

ABC NETWORK

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Schema



Postulations

Proposals

Vendors

Budget

Postulations

System Under Design must accommodate:

- XYZ is a new subsidiary that needs a network environment.
- 2* 250 employee buildings
- utilize converged network services to cut costs
- clients paying with credit cards with production servers (data mining)
- IP based security cameras
- end user desktop environments (network printers, corporate servers)
- 1 gigabyte burst file transfer
- expects 99.999% up time
- mobility
- redundant systems, support staff for outages on payment systems

Proposal



Objective: Make a network for XYZ

Phase 1 - Formulation: Due Jan. 25, 2016

- on site visit to XYZ and estimate of project cost
- provide documentation for client options
- get approval from client ABC on final costs for project

Proposal



Phase 2 - The Plan: Due Feb. 10, 2016

- what resources will the users of XYZ require?
- provide documentation for client options
- get approval from client ABC on final costs for project

Proposal



Phase 3 - Design: Due Mar. 25, 2016

- design the network
- purchase equipment

Proposal



Phase 4 - Create the network: Due Jun. 1, 2016

- install equipment
- test/troubleshoot
- network up

Proposal

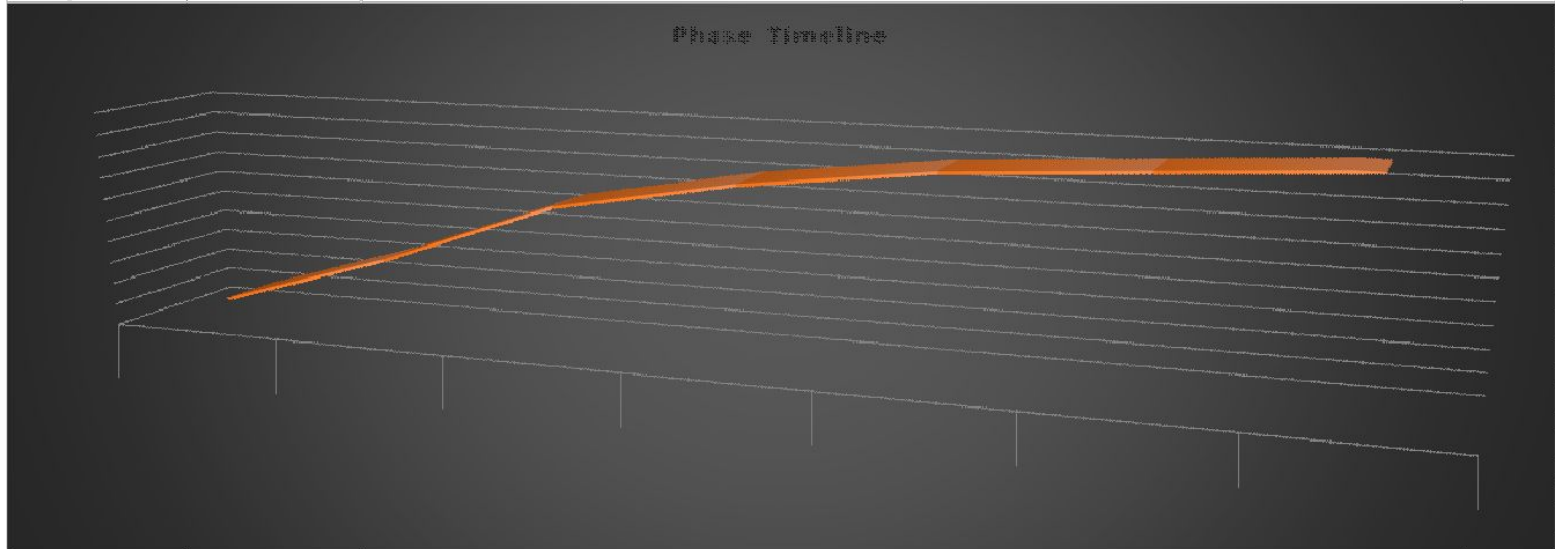


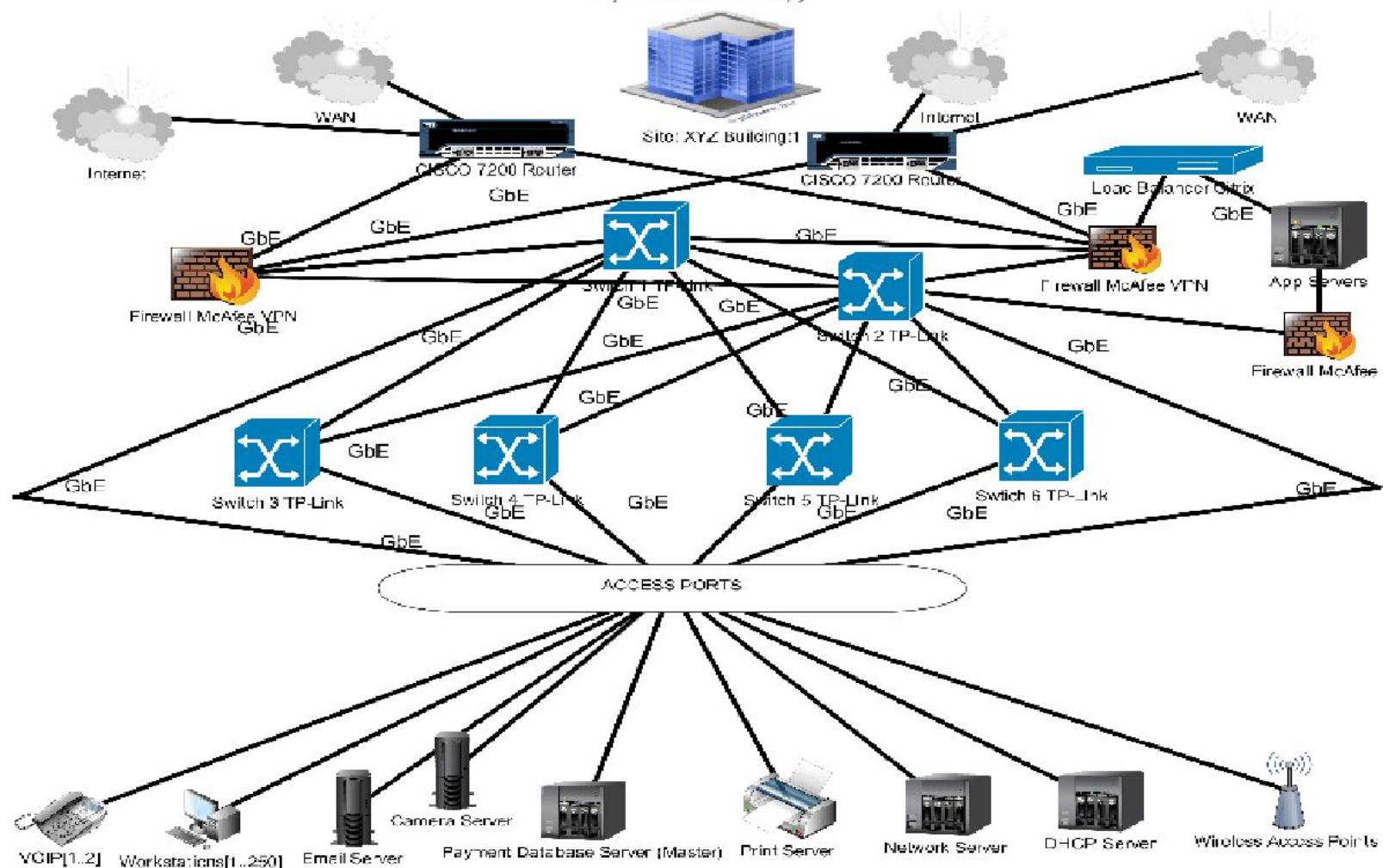
Phase 5 - smooth out the network: Due: Jul. 1, 2016

