20741: Networking with Windows Server 2016 Boot Camp

Course Details

Course Outline

1. **Planning and implementing an IPv4 network**
   - Planning IPv4 addressing
   - Configuring an IPv4 host
   - Managing and troubleshooting IPv4 network connectivity
   - o **Lab : Planning an IPv4 network**
   - Planning the IPv4 address assignments
   - o **Lab : Implementing and troubleshooting an IPv4 network**
   - Verifying IPv4
   - Troubleshooting IPv4

2. **Implementing DHCP**
   - Overview of the DHCP server role
   - Deploying DHCP
   - Managing and troubleshooting DHCP
   - o **Lab : Implementing DHCP**
   - Planning a DHCP server implementation
   - Implementing the DHCP configuration
   - Validating the DHCP implementation

3. **Implementing IPv6**
   - Overview of IPv6 addressing
   - Configuring an IPv6 host
   - Implementing IPv6 and IPv4 coexistence
   - Transitioning from IPv4 to IPv6
   - o **Lab : Configuring and evaluating IPv6 transition technologies**
   - Reviewing the default IPv6 configuration
   - Implementing DHCPv6
   - Configuring network integration by using ISATAP
   - Configuring native IPv6 connectivity
   - Configuring 6to4 connectivity

4. **Implementing DNS**
   - Implementing DNS servers
   - Configuring zones in DNS
   - Configuring name resolution between DNS zones
   - Configuring DNS integration with Active Directory Domain Services (AD DS)
   - Configuring advanced DNS settings
   o **Lab : Planning and implementing name resolution by using DNS**
   - Planning DNS name resolution
   - Implementing DNS servers and zones
   o **Lab : Integrating DNS with Active Directory**
   - Integrating DNS with Active Directory
   o **Lab : Configuring advanced DNS settings**
   - Configuring DNS policies
   - Validating the DNS implementation
   - Troubleshooting DNS

5. **Implementing and managing IPAM**
   - Overview of IPAM
   - Deploying IPAM
   - Managing IP address spaces by using IPAM
   o **Lab : Implementing IPAM**
   - Installing the IPAM Server feature
   - Provisioning the IPAM Server
   - Managing IP address spaces by using IPAM

6. **Remote access in Windows Server 2016**
   - Overview of remote access
   - Implementing the Web Application Proxy
   o **Lab : Implementing Web Application Proxy**
   - Implementing Web Application Proxy
   - Validating the Web Application Proxy deployment

7. **Implementing DirectAccess**
   - Overview of DirectAccess
   - Implementing DirectAccess by using the Getting Started Wizard
   - Implementing and managing an advanced DirectAccess infrastructure

- o **Lab : Implementing DirectAccess by using the Getting Started Wizard**
- Verifying readiness for a DirectAccess deployment
- Configuring DirectAccess
- Validating the DirectAccess deployment
- o **Lab : Deploying an advanced DirectAccess solution**
- Preparing the environment for DirectAccess
- Implementing the advanced DirectAccess infrastructure
- Validating the DirectAccess deployment

8. **Implementing VPNs**
   - Planning VPNs
   - Implementing VPNs
   - o **Lab : Implementing VPN**
   - Implementing VPN
   - Validating the VPN deployment
   - Troubleshooting VPN access

9. **Implementing networking for branch offices**
   - Networking features and considerations for branch offices
   - Implementing Distributed File System (DFS) for branch offices
   - Implementing BranchCache for branch offices
   - o **Lab : Implementing DFS for branch offices**
   - Implementing DFS
   - Validating the deployment
   - o **Lab : Implementing BranchCache**
   - Implementing BranchCache
   - Validating the deployment

10. **Configuring advanced networking features**
    - Overview of high performance networking features
    - Configuring advanced Microsoft Hyper-V networking features
    - o **Lab : Configuring advanced Hyper-V networking features**
    - Creating and using Hyper-V virtual switches
    - Configuring and using the advanced features of a virtual switch

11. **Implementing Software Defined Networking**
    - Overview of SDN.

- Implementing network virtualization
- Implementing Network Controller
- **Lab : Deploying Network Controller**
- Preparing to deploy Network Controller
- Deploying Network Controller