PALO ALTO NETWORKS - EDU 210

Lab 1: Initial Configuration

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Contents

Introduction

The long-awaited moment has arrived. Your new Palo Alto Networks Firewall appliance has arrived, and the networking team has put it in the racks and wired it up. It is now your job as the Security Engineer to configure and test the firewall.

You have decided that the first thing you would like to do is create a new admin account that can only work with certain features of the firewall. To setup these restrictions you are going to have to create and administrator role and then assign it to the new admin account you create.

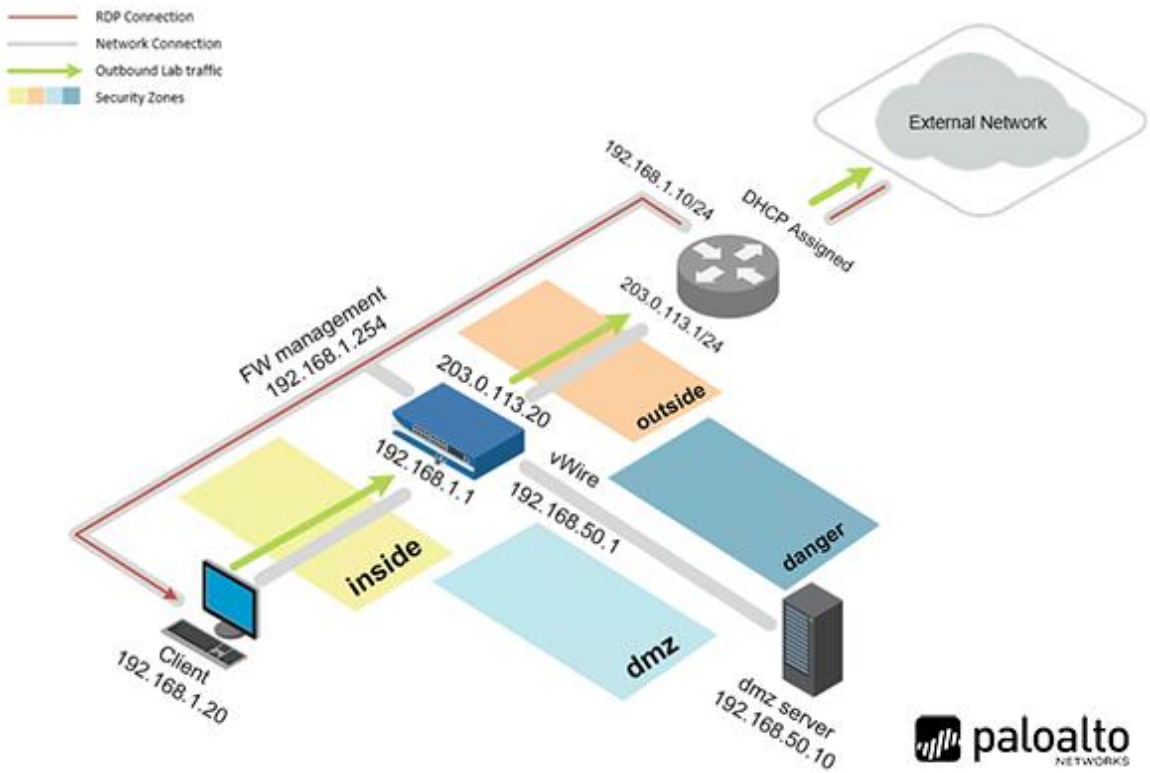
You also want to test the ability to prevent others from making or committing changes to the firewall while you are working. You have learned that this can be done with commit locks.

Finally, you need to make sure the firewall is updating with new signatures and updates on a regular basis, so you are going to configure the dynamic updates to do this for you.

Objectives

- Load a configuration.
- Create an administrator role.
- Create a new administrator and apply an administrator role.
- Observe the newly created role permissions via the CLI and WebUI.
- Create and test a commit lock.
- Configure DNS servers for the firewall.
- Schedule dynamic updates.

Lab Topology



Lab Settings

The information in the table below will be needed in order to complete the lab. The task sections below provide details on the use of this information.

Virtual Machine	IP Address	Account (if needed)	Password (if needed)
Client – Windows 2012 R2	192.168.1.20	lab-user	Pal0Alt0
Firewall – PA-VM	192.168.1.254	admin	admin

