

Mini – Projeto

Fundamentos de Redes

UA - DETI - Turma P3

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Nota Inicial

$X_0 X_1 X_2 X_3 X_4 = 93097$ e $X_5 X_6 X_7 X_8 X_9 = 93388$

Endereços disponíveis

Tipo	Endereço
IPv4 Público	200.197.188.0/25
IPv4 Privado	10.178.0.0/16
IPv6 Global	2100:0:0:300::/60

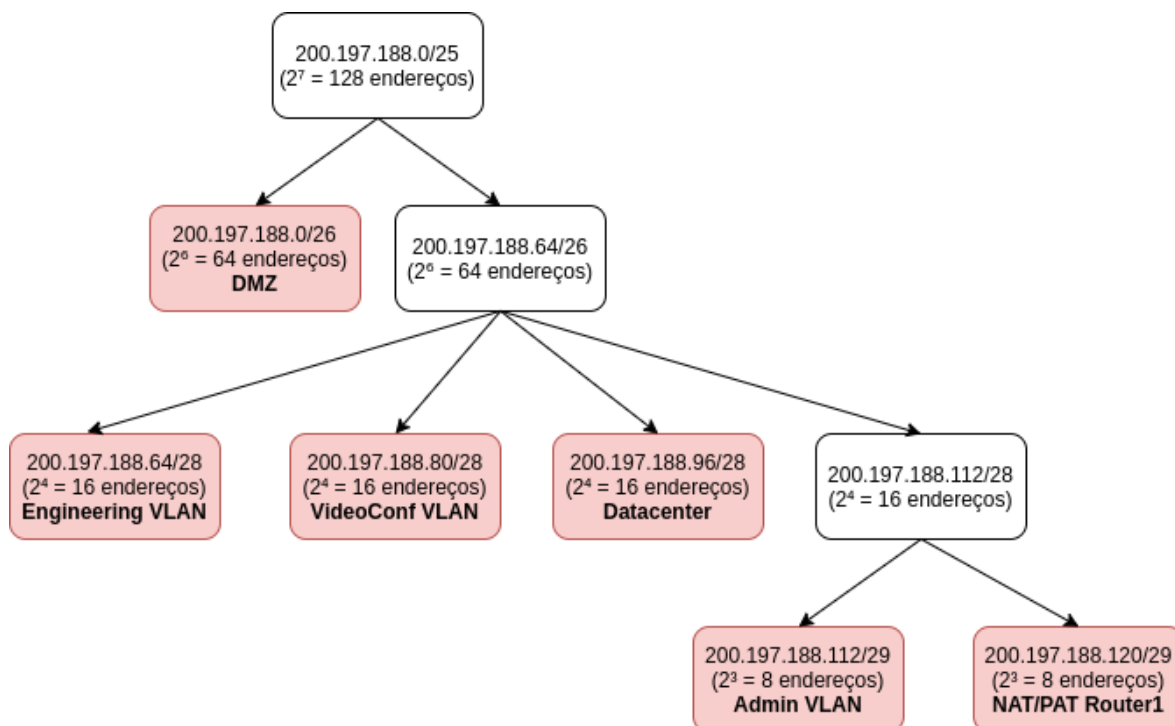
Para o IPv4 público foi efetuada uma subdivisão de rede de acordo com as necessidades de cada VLAN.

Para o IPv4 privado foi escolhida uma máscara de rede /24 para as VLANs e uma /30 para ligações ponto a ponto.

No caso do IPv6 as máscaras escolhidas foram de /64 para VLANs e /126 para ligações ponto a ponto.

