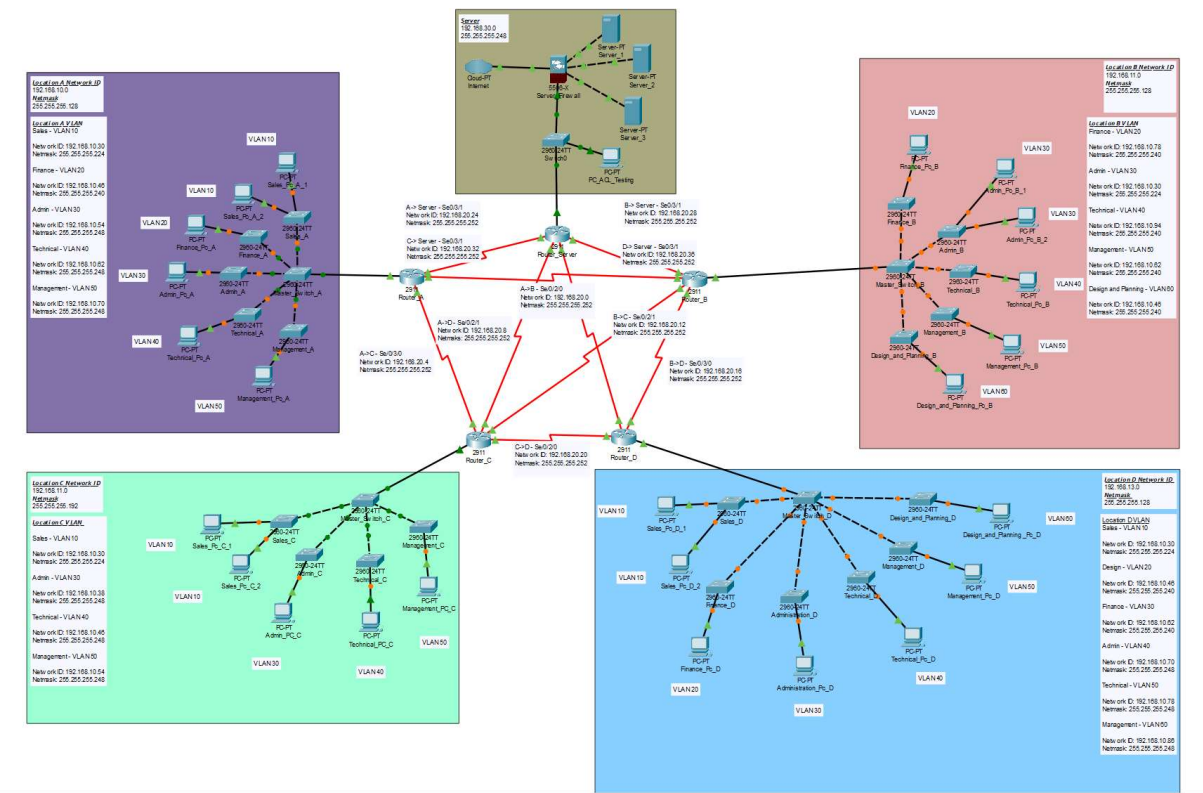
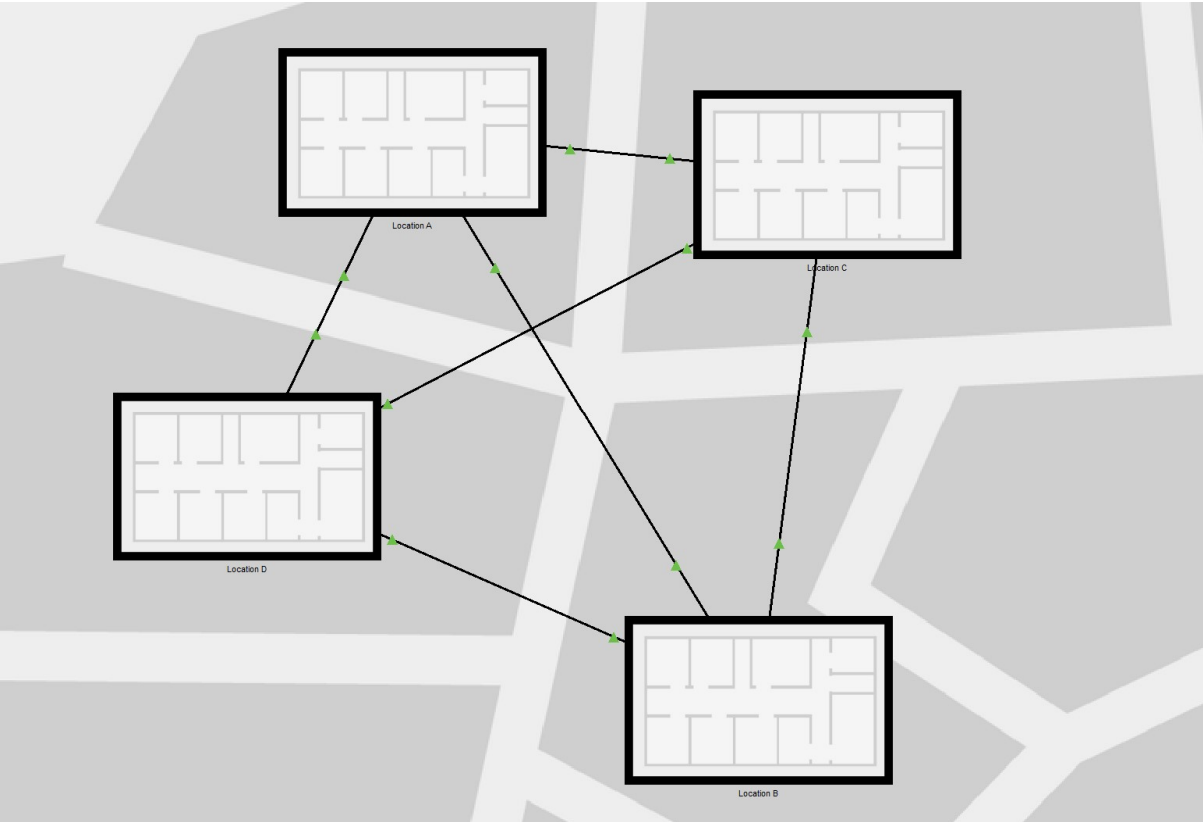


Logical Diagram



Physical Diagram

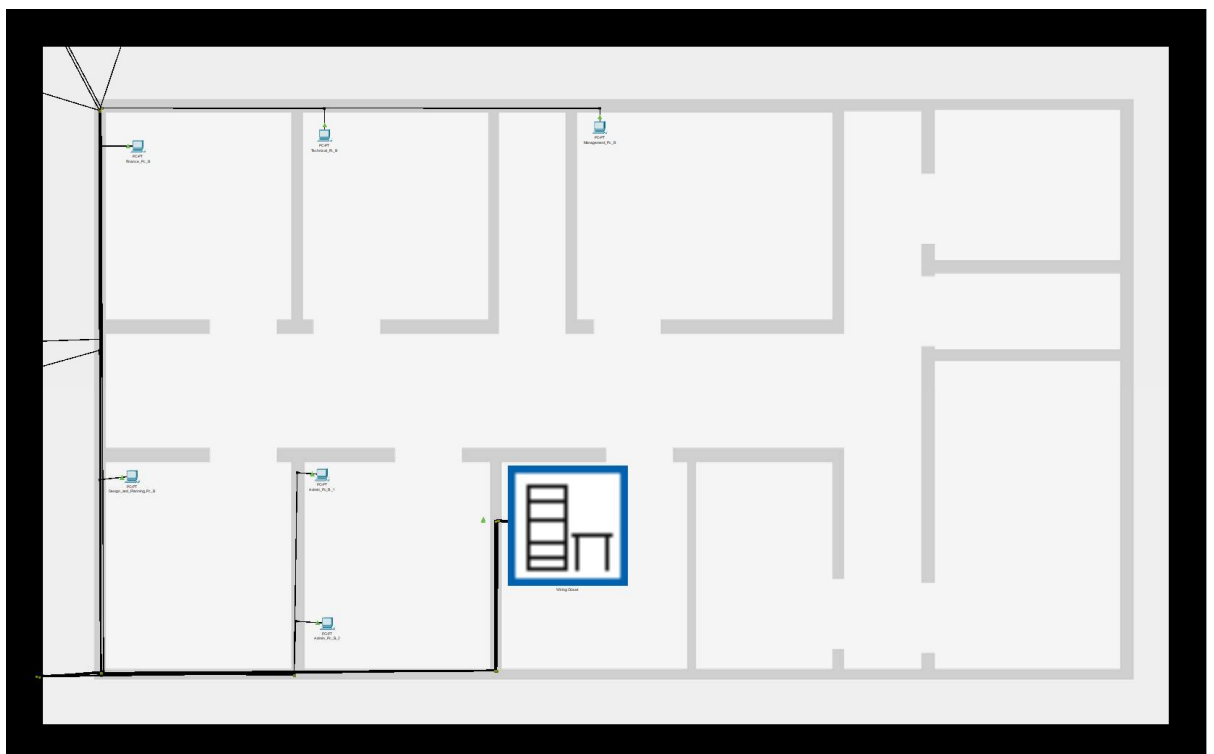
Overall map



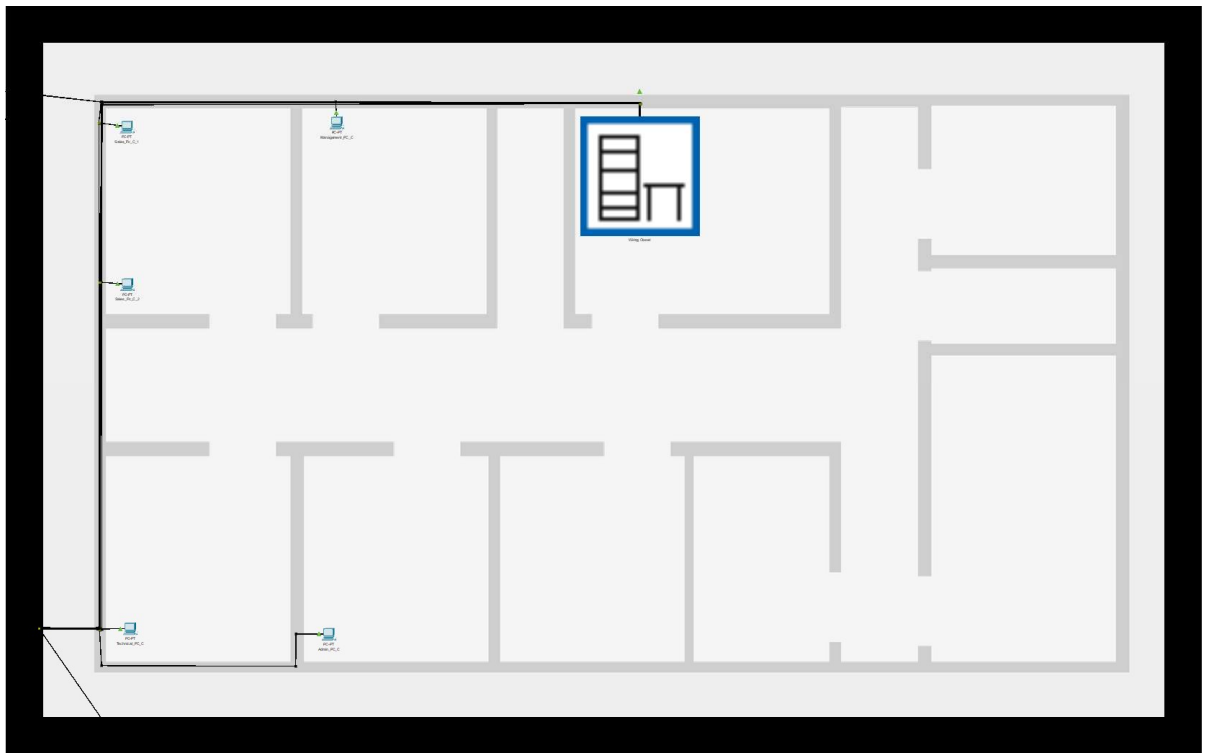
Location A



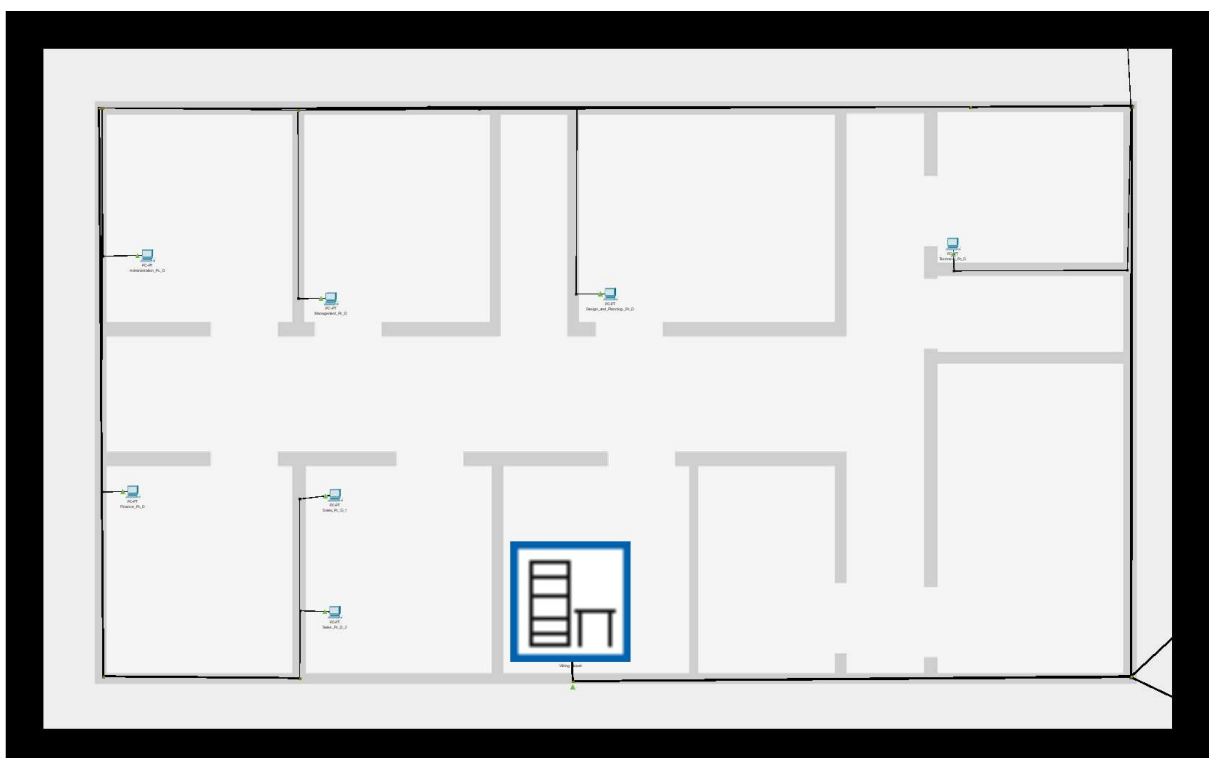
Location B



Location C



Location D



IP Addressing Scheme

VLSM								Summary Subnetting Table										
Network ID:192.168.10.0/25								Subnet	1	2	4	8	16	32	64	128	256	
Location A								Host	256	128	64	32	16	8	4	2	1	
								Subnet Mask	/24	/25	/26	/27	/28	/29	/30	/31	/32	
Department	Hosts Required	Host Available	Unused	Network Address	Mask	Range	Broadcast	Wildcard	Department	Hosts Needed	128	64	32	16	8	4	2	1
Sales	28	30	2	192.168.10.0	255.255.255.224	192.168.10.1 - 192.168.10.30	192.168.10.31	0.0.0.31	Sales	28	1	1	1	0	0	0	0	0
Finance	12	14	2	192.168.10.32	255.255.255.240	192.168.10.33 - 192.168.10.46	192.168.10.47	0.0.0.15	Finance	12	1	1	1	1	0	0	0	0
Admin	5	6	1	192.168.10.48	255.255.255.248	192.168.10.49 - 192.168.10.54	192.168.10.55	0.0.0.7	Admin	5	1	1	1	1	1	0	0	0
Technical	4	6	2	192.168.10.56	255.255.255.248	192.168.10.57 - 192.168.10.62	192.168.10.63	0.0.0.7	Technical	4	1	1	1	1	1	0	0	0
