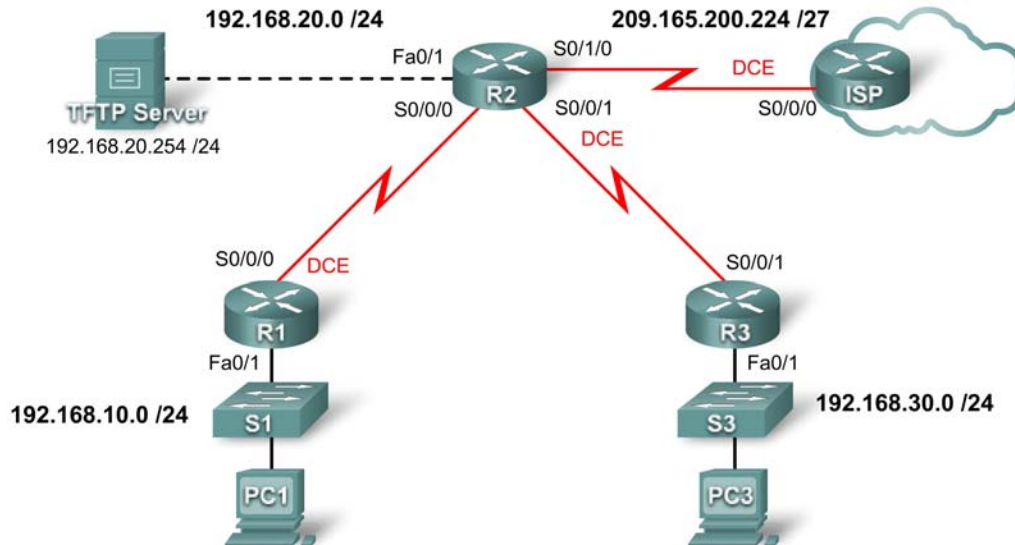# PT Activity 4.7.1: Packet Tracer Skills Integration Challenge

Topology Diagram

Addressing Table

Device	Interface	IP Address	Subnet Mask
ISP	S0/0/0	209.165.200.226	255.255.255.252
R1	Fa0/1	192.168.10.1	255.255.255.0
R1	S0/0/0	10.1.1.1	255255.255.252
R2	Fa0/1	192.168.20.1	255.255.255.0
R2	S0/0/0	10.1.1.2	255.255.255.252
R2	S0/0/1	10.2.2.1	255.255.255.252
R2	S0/1/0	209.165.200.225	255.255.255.252
R3	Fa0/1	192.168.30.1	255.255.255.0
R3	S0/0/1	10.2.2.2	255.255.255.252
PC1	NIC	192.168.10.10	255.255.255.0
PC3	NIC	192.168.30.10	255.255.255.0
TFTP Server	NIC	192.168.20.254	255.255.255.255

Learning Objectives

- Configure routing.
- Configure OSPF authentication.
- Upgrade the Cisco IOS image.

Introduction

This activity is a cumulative review of the chapter covering OSPF routing, authentication, and upgrading the Cisco IOS image. Use the passwords **cisco** and **class** to access EXEC modes of the CLI for all routers.

Task 1: Configure Routing

Step 1. Configure a default route to ISP.

On R2, use the exit interface argument to configure a default route to ISP.

Step 2. Configure OSPF routing between R1, R2, and R3.

Configure OSPF routing on all three routers. Use process ID 1. Disable OSPF updates on appropriate interfaces.

Step 3. Propagate the default route.

Step 4. Check results.

Your completion percentage should be 59%. If not, click **Check Results** to see which required components are not yet completed.

Task 2: Configure OSPF Authentication

Step 1. Configure MD5 authentication between R1, R2, and R3.

Configure OSPF MD5 authentication between R1, R2, and R3 using **1** as the key value and a **cisco123** as the password.

Step 2. Check results.

Your completion percentage should be 91%. If not, click **Check Results** to see which required components are not yet completed.

Task 3: Upgrade the Cisco IOS Image

Step 1. Copy a newer image from the TFTP server to flash on R2.

Look under the Config tab for the TFTP server to determine the name of the newer Cisco IOS image. Then copy the newer image to flash on R2.

Step 2. Configure R2 to boot with the new image.

Step 3. Save the configuration and reload.

Verify that the new image is loaded in RAM.

Step 4. Check results.

Your completion percentage should be 100%. If not, click **Check Results** to see which required components are not yet completed.