8.15 Lab: Configure QoS

Score: 0%

Task Summary

Required Actions and Questions

✕ Create an alias   Show Details

✕ Use the Traffic Shaper wizard for dedicated links using one WAN connection

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✕ Configure the Traffic Shaper   Show Details

✕ Prioritize voice-over IP traffic   Show Details

✕ Enable and configure a penalty box   Show Details

✕ Raise and lower the applicable application's priority   Show Details

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✕ *Q1:* How many firewall rules were created?

    Your answer:

    Correct answer: 7

✕ Change the port number used for the MSRDP outbound rule

Explanation 🎧

Complete this lab as follows:

1. Sign in to the pfSense management console.
   a. In the Username field, enter **admin**.
   b. In the Password field, enter **P@ssw0rd** (0 = zero).
   c. Select **SIGN IN** or press **Enter**.
2. Create a high bandwidth usage alias.
   a. From the pfSense menu bar, select **Firewall** > **Aliases**.
   b. Select **Add**.
   c. Configure the Properties as follows:
   - Name: **HighBW**
   - Description: **High bandwidth users**
   - Type: **Host(s)**
   d. Add the IP addresses of the offending computers to the host(s) configuration as follows:
   - Under Host(s), in the *IP or FQDN* field, enter **172.14.1.25** for Vera's system.
   - Select **Add Host**.

- In the new *IP or FQDN* field, enter **172.14.1.100** for Paul's system.

   e. Select **Save**.

   f. Select **Apply Changes**.

3. Start the Traffic Shaper wizard for dedicated links.
   a. From the pfSense menu bar, select **Firewall** > **Traffic Shaper**.
   b. Under the Firewall bread crumb, select **Wizards**.
   c. Select **traffic_shaper_wizard_dedicated.xml**.
   d. Under Traffic Shaper wizard, verify that the *Enter number of WAN type connections* field is set to **1** and then select **Next**.

4. Configure the Traffic Shaper.
   a. Make sure you are on Step 1 of 8.
   b. Using the drop-down menu for the upper Local interface, select **GuestWi-Fi**.
   c. Using the drop-down menu for the lower Local interface, make sure **PRIQ** is selected.
   d. For the upper *Upload* field, enter **8**.
   e. Using the drop-down menu for the lower *Upload* field, select **Mbit/s**.
   f. For the top Download field, enter **50**.
   g. Using the drop-down menu for the lower *Download* field, select **Mbit/s**.
   h. Select **Next**.

5. Prioritize voice-over IP traffic.
   a. Make sure you are on Step 2 of 8.
   b. Under *Voice over IP*, select **Enable** to prioritize the voice over IP traffic.
   c. Under *Connection #1 parameters*, in the Upload rate field, enter **10**.
   d. Using the drop-down menu for the top Units, select **Mbit/s**.
   e. For the Download rate, enter **20**.
   f. Using the drop-down menu for the bottom Units, select **Mbit/s**.
   g. Select **Next**.

6. Enable and configure a penalty box.
   a. Make sure you are on Step 3 of 8.
   b. Under Penalty Box, select **Enable** to enable the penalize IP or alias option.
   c. In the Address field, enter **HighBW**. This is the alias created earlier.
   d. For Bandwidth, enter **3**.
   e. Select **Next**.

7. Continue to step 6 of 8.
   a. For Step 4 of 8, scroll to the bottom and select **Next**.
   b. For Step 5 of 8, scroll to the bottom and select **Next**.

8. Raise and lower the applicable application's priority.
   a. Make sure you are on Step 6 of 8.
   b. Under Raise or lower other Applications, select **Enable** to enable other networking protocols.
   c. Under Remote Service / Terminal emulation, use the:
      - MSRDP drop-down menu to select **Higher priority**.
      - VNC drop-down menu to select **Higher priority**.
   d. Under VPN:
      - Use the PPTP drop-down menu to select **Higher priority**.
      - Use the IPSEC drop-down menu to select **Higher priority.**
   e. Scroll to the bottom and select **Next**.
   f. For step 7 of 8, select **Finish**.
      Wait for the reload status to indicate that the rules have been created (look for Done).

9. View the floating rules created for the firewall.
   a. Select **Firewall** > **Rules**.
   b. Under the Firewall breadcrumb, select **Floating**.
   c. From the top right, select **Questions**.
   d. Answer the question and then minimize the question dialog.

10. Change the port number used for the MSRDP outbound rule.

a. For the *m_Other MSRDP outbound* rule, select the ***edit*** icon (pencil).

b. Under Edit Firewall Rule, in the *Interface* field, select **GuestWi-Fi**.

c. Under Destination, use the Destination Port Range drop-down menu to select **Other**.

d. In both Custom fields, enter **3391**.

e. Select **Save**.

f. Select **Apply Changes**.