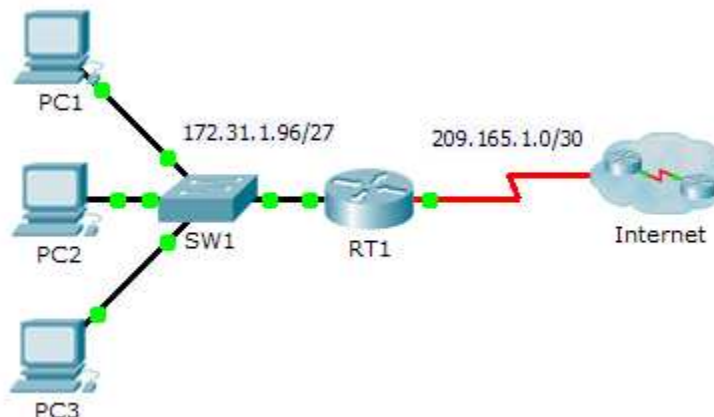


# Packet Tracer - Configuring Extended ACLs - Scenario 3

## Topology



## Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
RT1	G0/0	172.31.1.126	255.255.255.224	N/A
	S0/0/0	209.165.1.2	255.255.255.252	N/A
PC1	NIC	172.31.1.101	255.255.255.224	172.31.1.126
PC2	NIC	172.31.1.102	255.255.255.224	172.31.1.126
PC3	NIC	172.31.1.103	255.255.255.224	172.31.1.126
Server1	NIC	64.101.255.254		
Server2	NIC	64.103.255.254		

## Objectives

**Part 1: Configure a Named Extended ACL**

**Part 2: Apply and Verify the Extended ACL**

## Background / Scenario

In this scenario, specific devices on the LAN are allowed to various services on servers located on the Internet.

## Part 1: Configure a Named Extended ACL

Use one named ACL to implement the following policy:

- Block HTTP and HTTPS access from **PC1** to **Server1** and **Server2**. The servers are inside the cloud and you only know their IP addresses.
- Block FTP access from **PC2** to **Server1** and **Server2**.

- Block ICMP access from **PC3** to **Server1** and **Server2**.

**Note:** For scoring purposes, you must configure the statements in the order specified in the following steps.

### Step 1: Deny PC1 to access HTTP and HTTPS services on Server1 and Server2.

- a. Create an extended IP access list named ACL which will deny **PC1** access to the HTTP and HTTPS services of **Server1** and **Server2**. Because it is impossible to directly observe the subnet of servers on the Internet, four rules are required.

What is the command to begin the named ACL?

- b. Record the statement that denies access from **PC1** to **Server1**, only for HTTP (port 80).
- c. Record the statement that denies access from **PC1** to **Server1**, only for HTTPS (port 443).
- d. Record the statement that denies access from **PC1** to **Server2**, only for HTTP.
- e. Record the statement that denies access from **PC1** to **Server2**, only for HTTPS.

### Step 2: Deny PC2 to access FTP services on Server1 and Server2.

- a. Record the statement that denies access from **PC2** to **Server1**, only for FTP (port 21 only).
- b. Record the statement that denies access from **PC2** to **Server2**, only for FTP (port 21 only).

### Step 3: Deny PC3 to ping Server1 and Server2.

- a. Record the statement that denies ICMP access from **PC3** to **Server1**.
- b. Record the statement that denies ICMP access from **PC3** to **Server2**.

### Step 4: Permit all other IP traffic.

By default, an access list denies all traffic that does not match any rule in the list. What command permits all other traffic?

## Part 2: Apply and Verify the Extended ACL

The traffic to be filtered is coming from the 172.31.1.96/27 network and is destined for remote networks. Appropriate ACL placement also depends on the relationship of the traffic with respect to **RT1**.

### Step 1: Apply the ACL to the correct interface and in the correct direction.

- a. What are the commands you need to apply the ACL to the correct interface and in the correct direction?

**Step 2: Test access for each PC.**

- a. Access the websites of **Server1** and **Server2** using the Web Browser of **PC1** and using both HTTP and HTTPS protocols.
- b. Access FTP of **Server1** and **Server2** using **PC1**. The username and password is "**cisco**".
- c. Ping **Server1** and **Server2** from **PC1**.
- d. Repeat Step 2a to Step 2c with **PC2** and **PC3** to verify proper access list operation.