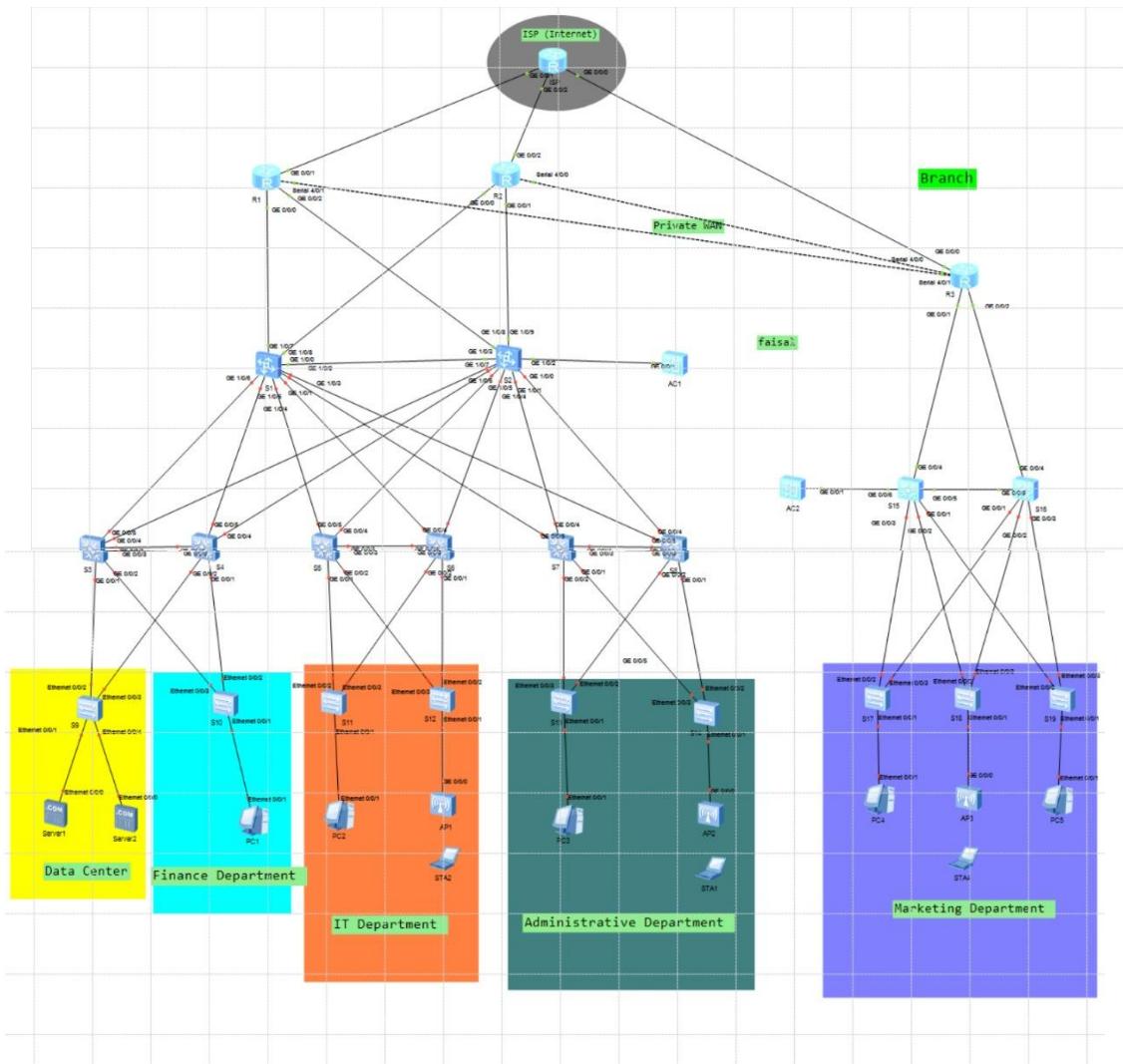


Project planning

Stakeholder: -

This project is for a constructing company

Topology: -



Main Site

Core/Gateway: Redundant Core Switches S1 and S2 using VLANIF

DHCP Server: AC1

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Area / Department	VLAN ID	Subnet Address	Default Gateway IPs (VLANIF)	Devices in this VLAN
Data Center (Yellow)	100	10.50.100.0/24	Virtual IP: 10.50.100.1	Access Switch: S9 Servers: Server1, Server2
Finance department (Blue)	10	10.50.10.0/24	Virtual IP: 10.50.10.1	Access Switch: S10 PC: PC1
It department (Orange)	20	10.50.20.0/24	Virtual IP: 10.50.20.1	Access Switches: S11, PC: PC2
Administrative department (Magenta)	30	10.50.30.0/24	Virtual IP: 10.50.30.1	Access Switches: S13, PC: PC3

