CST8248 – Emerging Technologies

Assignment 2 – Project Quality and Testing

Purpose:

To continue planning for your project deployment, ensure that platforms and services are operating as expected.

Objectives:

Quality Assurance: As you progress through deploying platforms and services your network will increase in complexity. As a team you are tasked with developing a quality control plan to and ensure that your client receives the deliverable you have designed. Your quality assurance plan should include fit and finish items such as security configs (ie. Firewall) install files cleanup etc.

Hardware Plan: For each service detail the platform your team will be deploying and provide a table of specifications. (ie. CPU, Memory, Network, Storage etc.)

Service	Platform	Additional Service	CPU	Memory	Storage	Net1	Net2	Net3
Client	Windows10	Google Chrome	4	4	40	Blue		
Client	CentOS7	Ssh-client	2	4	20	Blue		
DNS-Master	CentOS7	ssh	4	4	20	Blue	Red	
DNS-Slave	CentOS7	ssh	4	4	20	Blue	Red	
Http	CentOS7	iptables	2	4	20	Blue	Red	
Https	CentOS7	iptables	2	4	20	Blue	Red	
LDAP	CentOS7	iptables	2	4	20	Blue	Red	

iSCSI	Window Server 2016	Google Chrome	2	4	40	Blue	Red	Green
vSphere	vSphere6.0		2	4	40	Blue	Red	Green
Veeam	Window Server 2016	RDP	2	4	40	Blue	Red	
Spiceworks	Window Server 2016	RDP	2	4	40	Blue	Red	Green
SMB	CentOS7	ssh	2	4	20	Blue	Red	Green
WAC	Window Server 2019	telnet	2	4	40	Blue	Red	

Network Plan: Provide a table of IP addresses as well as a network topology diagram detailing the connectivity between each platform and service.

Virtual Machine Name	Blue Network IP Address	Red Network IP Address
DOMINATORS_Windows10-Client	172.20.101.1	172.30.101.1
DOMINATORS_CentOS7-Client	172.20.101.4	172.30.101.4
DOMINATORS_CentOS7-DNS(Master)	172.20.101.2	172.30.101.2
DOMINATORS_CentOS7-DNS(Slave)	172.20.101.3	172.30.101.3
DOMINATORS-HTTP	172.20.101.5	172.30.101.5
DOMINATORS-HTTPS	172.20.101.6	172.30.101.6
DOMINATORS-LDAP	172.20.101.7	172.30.101.7
DOMINATORS-iCSCI	172.20.101.8	172.30.101.8
DOMINATORS-vSphere	172.20.101.9	172.30.101.9
DOMINATORS-Veeam	172.20.101.10	172.30.101.10

DOMINATORS-Spiceworks	172.20.101.11	172.30.101.11
DOMINATORS-SMB	172.20.101.12	172.30.101.12
DOMINATORS-WAC	172.20.101.13	172.30.101.13

TOPOLOGY DIAGRAM:

VCSA.ET.LAB

Master DNS Server
172.30.101.2

Slave DNS Server
172.30.101.3

LDAP Server
172.30.101.7

Firewall

172.30.101.0/16

CentOS7 Client
172.30.101.4

SMB Server
172.30.101.12

Windows10 Client
172.30.101.1

HTTP Server
172.30.101.5

iSCSI Server
172.30.101.8

HTTPS Web Server
172.30.101.6
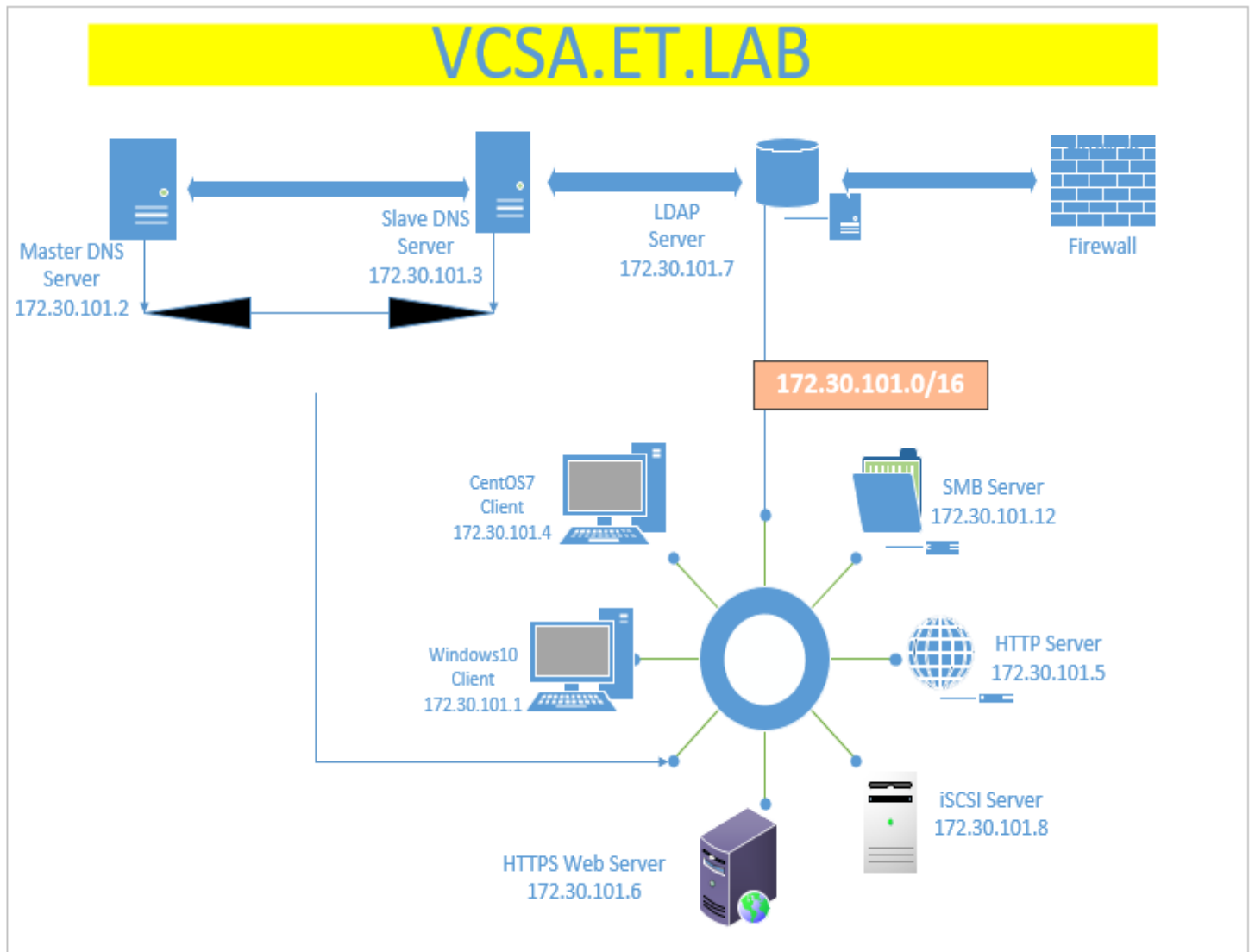
Test Plan: Provide a plan detailing how your team plans to ensure technical functionality. The test plan should compliment your quality assurance plan. Modify the rubric below to suit your needs when formulating this plan.

Quality Assurance:

This Project focusses on providing different types of services to customer using different type of virtual machines. For dns configuration, we will be using linux environment and so for some other services as well. For managing user accounts in Client machines, our group will be using ldap for storing their information and assigning them permissions.

Source	Destination	connectivity (icmp)	Service	Test command	Result	Comment	Test Date
DOMINATORS_CentOS7-Client	DOMINATORS_CentOS7-DNS(Master)	YES	DNS	Ping, Dig	**To be declared**	**In Progress**	**12-09-2020**
DOMINATORS_CentOS7-Client	DOMINATORS_CentOS7-DNS(Client)	YES	DNS	Ping, Dig	**To be declared**	**In Progress, It will be tested as a backup server while we explicitly shutdown the master dns server.**	**12-09-2020**
DOMINATORS_Windows10-Client	DOMINATORS-HTTP	Not Done Yet	HTTP	Test from web-browser and search for the web pages/site.	**To be declared**	**In Progress**	**15-09-2020**
DOMINATORS_CentOS7-Client	DOMINATORS-LDAP	Not Done Yet	LDAP	Test from client machine and search for the user's database.	**To be declared**	**In Progress**	**20-09-2020**
Rest has to be decided	-------	------	--------	---------------	------------	----------	---------