## **Fundamentals of Networks - Project**

## Networks IP Addressing

VLAN/Sub Network		IP Addresses (IPv4 Private, IPv4 Public, IPv6)	
DMZ		10.100.0.0/24	
		110.0.0.0/26	
		3100:0:0::/64	
Internal Datacenter		10.100.1.0/24	
		110.0.0.64/26	
		3100:0:0:1::/64	
VLAN 2		10.100.2.0/24	
Engineering		110.0.0.128/26	
		3100:0:0:2::/64	
		10 100 0 0 10 1	
VLAN 3		10.100.3.0/24	
Administration		110.0.0.208/28	
		3100:0:0:3::/64	
VLAN 4		10.100.4.0 / 24	
Video-conference		110.0.0.224/28 3100:0:0:4::/64	
equipment		•	
VLAN 5		10.100.5.0/24	
VoIP		3100:0:0:5::/64	
NAT/PAT		110.0.0.192/28	
Point-to-	Router 1 –	10.100.6.0 / 30	
Point	SWL3 C1	3100:0:0:6::/126	
Connections	Router 1 –	10.100.6.4 / 30	
	SWL3 C2	3100:0:0:6::4/126	
	Router A –	10.100.6.8 / 30	
	SWL3 C1	3100:0:0:6::8/126	
	Router A –	10.100.6.12 / 30	
	SWL3 C2	3100:0:0:6::12/126	
	SWL3 C1 -	10.100.6.16 / 30	
	SWL3 C2	3100:0:0:6::16/126	
	Router 1 –	100.0.50.0 / 24	
	ISP	3000:B:B:B::/64	

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## Device Info and IP Addressing

Device	Interface/Item	IP Addresses and Other Important Info
Device	F0/0	10.100.6.2/30
	To Router 1	3100:0:0:2/30
	F1/0	10.100.6.17/30
	To SWL3 C2	3100::6:0:0:16:1/126
	F1/1	Trunk
	To SWL3 F1	Trunk
	F1/2	Trunk
	To SWL3 F2	Trum
	F1/3	10.100.6.10/30
	To Router A	3100::6:0:0:8:2/126
	F1/4	110.0.0.68/26
	To SWL2-Datacenter	10.100.1.1/24
		3100:0:0:1::1/64
	F1/5	110.0.0.4/26
	To SWL2-DMZ	10.100.0.1/24
SWL3 C1		3100::1/64
	VLAN2	110.0.0.132/26
		10.100.2.4/24
		3100:0:0:2::4/64
	VLAN3	110.0.0.212/28
		10.100.3.4/24
		3100:0:0:3::4/64
	VLAN4	110.0.0.228/28
		10.100.4.4/24
	VLAN5	3100:0:0:4::4/64 No Public
	VLANO	10.100.5.4/24
		3100:0:5::4/64
		DHCP Pool 10.100.5.21 - 10.100.5.29 (GW
		10.100.5.4)
	F0/0	10.100.6.6/30
	To Router 1	3100::6:0:0:4:2/126
	F1/0	10.100.6.87/30
	To SWL3 C1	3100::6:0:0:16:2/126
	F1/1	Trunk
	To SWL3 F1	
	F1/2	Trunk
	To SWL3 F2	
SWL3 C2	F1/3	10.100.6.14/30
	To Router A	3100::6:0:0:12:2/126
	VLAN2	110.0.0.131/26
		10.100.2.3/24
	TH AND	3100:0:0:2::3/64
	VLAN3	110.0.0.211/28
		10.100.3.3/24
		3100:0:0:3::3/64

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SWL3 C2 (continuation)	VLAN4 VLAN5	110.0.0.227/28 10.100.4.3/24 3100:0:0:4::3/64 No Public 10.100.5.3/24 3100:0:0:5::3/64
Router A	F0/0 To SWL2-OB F1/0 To SWL3 C1 F1/1 To SWL3 C2	192.168.0.1/20 10.100.6.9/30 3100::6:0:0:8:1/126 10.100.6.13/30 3100::6:0:0:12:1/126
Davidson 4	F0/0 To SWL3 C2 F0/1 To SWL3 C1	10.100.6.5/30 3100::6:0:0:4:1/126 NAT Inside Default Route Announced 10.100.6.1/30 3100:0:6::1/126 NAT Inside Default Route Announced
Router 1	F1/0 To ISP  NAT Pool  IP Static Routes	100.0.50.1/24 3000:B:B:B::1/64 NAT Outside 110.0.0.193 - 110.0.0.206 / 24 Translating 10.100.0.0 & 192.168.0.0 100.0.0.0/24 by 100.0.50.2 3000:A:A:A::/64 by 3000:B:B:B::2
ISP	F0/0 To ISP F0/1 To SWL2-INT Static Routes	100.0.50.2/24 3000:B:B:B::2/64 100.0.0.1/24 3000:A:A:A::1/64 110.0.0.0/24 by 100.0.50.1