Endereços das VLANs

VLANs	IPv4 Público	Gama de Endereços Utilizáveis
Engineering	200.197.188.64/28	200.197.188.65/28 - 200.197.188.78/28
Administration	200.197.188.112/29	200.197.188.113/29 - 200.197.188.118/29
VideoConf.	200.197.188.80/28	200.197.188.81/28 - 200.197.188.94/28
DMZ	200.197.188.0/26	200.197.188.1/26 - 200.197.188.62/26
DataCenter	200.197.188.96/28	200.197.188.97/28 - 200.197.188.110/28
NAT/PAT	200.197.188.120/29	200.197.188.121/29 - 200.197.188.126/29



VLANs	IPv4 Privado	Gama de Endereços Utilizáveis
Engineering	10.178.0.0/24	10.178.0.1/24 - 10.178.0.254/24
Administration	10.178.1.0/24	10.178.1.1/24 - 10.178.1.254/24
VideoConf	10.178.2.0/24	10.178.2.1/24 - 10.178.2.254/24
Marketing	10.178.3.0/24	10.178.3.1/24 - 10.178.3.254/24
DMZ	10.178.4.0/24	10.178.4.1/24 - 10.178.4.254/24
DataCenter	10.178.5.0/24	10.178.5.1/24 - 10.178.5.254/24
SWL3C1 – Router A	10.178.6.0/30	10.178.6.1/30 - 10.178.6.2/30
SWL3C1 – Router 1	10.178.6.4/30	10.178.6.5/30 - 10.178.6.6/30
SWL3C2 – Router A	10.178.6.8/30	10.178.6.9/30 - 10.178.6.10/30
SWL3C2 – Router 1	10.178.6.12/30	10.178.6.13/30 - 10.178.6.14/30
SWL3C1 – SWL3C2	10.178.6.16/30	10.178.6.17/30 - 10.178.6.18/30

VLANs	IPv6 Global	Gama de Endereços Utilizáveis
Engineering	2100:0:0:300::/64	2100:0:0:300::1/64 - 2100:0:0:300:ffff:ffff:ffff:ffff /64
Administration	2100:0:0:301::/64	2100:0:0:301::1/64 - 2100:0:0:301:ffff:ffff:ffff:ffff /64
VideoConf	2100:0:0:302::/64	2100:0:0:302::1/64 - 2100:0:0:302:ffff:ffff:ffff:ffff /64
Marketing	2100:0:0:303::/64	2100:0:0:303::1/64 - 2100:0:0:303:ffff:ffff:ffff:ffff /64
DMZ	2100:0:0:304::/64	2100:0:0:304::1/64 - 2100:0:0:304:ffff:ffff:ffff:ffff /64
DataCenter	2100:0:0:305::/64	2100:0:0:305::1/64 - 2100:0:0:305:ffff:ffff:ffff:ffff /64
SWL3C1 – RouterA	2100:0:0:306::/126	2100:0:0:306::1/126 - 2100:0:0:306::3/126
SWL3C1 – Router 1	2100:0:0:306::4/126	2100:0:0:306::5/126 - 2100:0:0:306::7/126
SWL3C2 – Router A	2100:0:0:306::8/126	2100:0:0:306::9/126 - 2100:0:0:306::B/126
SWL3C2 – Router 1	2100:0:0:306::C/126	2100:0:0:306::D/126 - 2100:0:0:306::F/126
SWL3C1 – SWL3C2	2100:0:0:306::10/126	2100:0:0:306::11/126 - 2100:0:0:306::13/126