Management	3	6	3	192.168.10.64	255.255.255.248	192.168.10.65 - 192.168.10.70	192.168.10.71	0.0.0.7	Management	3	1	1	1	1	1	1	0	0
Wan Link	1	2	1	192.168.10.72	255.255.255.252	192.168.10.73 - 192.168.10.74	192.168.10.75	0.0.0.3										
Network ID:192.168.11.0/25																		
Location B																		
Department	Hosts Required	Host Available	Unused	Network Address	Mask	Range	Broadcast	Wildcard	Department	Hosts Needed	128	64	32	16	8	4	2	1
Admin	15	30	15	192.168.11.0	255.255.255.224	192.168.11.1 - 192.168.11.30	192.168.11.31	0.0.0.31	Admin	15	1	1	1	0	0	0	0	0
Design	10	14	4	192.168.11.32	255.255.255.240	192.168.11.33 - 192.168.11.46	192.168.11.47	0.0.0.15	Design	10	1	1	1	1	0	0	0	0
Management	10	14	4	192.168.11.48	255.255.255.240	192.168.11.49 - 192.168.11.62	192.168.11.63	0.0.0.15	Management	10	1	1	1	1	0	0	0	0
Finance	9	14	5	192.168.11.64	255.255.255.240	192.168.11.65 - 192.168.11.78	192.168.11.79	0.0.0.15	Finance	9	1	1	1	1	0	0	0	0
Technical	6	14	7	192.168.11.80	255.255.255.240	192.168.11.81 - 192.168.11.94	192.168.11.95	0.0.0.15	Technical	7	1	1	1	1	0	0	0	0
