Packet Tracer - Configure Syslog and NTP (Instructor Version)

Instructor Note: Red font color or gray highlights indicate text that appears in the instructor copy only.

Answers: 24.2.1 Packet Tracer - Configure Syslog and NTP

Objectives

Part 1: Configure Syslog Service

Part 2: Generate Logged Events

Part 3: Manually Set Switch Clocks

Part 4: Configure NTP Service

Part 5: Verify Timestamped Logs

Scenario

In this activity, you will enable and use the Syslog service and the NTP service so that the network administrator is able to monitor the network more effectively.

Instructions

Part 1: Configure Syslog Service

Step 1: Enable the Syslog service.

a. Click the **Syslog** server, then select the **Services** tab.

b. Turn the **Syslog** service on and move the window so you can monitor activity.

Step 2: Configure the intermediary devices to use the Syslog service.

a. Configure **R1** to send log events to the **Syslog** server.

```
R1(config)# logging 10.0.1.254
```

b. Configure **S1** to send log events to the **Syslog** server.

```
S1(config)# logging 10.0.1.254
```

c. Configure **S2** to send log events to the **Syslog** server.

```
S2(config)# logging 10.0.1.254
```

Part 2: Generate Logged Events

Step 1: Change the status of interfaces to create event logs.

a. Configure a Loopback 0 interface on **R1** then disable it.

```
R1(config)# interface loopback 0
R1(config-if)# shutdown
```

b. Turn off **PC1** and **PC2**. Turn them on again.

Step 2: Examine the Syslog events.

a. Look at the Syslog events. **Note**: All of the events have been recorded; however, the time stamps are incorrect.

b. Clear the log before proceeding to the next part.

Part 3: Manually Set Switch Clocks

Step 1: Manually set the clocks on the switches.

Manually set the clock on **S1** and **S2** to the current date and approximate time. An example is provided.

```
S1# clock set 11:47:00 July 10 2020
```

Step 2: Enable the logging timestamp service on the switches.

Configure **S1** and **S2** to send its timestamp with logs it sends to the **Syslog** server.

```
S1(config)# service timestamps log datetime msec
S2(config)# service timestamps log datetime msec
```

Part 4: Configure NTP Service

Step 1: Enable the NTP service.

In this activity, we are assuming that the NTP service is being hosted on a public Internet server. If the NTP server was private, authentication could also be used.

a. On the NTP server, open the **Services** tab of the **NTP** server.

b. Turn the NTP service on and note the date and time that is displayed.

Step 2: Automatically set the clock on the router.

Set the clock on **R1** to the date and time according to the NTP server.

```
R1(config)# ntp server 64.103.224.2
```

Issue the **show clock** command to view the system clock setting. It can take time for the system clock to be updated to the time that is configured on the NTP server. If the system clock has not updated, click the Fast Forward time button until the router system clock is synchronized with the NTP server.

Part 5: Verify Timestamped Logs

Step 1: Change the status of interfaces to create event logs.

a. Re-enable and then disable the Loopback 0 interface on R1.

```
R1(config)# interface loopback 0
R1(config-if)# no shutdown
R1(config-if)# shutdown
```

b. Turn off laptops **L1** and **L2**. Turn them on again.

Step 2: Examine the Syslog events.

Look at the Syslog events. **Note**: All of the events have been recorded and the time stamps are correct as configured. **Note**: **R1** uses the clock settings from the NTP server, and **S1** and **S2** use the clock settings that you configured in Part 3.