CAPSTONE CHECKLIST

Contents

Create a Management VM:

☒Install Windows 10 Virtual Machine.

☒Attach both Management and LAN Network Adapters.

☒Install RSAT Tools.

Creating NAT Firewall/Router:

☒Download and install pfSense.

☒Configure network interfaces.

☒Create firewall aliases.

☒Create firewall rules.

☒Verify that the configuration is working.

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Configure Virtual Networking:

☒Plan the virtual network.

☒Plan out any IP addresses for devices on the network.

☒Determine any needed virtual switches.

Create a Primary Domain Controller:

☒Install Windows Server using a differencing disk.

☒Perform post installation tasks.

☒Attach a secondary disk for the database storage.

☒Install the Active Directory Domain Services role.

☒Promote DC1 to a domain controller.

☒Create users and computer objects.

☒Verify your configuration is working as planned.

Create an OU Structure in ADUC:

☒Plan out domain organizational unit structure.

☒Create the organizational units and security groups.

☒Use AGDLP structure for secure for security groups and file permissions.

☒Create a security groups.

Create and configure a CentOS DHCP Server:

☒Download and install CentOS7 ISO.

☒Create VM using CentOS install ISO.

☒Install realmd to join cap.tsp domain.

☒Configure sudo permissions for your security groups.

☒Install and configure DHCP server.

☒Configure a DHCP IP range.

☒Create your DHCP reservations for all virtual machines on the network.

☒Verify that your DHCP is working.

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Configure Domain Name System:

☒Create a record on 485-DC1 that point to all servers in the network.

☒Verify a records work by pinging each alias.

Create SAN with RAID6 Array and iSCSI Target:

☒Install Windows Server using a differencing disk or an ISO.

☒Perform post installation tasks.

☒Attach 6x 45GB disks for RAID6 array.

☒Install the iSCSI Target role.

☒Enable jumbo frames on the iSCSI network adapter.

☒Create a storage pool called production.

☒Create virtual RAID6 disk on production pool named VirtualDisk.

☒Create two iSCSI Virtual Disks:

☒Quorum.

☒VMStorage.

☒Create iSCSI targets for each disk.

Create Server Core Nested Hyper-V Hosts:

☒Install Windows Server on two VMs using differencing disks.

☒Attach network adapters.

☒LAN.

☒iSCSI.

☒HB.

☒LM.

☒Perform post installation tasks.

☒Enable jumbo frames on the iSCSI Adapter.

☒Enable the MSiSCSI service and connect to both iSCSI Targets on the SAN.

☒Initialize and create a volume on the iSCSI disks.

☒Search enable nested virtualization from host machine for HV1/HV2.

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☒Install Hyper-V and Failover Clustering roles.

Configure a Hyper-V Failover Cluster:

☒Cluster HV1 and HV2 together into a cluster named HVCluster.

☒Configure all networks in the cluster.

☒Copy over parent disk/ISO from host machine to shared cluster storage.

☒Create 3 nested virtual machines using the windows server core parent disk. Perform the standard post installation tasks on all 3.

  ☒DC2.

  ☒FS1.

  ☐FS2.

Create 2 File Servers in a Failover Cluster with a VHD Set:

☐Create a VHD set disk for the file server VMs.

☐Attach the VHD set as a shared disk to each of the file server VMs.

☐Cluster the file server VM's together in a cluster named FSCluster.

☒Create a file share called company data.

Configure Company Share with AGDLP permissions:

☒Create 3 folders on the company data share.

☒IT Management.

☒IT Service Desk.

☒FIN Management.

☒Set appropriate permissions for each folder on the share.

Create and apply a Folder Redirection GPO:

☒Create a group policy object that redirects the desktop and documents folders to a folder on the company share.

☒Test the GPO up by running "gpupdate /force" on all domain computers.

Test share and folder NTFS permissions through a group policy-mapped drive:

☒Create a group policy object that adds a mapped network drive to each domain user.

☒Test the GPO by running "gpupdate /force" on all domain computers.

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Create a secondary Server Domain Controller (core):

☒Using the DC2 nested VM, install active directory domain services and promote it to a domain controller.

Test redundancy:

☒Test SAN Redundancy by removing 2 of the 6 disks and verifying that both the Hyper-V and File Server clusters are still operational.