Wan Link	1	2	1	192.168.11.96	255.255.255.252	192.168.11.97 - 192.168.11.98	192.168.11.99	0.0.0.3	add 1 for the router									
Network ID:192.168.12.0/26																		
Location C																		
Department	Hosts Required	Host Available	Unused	Network Address	Mask	Range	Broadcast	Wildcard	Department	Hosts Needed	128	64	32	16	8	4	2	1
Sales	26	30	4	192.168.12.0	255.255.255.224	192.168.12.1 - 192.168.12.30	192.168.12.31	0.0.0.31	Sales	26	1	1	1	0	0	0	0	0
Admin	5	6	1	192.168.12.32	255.255.255.248	192.168.12.33 - 192.168.12.38	192.168.12.39	0.0.0.7	Admin	5	1	1	1	1	1	0	0	0
Technical	4	6	2	192.168.12.40	255.255.255.248	192.168.12.41 - 192.168.12.46	192.168.12.47	0.0.0.7	Technical	4	1	1	1	1	1	0	0	0
Management	3	6	3	192.168.12.48	255.255.255.248	192.168.12.49 - 192.168.12.54	192.168.12.55	0.0.0.7	Management	3	1	1	1	1	1	1	0	0
Wan Link	1	2	1	192.168.12.56	255.255.255.252	192.168.12.57 - 192.168.12.58	192.168.12.59	0.0.0.3										
Network ID:192.168.13.0/25																		
Location D																		
Department	Hosts Required	Host Available	Unused	Network Address	Mask	Range	Broadcast	Wildcard	Department	Hosts Needed	128	64	32	16	8	4	2	1
Sales	15	30	15	192.168.13.0	255.255.255.224	192.168.13.1 - 192.168.13.30	192.168.13.31	0.0.0.31	Sales	15	1	1	1	0	0	0	0	0
