

Clustering

Clustering servers together allows for workloads to be spread across multiple machines. This motivation can assist with redundancy, with computing load, to help with maintenance, and many other things. In this lab, we'll setup a cluster inside of vCenter and see how we can migrate machines back and forth.

ToDo

You should have an environment already operational with vCenter Server, Active Directory, and multiple ESXi servers

Storage Configuration

- Create a new vmKernel interface on VLAN 3695 using the same vSwitch as your WAN and LAN port groups use. Name the new port group iSCSI. Assign it the specified IP address:
 - Your IP address for your iSCSI vmKernel interface will be determined by your server number. This is NOT ESX01 and 02, it's found in the server assignments spreadsheet
 - Use your server number to populate the last octet of: 172.16.89.1XX
 - For example, if you have server 23, your vmKernel IP would be: 172.16.89.123
 - For example, if you have server 2, your vmKernel IP would be: 172.16.89.102
 - For example, if you have server 10, your vmKernel IP would be: 172.16.89.110
- Add a Software iSCSI adapter to your storage controllers
- Attach your new iSCSI port group to the Software iSCSI controller
- Add the address 172.16.89.10 as an iSCSI target/server
- Rescan the iSCSI HBA
- Mount your new datastore, name it iSCSI

Cluster Creation

- Create a new cluster inside of your datacenter
- Add both hosts to the cluster
- Create a new virtual switch attached to vmnic3 on ALL of your ESXi servers
- Create a new vmKernel interface & portgroup using the new virtual switch on ALL of your ESXi servers.
 - Enable vMotion on the new vmKernel interface. Assign an IP of your choosing, so long as it is not in the same subnet as the rest of your environment

VM Reconfiguration

- Once your cluster is up and running, migrate your Router/pfSense VM to the iSCSI datastore. You do not need to power it off.
- Once migrated to the iSCSI storage, migrate the pfSense VM from the ESXi server it currently resides on to another server in your cluster

Submissions

- **Submit one screenshot of the tasks or events tab of your pfSense VM that shows it was migrated successfully to the iSCSI storage and was successfully vMotioned to another server**