Branch Site

Core/Gateway: Redundant Core Switches S15 and S16 using VLANIF

DHCP Server: S15

Area / Department	VLAN ID	Subnet Address	Default Gateway IPs (VLANIF)	Devices in this VLAN
Marketing department (Purple)	120	10.50.132.0/24	Virtual IP: 10.50.132.1	Access Switches: S17, S19 PCs: PC4, PC5

Infrastructure Links

All links use a /30 subnet mask (255.255.255.252).

ROUTER NUM	R1	R2	R3	ISP
ID	1.1.1.1	2.2.2.2	3.3.3.3	4.4.4.4

VLAN ID	VLAN DESCRIPTION
10	Finance department vlan
20	It department vlan
30	Administrative department vlan
100	Data center vlan
120	Marketing department (Branch) vlan
130	Vlanif between s2 & R1
131	Vlanif between s1 & R1
140	Vlanif between s2 & R2
141	Vlanif between s1 & R2
150	Vlanif between s2 & AC1
160	Vlanif between s15 & AC2
170	Vlanif between s16 & R3
171	Vlanif between s16 & R3
40	WLAN IT department (Management for AP1)
41	WLAN IT department (Service for sta2)
50	WLAN Administrative department (Management for AP2)
51	WLAN Administrative department (Service for sta2)
60	WLAN Marketing department (Management for AP3)
61	WLAN Marketing department (Service for sta4)

Device 1	Interface 1	IP Address 1	Device 2	Interface 2	IP Address 2
ISP	G0/0/1	1.2.5.254	R1	G0/0/1	1.2.5.1
ISP	G0/0/2	1.2.4.254	R2	G0/0/2	1.2.4.1
ISP	G0/0/0	1.2.3.254	R3	G0/0/0	1.2.3.4
R1	S4/0/1	10.50.254.2	R3	S4/0/1	10.50.254.1
R2	S4/0/0	10.50.254.6	R3	S4/0/0	10.50.254.5

Vlanif	Device 1	Ip address 1	Device2	Interface 2	Ip address 2
Vlan 130	S2	10.50.254.37	R1	0/0/2	10.50.254.38
Vlan 140	S2	10.50.254.41	R2	0/0/1	10.50.254.42
Vlan 150	S2	10.50.254.45	Ac1	_____	10.50.254.46
Vlan 160	S15	10.50.254.49	Ac2	_____	10.50.254.50
Vlan 170	S15	10.50.254.53	R3	0/0/1	10.50.254.54
Vlan171	S16	10.50.254.65	R3	0/0/2	10.50.254.66
Vlan131	S1	10.50.254.57	R1	0/0/0	10.50.254.58
Vlan141	S1	10.50.254.61	R2	0/0/0	10.50.254.62

WLAN

VLAN	Department	DEVICES	IPS	DHCP POOL	
VLAN 40	IT	AP1 / S12 / STA2	10.50.40.1	10.50.40.0 /24	APs
VLAN 41	IT		10.50.41.1	10.50.41.0 /24	STAs
VLAN 50	ADMINSTRATIVE	AP2 / S14 / STA1	10.50.50.1	10.50.50.0 /24	APs
VLAN 51	ADMINSTRATIVE		10.50.51.1	10.50.51.0 /24	STAs
VLAN 60	MARKETING	AP3 / S18 / STA4	10.50.60.1	10.50.60.0 /24	APs
VLAN 61	MARKETING		10.50.61.1	10.50.61.0 /24	STAs

IPV6

IP	DEVICE
2001:DB8:1::1/64	GATEWAY (Vlanif 120)
2001:DB8:1::3/64	PC5
2001:DB8:1::2/64	PC4

NAT

Nat on router	Range of public ip
R1	1.2.5.10 to 1.2.5.50
R2	1.2.4.10 to 1.2.4.50
R2	1.2.3.10 to 1.2.3.50