Design	8	14	6	192.168.13.32	255.255.255.240	192.168.13.33 - 192.168.13.46	192.168.13.47	0.0.0.15	Design	8	1	1	1	1	0	0	0	0
Finance	7	14	7	192.168.13.48	255.255.255.240	192.168.13.49 - 192.168.13.62	192.168.13.63	0.0.0.15	Finance	7	1	1	1	1	0	0	0	0
Admin	5	6	1	192.168.13.64	255.255.255.248	192.168.13.65 - 192.168.13.70	192.168.13.71	0.0.0.7	Admin	5	1	1	1	1	1	0	0	0
Technical	4	6	2	192.168.13.72	255.255.255.248	192.168.13.73 - 192.168.13.78	192.168.13.79	0.0.0.7	Technical	4	1	1	1	1	1	0	0	0
Management	3	6	3	192.168.13.80	255.255.255.248	192.168.13.81 - 192.168.13.86	192.168.13.87	0.0.0.7	Management	3	1	1	1	1	1	0	0	0
Wan Link	1	2	1	192.168.13.88	255.255.255.252	192.168.13.89 - 192.168.13.90	192.168.13.91	0.0.0.3										
Network ID:192.168.20.0/26								VLAN										
Ports	Hosts Required	Hosts Available	Unused	Network Address	Mask	Range	Broadcast	Wildcard	Sales	10								
A -> B & B -> A	2	2	0	192.168.20.0	255.255.255.252	192.168.20.1 - 192.168.20.2	192.168.20.3	0.0.0.3	Finance	20								
A -> C & C -> A	2	2	0	192.168.20.4	255.255.255.252	192.168.20.5 - 192.168.20.6	192.168.20.7	0.0.0.3	Admin	30								
