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REQUIREMENT FOR DEMO ENVIRONMENT

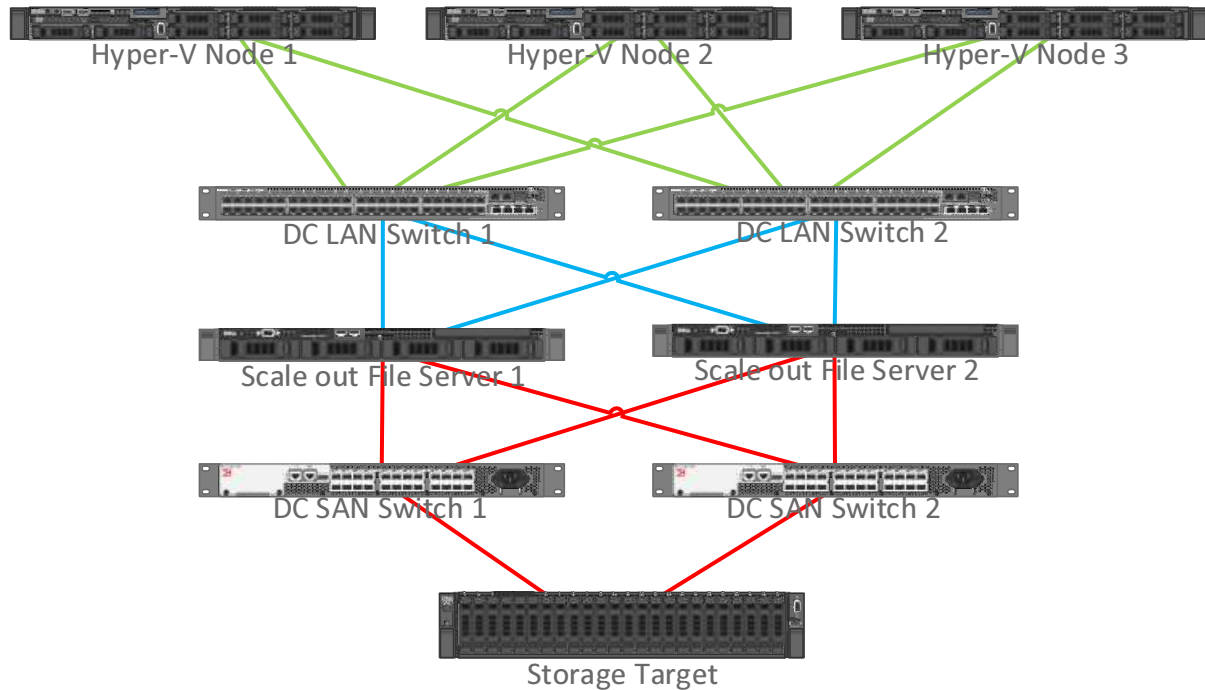
MICROSOFT AZURE PACK CUSTOMER DEMO

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Design view complete infrastructure

Starting for the testing environment are build out of three Hyper-V Nodes and two Scale out File Server. All servers are connected to Datacenter environment and SAN environment.



Requirements Network

VLANs

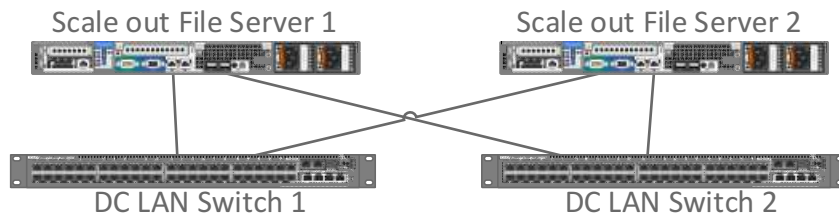
We require eight VLAN IDs as followed.

1	Hyper-V Storage Connection
2	Live Migration
3	Cluster shared Volume and Cluster Heartbeat
4	Server Management incl. connection to VPN and internet
5	Tenant Gateway to Internet
6	Needed for further cluster use
7	Needed for further cluster use
8	Needed for further cluster use

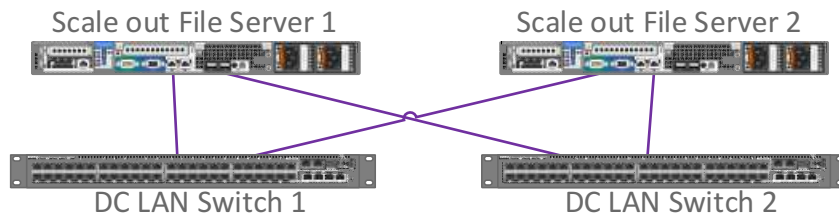
Scale out Fileserver

LAN Ports

There are two LAN Ports for management required. Those ports can be 1Gbit/s and must be connected to *Server Management* VLAN.