Endereçamento Routers/Switches

Router/ Switch	VLAN/Interface	IPv4 Privado	IPv4 Público	IPv6 Global
SWL3F1	ESW0 (F1/0) (0-10)	Trunk	-	Trunk
	ESW1 (F1/1) (0-10)	Trunk	-	Trunk
	SWL3F2 (F1/2)	Trunk	-	Trunk
	SWL3C1 (F1/3)	Trunk	-	Trunk
	SWL3C2 (F1/4)	Trunk	-	Trunk
SWL3F2	ESW2 (F1/0) (11-20)	Trunk	-	Trunk
	ESW3 (F1/1) (11-20)	Trunk	-	Trunk
	SWL3F1 (F1/2)	Trunk	-	Trunk
	SWL3C1 (F1/3)	Trunk	-	Trunk
	SWL3C2 (F1/4)	Trunk	-	Trunk
SWL3C1	Engineering VLAN	10.178.0.254/24	200.197.188.78/28	2100:0:0:300::1/64
	Admin VLAN	10.178.1.254/24	200.197.188.118/29	2100:0:0:301::1/64
	VideoConf VLAN	10.178.2.254/24	200.197.188.94/28	2100:0:0:302::1/64
	Marketing VLAN	10.178.3.254/24	-	2100:0:0:303::1/64
	DMZ VLAN	10.178.4.254/24	200.197.188.62/26	2100:0:0:304::1/64
	DataCenter VLAN	10.178.5.254/24	200.197.188.110/28	2100:0:0:305::1/64
	Router1 (F0/0)	10.178.6.5/30	-	2100:0:0:306::5/126
	RouterA (F0/1)	10.178.6.1/30	-	2100:0:0:306::1/126
	SWL3C2 (F1/0)	10.178.6.17/30	-	2100:0:0:306::11/126
	SWL3F1 (F1/1)	Trunk	-	Trunk
	SWL3F2 (F1/2)	Trunk	-	Trunk
SWL3C2	Engineering VLAN	10.178.0.253/24	200.197.188.77/28	2100:0:0:300::2/64
	Admin VLAN	10.178.1.253/24	200.197.188.117/29	2100:0:0:301::2/64
	VideoConf VLAN	10.178.2.253/24	200.197.188.93/28	2100:0:0:302::2/64
	Marketing VLAN	10.178.3.253/24	-	2100:0:0:303::2/64
	Router1 (F0/0)	10.178.6.13/30	-	2100:0:0:306::D/126
	RouterA (F0/1)	10.178.6.9/30	-	2100:0:0:306::9/126
	SWL3C1 (F1/0)	10.178.6.18/30	-	2100:0:0:306::12/126
	SWL3F1 (F1/1)	Trunk	-	Trunk
	SWL3F2 (F1/2)	Trunk	-	Trunk
RouterA	SWL3C1 (F0/0)	10.178.6.2/30	-	2100:0:0:306::2/126
	SWL3C2 (F0/1)	10.178.6.10/30	-	2100:0:0:306::A/126
	Old Building (F1/0)	192.168.2.1/23	-	-
Router1	SWL3C1 (F0/0)	10.178.6.6/30	-	2100:0:0:306::6/126
	SWL3C2 (F0/1)	10.178.6.14/30	-	2100:0:0:306::E/126
	ISP (F1/0)	101.0.0.1/30	-	3001:A:A:A::1/126
ISP	Router1 (F0/0)	101.0.0.2/30	-	3001:A:A:A::2/126

VLAN	Gateway Primário	Gateway Secundário
Engineering VLAN	SWL3C1 10.178.0.254/24 200.197.188.78/28 2100:0:0:300::1/64	SWL3C2 10.178.0.253/24 200.197.188.77/28 2100:0:0:300::2/64
Admin VLAN	SWL3C1 10.178.1.254/24 200.197.188.118/29 2100:0:0:301::1/64	SWL3C2 10.178.1.253/24 200.197.188.117/29 2100:0:0:301::2/64
VideoConf VLAN	SWL3C1 10.178.2.254/24 200.197.188.94/28 2100:0:0:302::1/64	SWL3C2 10.178.2.253/24 200.197.188.93/28 2100:0:0:302::2/64
Marketing VLAN	SWL3C1 10.178.3.254/24 2100:0:0:303::1/64	SWL3C2 10.178.3.253/24 2100:0:0:303::2/64
DMZ	SWL3C1 10.178.4.254./24 200.197.188.62/26 2100:0:0:304::1/64	-
Datacenter	SWL3C1 10.178.5.254/24 200.197.188.110/28 2100:0:0:305::1/64	-