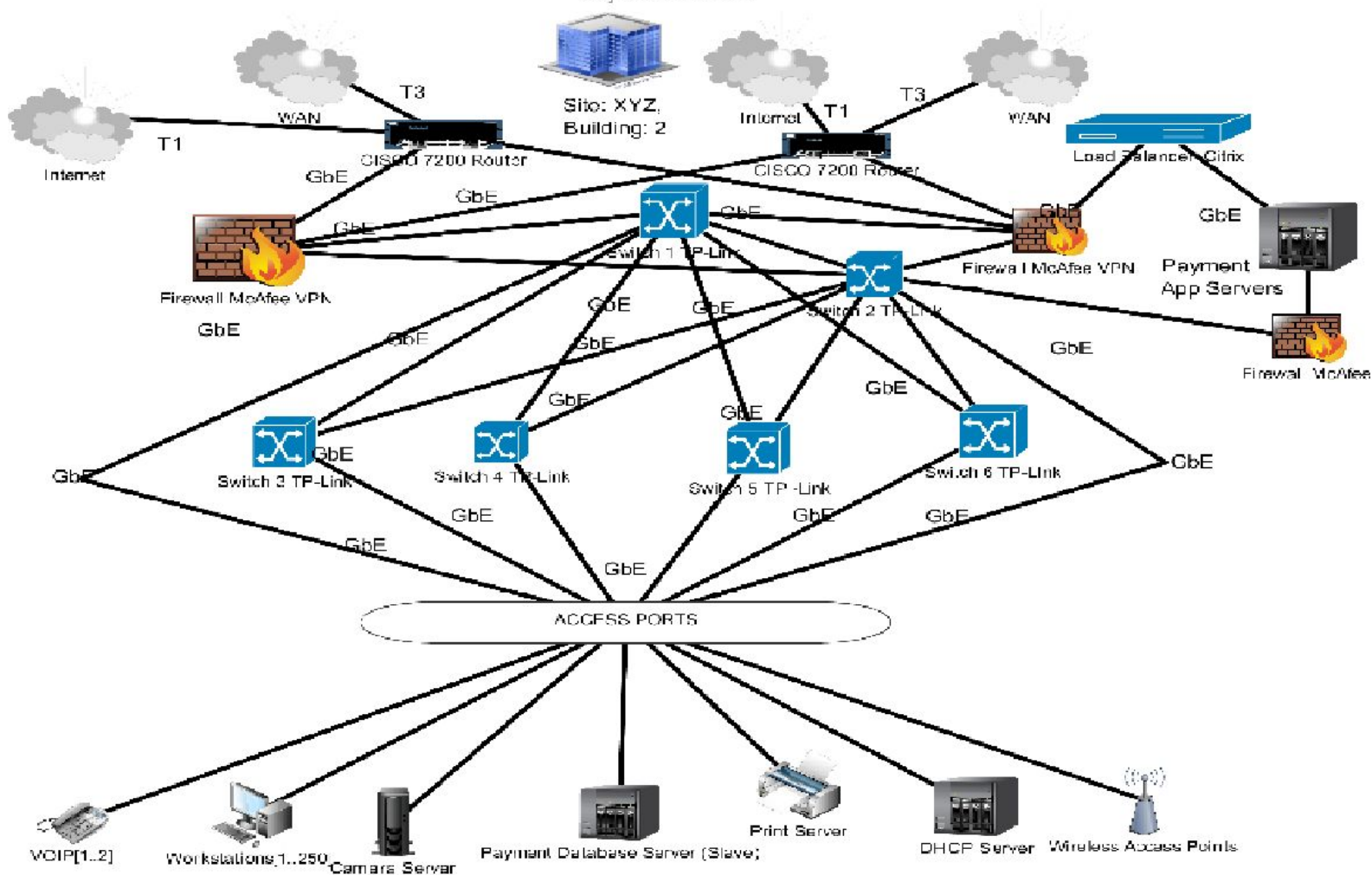
- get feedback from users
- test
- improve

Phase Timeline

ACTIVITY	START	NOTES		
Project Start	1/1/2016	Initial contact	10%	
Phase 1	1/25/2016	Formulation: On-Site visit to "XYZ" and estimate of project cost	35%	
Phase 2	2/10/2016	The Plan: What resources will the users of "XYZ" require, Provide documentation for	65%	
Phase 3	3/25/2016	Design: Design the network, purchase equipment	80%	
Phase 4	6/1/2016	Create the Network: install equipment, test/troubleshoot, Network up	90%	
Phase 5	7/1/2016	Smooth out Network: get user feedback, test, improve	95%	
Project End	7/1/2016	Final contact	100%	







