

Windows Server Security And Maintenance

31. Explain the process of installing and configuring Hyper-V virtualization in Windows Server 2016.

Steps:

1. Install the Hyper-V Role:
 - Open Server Manager > Add Roles and Features.
 - Select Role-based or feature-based installation.
 - Choose the local server.
 - In Server Roles, check Hyper-V.
 - Add required features and proceed through the wizard.
 - Restart the server if prompted.
2. Configure Hyper-V Settings:
 - Open Hyper-V Manager.
 - Set Virtual Switch Manager for networking.
 - Create Virtual Machines (VMs) via “New > Virtual Machine” wizard.
 - Configure VM settings (memory, CPU, disk, ISO for OS installation).

32. How do you monitor server performance and manage event logs in Windows Server?

- Performance Monitoring:
 - Use Performance Monitor (perfmon.msc) to track CPU, memory, disk I/O, etc.
 - Set up Data Collector Sets for long-term monitoring.
- Event Logs:
 - Open Event Viewer (eventvwr.msc).
 - Monitor logs like System, Application, Security.
 - Use custom views or filters for specific issues.
 - Enable event subscriptions for central log management.

33. Describe the different types of storage options available in Windows Server.

- Basic Disk & Dynamic Disk

- NTFS and ReFS File Systems
- Storage Spaces: Create virtual disks from physical drives.
- SAN/NAS: External storage via iSCSI or SMB.
- VHD/VHDX Files: Used with Hyper-V.
- Cluster Shared Volumes (CSV): For failover clusters.

34. What is the role of File Server in Windows Server, and how do you configure it?

- Role:
 - Centralized file storage and sharing.
 - Manages file access, permissions, and quotas.
- Configuration Steps:
 1. Add File and Storage Services role via Server Manager.
 2. Create shared folders and set permissions (NTFS & Share).
 3. Enable features like File Server Resource Manager for quotas and file screening.
 4. Configure Access-based Enumeration (ABE) and Shadow Copies.

35. Explain the process of implementing and managing Distributed File System (DFS) in Windows Server 2016.

- DFS (Distributed File System) has two components:
 - DFS Namespaces: Create a unified folder structure.
 - DFS Replication: Replicate files across multiple servers.
- Steps:
 1. Install DFS Namespace and DFS Replication roles.
 2. Open DFS Management.
 3. Create a Namespace (domain-based or standalone).
 4. Add folders and targets (shared folders).
 5. Set up Replication Groups and configure replication topology and schedule.

36. Discuss the built-in backup and recovery options available in Windows Server 2016 or 2019.

- Built-in Tools:

- Windows Server Backup (WSB): GUI-based tool for full or partial backups.
- wbadmin CLI tool.
- System Image Recovery via Windows Recovery Environment.
- Volume Shadow Copy for previous versions of files.
- Bare Metal Recovery for complete system restore.

37. How do you configure Windows Server Backup to back up critical data?

1. Install Windows Server Backup via Server Manager.
2. Open WSB and choose Backup Schedule or Backup Once.
3. Choose Custom Backup, select critical data (folders, system state).
4. Choose destination (local drive, external disk, or network share).
5. Configure backup schedule (daily/hourly).
6. Complete the wizard and verify backup completion.

38. Explain the steps for restoring files and folders using Windows Server Backup.

1. Open Windows Server Backup.
2. Select Recover.
3. Choose recovery options: local server or another server.
4. Specify backup date and recovery type (files, volumes, system state).
5. Choose files/folders to restore and set destination (original or alternate).
6. Start the restore process.

39. What are some common troubleshooting techniques for Windows Server startup issues?

- Common Techniques:
 - Boot into Safe Mode or Last Known Good Configuration.
 - Use Startup Repair from Windows installation media.
 - Check Event Viewer or dump files.
 - Disable faulty drivers or services using MSConfig.
 - Restore system using System Restore or Windows Backup.

40. How do you troubleshoot network connectivity problems in Windows Server?

- Check IP settings with `ipconfig /all`.
- Use `ping`, `tracert`, or `nslookup` for diagnostics.
- Verify firewall settings (Windows Defender Firewall).
- Check NIC drivers in Device Manager.
- Ensure correct DNS and DHCP configurations.
- Restart network services: `net stop/start dnscache, dhcp`, etc.

41. Discuss common Active Directory-related issues and their troubleshooting steps.

- Common Issues:
 - Replication failures (check with `repadmin /replsummary`).
 - DNS misconfigurations.
 - Time synchronization issues.
 - Account lockouts.
- Troubleshooting:
 - Use `dcdiag` to diagnose DC health.
 - Check Event Viewer > Directory Services.
 - Validate replication with `repadmin`.
 - Use Active Directory Sites and Services to verify topology.

42. Explain how to troubleshoot performance problems on Windows Server 2016 or 2019.

- Steps:
 - Check Task Manager and Resource Monitor for high resource usage.
 - Use Performance Monitor for detailed metrics.
 - Analyze disk latency, memory usage, CPU bottlenecks.
 - Review Event Logs for hardware or application warnings.
 - Use Windows Admin Center or 3rd-party tools (e.g., SolarWinds) for advanced diagnostics.
 - Disable or remove unnecessary services/startup programs.