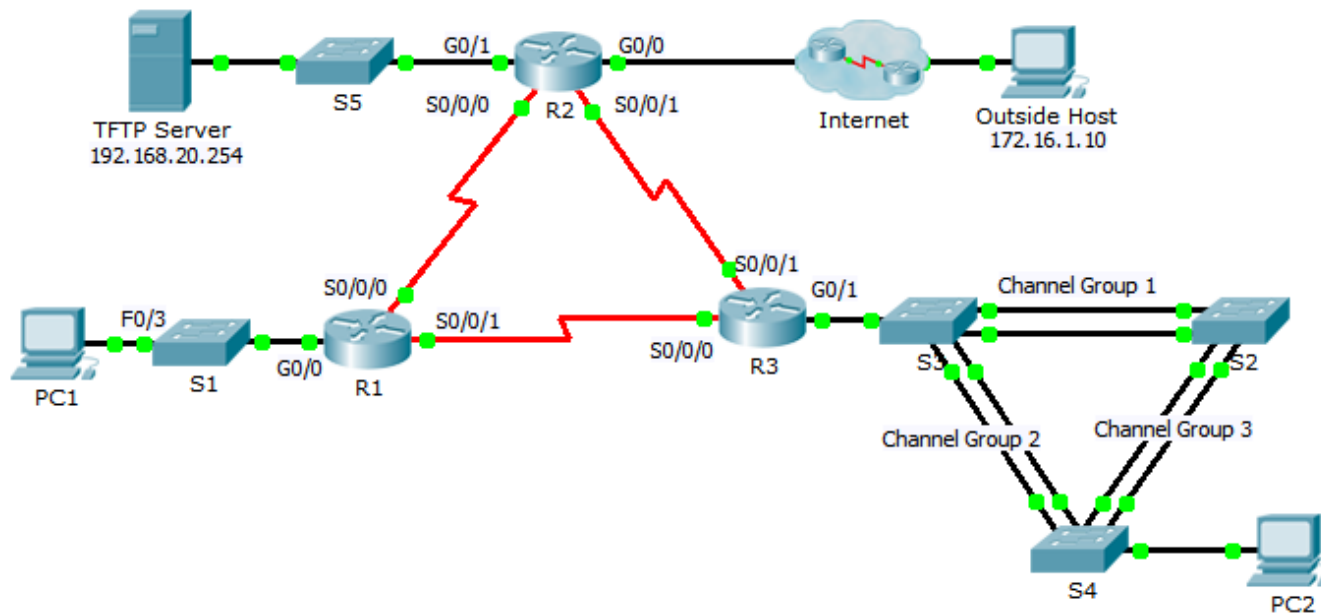


Packet Tracer – Troubleshooting Enterprise Networks 3

Topology



Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1	G0/0	192.168.10.1	255.255.255.0	N/A
	S0/0/0	10.1.1.1	255.255.255.252	N/A
	S0/0/1	10.3.3.1	255.255.255.252	N/A
R2	G0/0	209.165.200.225	255.255.255.224	N/A
	G0/1	192.168.20.1	255.255.255.0	N/A
	S0/0/0	10.1.1.2	255.255.255.252	N/A
	S0/0/1	10.2.2.1	255.255.255.252	N/A
R3	G0/1	192.168.30.1	255.255.255.0	N/A
	S0/0/0	10.3.3.2	255.255.255.252	N/A
	S0/0/1	10.2.2.2	255.255.255.252	N/A
S1	VLAN10	DHCP assigned	DHCP assigned	DHCP assigned
S2	VLAN11	192.168.11.2	255.255.255.0	N/A
S3	VLAN30	192.168.30.2	255.255.255.0	N/A
PC1	NIC	DHCP assigned	DHCP assigned	DHCP assigned
PC2	NIC	192.168.30.10	255.255.255.0	192.168.30.1
TFTP Server	NIC	192.168.20.254	255.255.255.0	192.168.20.1

Background

This activity uses a variety of technologies you have encountered during your CCNA studies, including routing, port security, EtherChannel, DHCP, NAT, PPP, and Frame Relay. Your task is to review the requirements, isolate and resolve any issues, and then document the steps you took to verify the requirements.

Note: This activity begins with a partial score.

Requirements

DHCP

- R1 is the DHCP server for the R1 LAN.

Switching Technologies

- Port security is configured to only allow **PC1** to access **S1's** F0/3 interface. All violations should disable the interface.
- Link aggregation using EtherChannel is configured on **S2**, **S3**, and **S4**.

Routing

- All routers are configured with OSPF process ID 1 and no routing updates should be sent across interfaces that do not have routers connected.
- R2 is configured with a default route pointing to the ISP and redistributes the default route.
- NAT is configured on R2 and no untranslated addresses are permitted to cross the Internet.

WAN Technologies

- The serial link between R1 and R2 uses Frame Relay.
- The serial link between R2 and R3 uses HDLC encapsulation.
- The serial link between R1 and R3 uses PPP with PAP.

Connectivity

- Devices should be configured according to the Addressing Table.
- Every device should be able to ping every other device.

Troubleshooting Documentation

Device	Error	Correction

Verification Documentation

Capture output from verification commands and provide documentation proving that each of the requirements has been satisfied.

Suggested Scoring Rubric

Packet Tracer scores 60 points. The troubleshooting documentation and instructor verification is worth 40 points.