Building 1		Building 2	
Device	IP	Device	IP
Router	172.16.0.1 255.255.255.0	Router	172.16.10.1 255.255.255.0
Router	172.16.0.2 255.255.255.0	Router	172.16.10.2 255.255.255.0
Firewall	172.16.0.3 255.255.255.0	Firewall	172.16.10.3 255.255.255.0
Firewall	172.16.0.4 255.255.255.0	Firewall	172.16.10.4 255.255.255.0
Firewall	172.16.0.5 255.255.255.0	Firewall	172.16.10.5 255.255.255.0
Switch	172.16.0.6 255.255.255.0	Switch	172.16.10.6 255.255.255.0
Switch	172.16.0.7 255.255.255.0	Switch	172.16.10.7 255.255.255.0
Switch	172.16.0.8 255.255.255.0	Switch	172.16.10.8 255.255.255.0
Switch	172.16.0.9 255.255.255.0	Switch	172.16.10.9 255.255.255.0
Switch	172.16.0.10 255.255.255.0	Switch	172.16.10.10 255.255.255.0
Switch	172.16.0.11 255.255.255.0	Switch	172.16.10.11 255.255.255.0
Network Server	172.16.0.12 255.255.255.0	Network Server	none
Payment Server	172.16.0.13 - 172.16.0.16 255.255.255.0	Payment Server	172.16.10.12 - 172.16.10.15 255.255.255.0
Database Server	172.16.0.17 255.255.255.0	Database Server	172.16.10.16 255.255.255.0
Camera Server	172.16.0.18 255.255.255.0	Camera Server	172.16.10.17 255.255.255.0
Email Server	172.16.0.19 255.255.255.0	Email Server	none
Printer Server	172.16.0.20 255.255.255.0	Printer Server	172.16.10.18 255.255.255.0
Wireless Server	172.16.0.20 - 172.16.0.34 255.255.255.0	Wireless Server	172.16.10.19 - 172.16.10.32 255.255.255.0
DHCP Server	172.16.0.35 255.255.255.0	DHCP Server	172.16.10.33 255.255.255.0
IP Cameras	172.16.0.36 - 172.16.0.45 255.255.255.0	IP Cameras	172.16.10.34 - 172.16.10.43 255.255.255.0
Workstations	172.16.1.0 255.255.255.0	Voice Phones	172.16.11.0 255.255.255.0
	172.16.2.0 255.255.255.0		172.16.12.0 255.255.255.0
	172.16.3.0 255.255.255.0	Workstations	172.16.13.0 255.255.255.0
	172.16.4.0 255.255.255.0		172.16.14.0 255.255.255.0
Wireless Devices	172.16.5.0 255.255.255.0		172.16.15.0 255.255.255.0
	172.16.6.0 255.255.255.0		172.16.16.0 255.255.255.0
	172.16.7.0 255.255.255.0	Wireless Devices	172.16.17.0 255.255.255.0
Voice Phone	172.16.8.0 255.255.255.0		172.16.18.0 255.255.255.0
	172.16.9.0 255.255.255.0		172.16.19.0 255.255.255.0

Vendors

Service Provider: Comcast, Centurylink

Switches: Cisco, Allied Telesis, Brocade Communications, TP Link

Routers: Cisco

Firewalls: Cisco

Security Cameras: ZyXEL Commun. Corp, Samsung

Servers: Cisco

Wireless Access Points: Cisco

UPS: Emerson, Duke Energy

Allow for Mobility: Skype

Network Support: CNS

Load Balancer: Citrix

Budget



Switches: \$20,000.00

Routers: \$10,000.00

Firewalls: \$10,000.00

Mobility: \$3,000.00

Access installation: \$10,000.00 (per. mo)

Cameras: \$5,000.00

Access Points: \$1,000.00

Budget cont..



Servers: \$10,000.00

UPS: \$1,000.00

Load Balancer: \$6,000.00

Maintenance and Support: \$23,000.00 (annually)

Total: \$99,000.00

Q & A