A -> D & D -> A	2	2	0	192.168.20.8	255.255.255.252	192.168.20.9 - 192.168.20.10	192.168.20.11	0.0.0.3	Technical	40								
B -> C & C -> B	2	2	0	192.168.20.12	255.255.255.252	192.168.20.13 - 192.168.20.14	192.168.20.15	0.0.0.3	Management	50								
B -> D & D -> B	2	2	0	192.168.20.16	255.255.255.252	192.168.20.17 - 192.168.20.18	192.168.20.19	0.0.0.3	Design	60								
C -> D & D -> C	2	2	0	192.168.20.20	255.255.255.252	192.168.20.21 - 192.168.20.22	192.168.20.23	0.0.0.3										
A -> Server & Server -> A	2	2	0	192.168.20.24	255.255.255.252	192.168.20.25 - 192.168.20.26	192.168.20.27	0.0.0.3										
B -> Server & Server -> B	2	2	0	192.168.20.28	255.255.255.252	192.168.20.29 - 192.168.20.30	192.168.20.31	0.0.0.3										
C -> Server & Server -> C	2	2	0	192.168.20.32	255.255.255.252	192.168.20.33 - 192.168.20.34	192.168.20.35	0.0.0.3										
D -> Server & Server -> D	2	2	0	192.168.20.36	255.255.255.252	192.168.20.37 - 192.168.20.38	192.168.20.39	0.0.0.3										
Network ID: 192.168.30.0/29																		
Department	Hosts Required	Available	Unused	Mask	Network Address	Range	Broadcast	Wildcard										
