Packet Tracer - Use ICMP to Test and Correct Network Connectivity

Addressing Table

Device	Interface	Address	Mask/Prefix	Default Gateway
RTR-1	G/0/0/0	192.168.1.1	255.255.255.0	N/A
		2001:db8:4::1	/64	N/A
	S0/1/0	10.10.2.2	255.255.255.252	N/A
		2001:db8:2::2	/126	N/A
	S0/1/1	10.10.3.1	255.255.255.252	N/A
		2001:db8:3::1	/126	N/A
RTR-2	G/0/0/0	10.10.1.1	255.255.255.0	N/A
	G0/0/1	2001:db8:1::1	/64	N/A
	S0/1/0	10.10.2.1	255.255.255.252	N/A
		2001:db8:2::1	/126	N/A
RTR-3	G0/0/0	10.10.5.1	255.255.255.0	N/A
	G0/0/1	2001:db8:5::1	/64	N/A
	S0/1/0	10.10.3.2	255.255.255.252	N/A
		2001:db8:3::2	/126	N/A
PC-1	NIC	10.10.1.10	255.255.255.0	10.10.1.1
Laptop A	NIC	10.10.1.20	255.255.255.0	10.10.1.1
PC-2	NIC	2001:db8:1::10	/64	fe80::1
PC-3	NIC	2001:db8:1::20	/64	fe80::1
PC-4	NIC	10.10.5.10	255.255.255.0	10.10.5.1
Server 1	NIC	10.10.5.20	255.255.255.0	10.10.5.1
Laptop B	NIC	2001:db8:5::10	/64	fe80::1
Laptop C	NIC	2001:db8:5::20	/64	fe80::1
Corporate Server	NIC	203.0.113.100	255.255.255.0	203.0.113.1
		2001:db8:acad::100	/64	fe80::1

Objectives

In this lab you will use ICMP to test network connectivity and locate network problems. You will also correct simple configuration issues and restore connectivity to the network.

- Use ICMP to locate connectivity issues.

- Configure network devices to correct connectivity issues.

Background

Customers have been complaining that they can't reach some network resources. You have been asked to test connectivity in the network. You use ICMP to find out which resources are unreachable and the locations from which they can't be reached. Then, you use trace to locate the point at which network connectivity is broken. Finally, you fix the errors that you find to restore connectivity to the network.

Instructions

All hosts should have connectivity to all other hosts and the Corporate Server.

- Wait until all link lights are green.

- Select a host and use ICMP ping to determine which hosts are reachable from that host.

- If a host is found to be unreachable, use ICMP trace to locate the general location of the network errors.

- Locate the specific errors and correct them.