA, failure detection, and failback modes

6. NSX-T Data Centre 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

7. NSX-T Data Centre Security
> ➢ Introduce the NSX-T Data Centre 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 Centre

8. NSX-T Data Centre Services
- Describe NSX-T Data Centre services
- Explain and configure Network Address Translation (NAT) and NAT 64
- Explain and configure DNS and DHCP services
- Describe the load-balancing function, topologies, components, and use cases
- Configure L4-L7 load balancing
- Discuss the IPSec VPN and L2 VPN function and use cases
- Configure IPSec VPN and L2 VPN using NSX Manager UI

9. NSX-T Data Centre 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

10. NSX-T Data Centre User and Role Management
- Describe the function and benefits of VMware Identity Manager in NSX-T Data Centre
- Integrate VMware Identity Manager with NSX-T Data Centre
- Integrate LDAP with NSX-T Data Centre
- 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

11. NSX-T Data Centre Federation
- Introduce the NSX-T Data Centre Federation key concepts, terminology, and use-cases.
- Explain the onboarding process of NSX-T Data Centre Federation

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

✦ **Prerequisites:**
- ➢ Good understanding of TCP/IP services and network security and working experience with firewalls
- ➢ Working experience of enterprise switching and routing
- ➢ VMware Data Centre Virtualization Fundamentals
- ➢ VMware Introduction to Network Virtualization with NSX
- ➢ VMware Network Virtualization Fundamentals

✦ **Who should Attend:**
- ➢ Experienced system administrators or network administrators

✦ **Number of hours: 40hrs**

✦ **Key Features:**
- ➢ One to One Training
- ➢ Online Training
- ➢ Fastrack & Normal Track
- ➢ Resume Modification
- ➢ Mock Interviews
- ➢ Video Tutorials
- ➢ Materials
- ➢ Real Time Projects
- ➢ Virtual Live Experience
- ➢ Preparing for Certification