Server_Room	4	6	2	255.255.255.248	192.168.30.0	192.168.30.1 - 192.168.30.6	192.168.30.7	0.0.0.7										

Device	Port	IP Address	Subnet Mask	Default Gateway	Links
Router A	Gig 0/0.10	192.168.10.30	255.255.255.224	N/A	
	Gig 0/0.20	192.168.10.46	255.255.255.240	N/A	
	Gig 0/0.30	192.168.10.54	255.255.255.248	N/A	
	Gig 0/0.40	192.168.10.62	255.255.255.248	N/A	
	Gig 0/0.50	192.168.10.70	255.255.255.248	N/A	
	Gig 0/0	192.168.10.74	255.255.255.252	N/A	
	S0/2/0	192.168.20.1	255.255.255.252	N/A	A -> B
	S0/2/1	192.168.20.9	255.255.255.252	N/A	A -> D
	S0/3/0	192.168.20.5	255.255.255.252	N/A	A -> C
	S0/3/1	192.168.20.25	255.255.255.252	N/A	A -> Server
Router B	Gig 0/0.20	192.168.11.78	255.255.255.240	N/A	
	Gig 0/0.30	192.168.11.30	255.255.255.224	N/A	
	Gig 0/0.40	192.168.11.94	255.255.255.240	N/A	
	Gig 0/0.50	192.168.11.62	255.255.255.240	N/A	
	Gig 0/0.60	192.168.11.46	255.255.255.240	N/A	
	Gig 0/0	192.168.11.98	255.255.255.252	N/A	
	S0/2/0	192.168.20.2	255.255.255.252	N/A	B -> A
	S0/2/1	192.168.20.18	255.255.255.252	N/A	B -> C
	S0/3/0	192.168.20.17	255.255.255.252	N/A	B -> D
	S0/3/1	192.168.20.29	255.255.255.252	N/A	B -> Server
Router C	Gig 0/0.10	192.168.12.30	255.255.255.224	N/A	