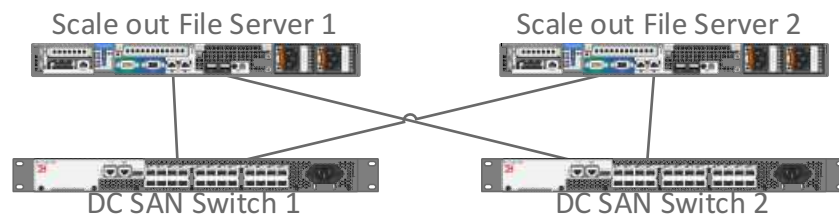


Additional to the LAN Ports for management there are more ports required for SMB 3.0.1 traffic. We require two 10 GBit/s ports per server for those traffic. These ports must be connected to *Hyper-V Storage Connection VLAN*



SAN Ports

There are two network ports per Server in SAN environment required. Those ports should be at least 10Gbit/s or more for iSCSI storage target or fiber Channel with 4Gbit/s or more.

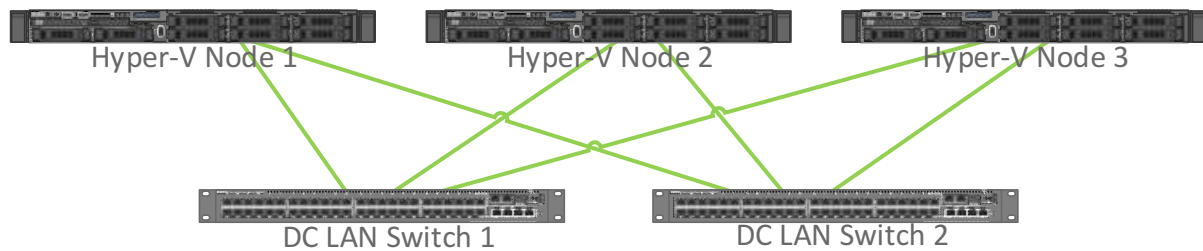


Hyper-V Nodes

LAN Ports

There are two LAN Ports for management and cluster heartbeat required. Those ports can be 1Gbit/s and must be connected to *Server Management* and *CSV and Cluster Heartbeat* VLAN. On the physical switch ports connected these servers, VLAN Trunk should be configured. We will provide converged networking also named software defined networking on the Hyper-V side as basement for Microsoft Azure Pack.

Additional to the LAN Ports for management there are more ports required for SMB 3.0.1, Livemigration and Tenant traffic. We require two 10 GBit/s ports per server for those traffic. These ports must be connected to *Hyper-V Storage Connection, Livemigration, Tenant Gateway to Internet* and *the other three* VLAN. On the physical switch ports connected these servers, VLAN Trunk should be configured. We will provide converged networking also named software defined networking on the Hyper-V side as basement for Microsoft Azure Pack.



Requirements Storage

As basic storage, we require at least of LUNs with following purpose and volume. The LUNs should be provided by Datacenter Storage Area Network and will be connected to the Scale out Fileserver.

The LUNs will be specified as followed:

Volume	Storage Class	Purpose
1 GB	Gold	Cluster Shared Volume Scale Out File Server
1 GB	Gold	Cluster Shared Volume Hyper-V Cluster
1000 GB	Platinum/Gold	Cluster Storage Demo Environment required VMs / Company VMs
300 GB	Gold	Cluster Storage for Customer VMs / Tenant 1
300 GB	Gold/Silver	Cluster Storage for Customer VMs / Tenant 2

Required Servers

Hyper-V Server

From a starting point we require three identical Servers with following parameters.

Component	Description	Amount
CPU	Intel Xeon Quad core 2,5 GHz with HT or better / Generation Westmere or newer (AMD equal)	Minimum 2 per server
RAM	ECC Memory on all System. Minimum Number of DIMMs per Server for low memory latency	Minimum 32GB per Server – 64GB would be better to avoid short upgrade cycle after deployment
Harddrive	SAS 146GB Disk in RAID 1 are required for OS	2 Disks per Server
Network Interfaces	1 GBit/s interfaces required for Cluster Heartbeat and Management	2 interfaces per server
Network Interfaces	10 GBit/s interfaces required for Cluster Storage and Livemigration	2 interfaces per server

Scale out File Server

From a starting point we require two identical Servers with following parameters.

Component	Description	Amount
CPU	Intel Xeon Quad core 2,5 GHz with HT or better / Generation Westmere or newer (AMD equal)	Minimum 2 per server
RAM	ECC Memory on all System. Minimum Number of DIMMs per Server for low memory latency	Minimum 8GB per Server
Harddrive	SAS 146GB Disk in RAID 1 are required for OS	2 Disks per Server
Harddrive	SATA 1TB in RAID 5 for local Backup	4 Disks per Server
Network Interfaces	1 GBit/s interfaces required for Cluster Heartbeat and Management	2 interfaces per server
Network Interfaces	10 GBit/s interfaces required for Cluster Storage	2 interfaces per server
Network Interfaces	10 GBit/s Ethernet or 4 GBit/s Fiber Chanel Ports for connection to Datacenter SAN	2 interfaces per server