	Gig 0/0.30	192.168.12.38	255.255.255.248	N/A	
	Gig 0/0.40	192.168.12.46	255.255.255.248	N/A	
	Gig 0/0.50	192.168.12.54	255.255.255.248	N/A	
	Gig 0/0	192.168.12.58	255.255.255.252	N/A	
	S0/2/0	192.168.20.21	255.255.255.252	N/A	C -> D
	S0/2/1	192.168.20.14	255.255.255.252	N/A	C -> B
	S0/3/0	192.168.20.6	255.255.255.252	N/A	C -> A
	S0/3/1	192.168.20.33	255.255.255.252	N/A	C -> Server
	Router D	Gig 0/0.10	192.168.13.30	255.255.255.224	N/A
Gig 0/0.20		192.168.13.62	255.255.255.240	N/A	
Gig 0/0.30		192.168.13.70	255.255.255.240	N/A	
Gig 0/0.40		192.168.13.78	255.255.255.248	N/A	
Gig 0/0.50		192.168.13.86	255.255.255.248	N/A	
Gig 0/0.60		192.168.13.46	255.255.255.248	N/A	
Gig 0/0		192.168.13.90	255.255.255.252	N/A	
S0/2/0		192.168.20.22	255.255.255.252	N/A	D -> C
S0/2/1		192.168.20.10	255.255.255.252	N/A	D -> A
S0/3/0		192.168.20.18	255.255.255.252	N/A	D -> B
Router Server	S0/3/1	192.168.20.37	255.255.255.252	N/A	D -> Server
	S0/2/0	192.168.20.38	255.255.255.252	N/A	D -> Server
	S0/2/1	192.168.20.34	255.255.255.252	N/A	C -> Server
	S0/3/0	192.168.20.30	255.255.255.252	N/A	B -> Server
	S0/3/1	192.168.20.26	255.255.255.252	N/A	A -> Server