1 Lab: Initial Configuration

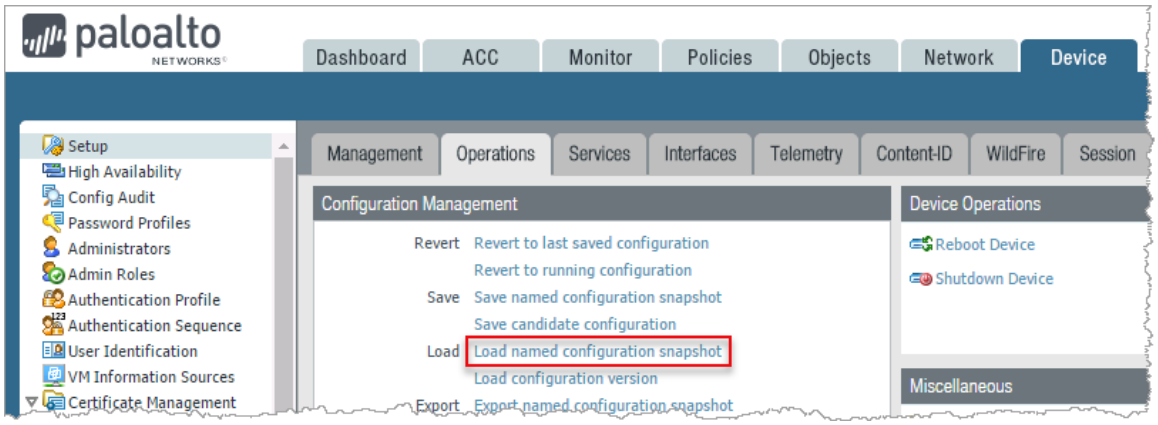
1.0 Connect to Your Student Firewall

1. Launch a browser and connect to `https://192.168.1.254`.
2. Log in to the Palo Alto Networks firewall using the following:

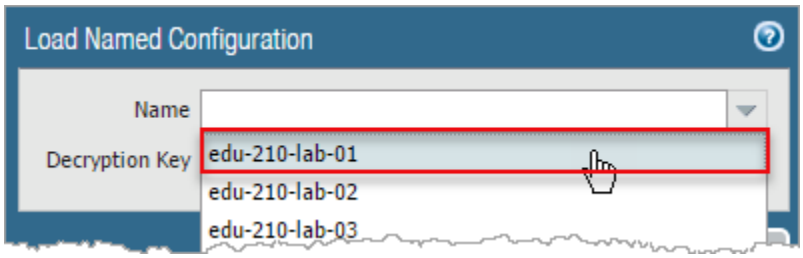
Parameter	Value
Name	`admin`
Password	`admin`

1.1 Apply a Baseline Configuration to the Firewall

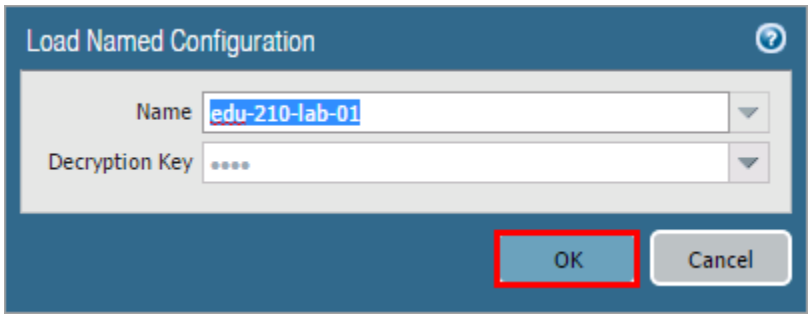
1. In the Palo Alto Networks firewall WebUI, select **Device > Setup > Operations**.
2. Click **Load named configuration snapshot**:



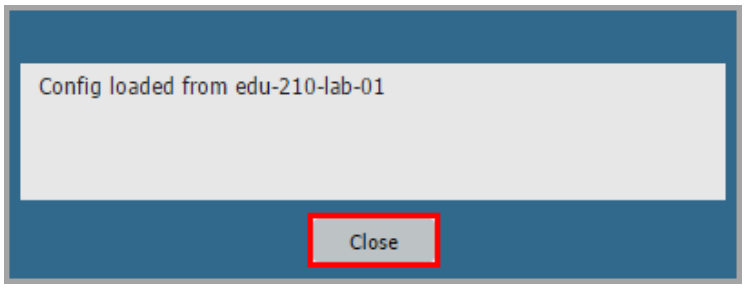
3. Click the drop-down list next to the Name text box and select **edu-210-lab-01**.



4. Click **OK**.



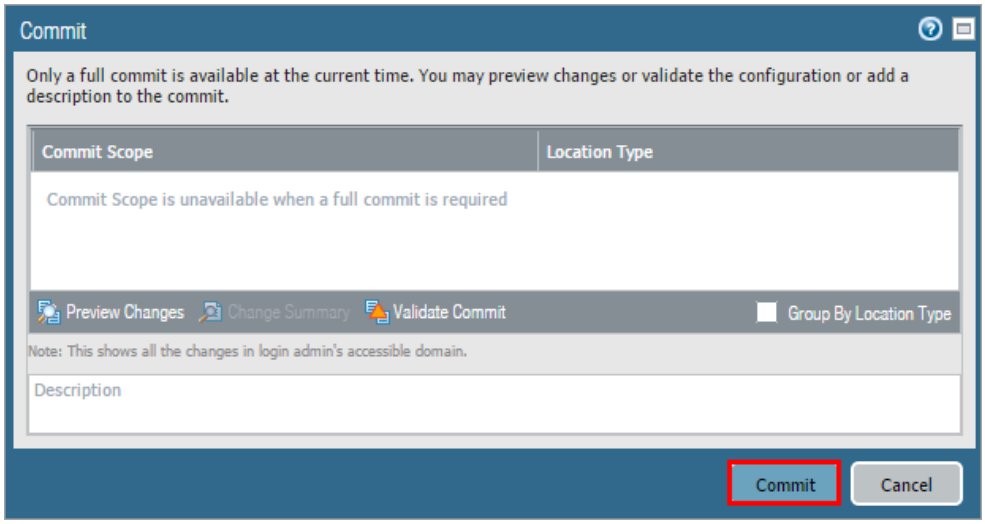
5. After some time, a confirmation that the configuration has been loaded appears. Click **Close**.



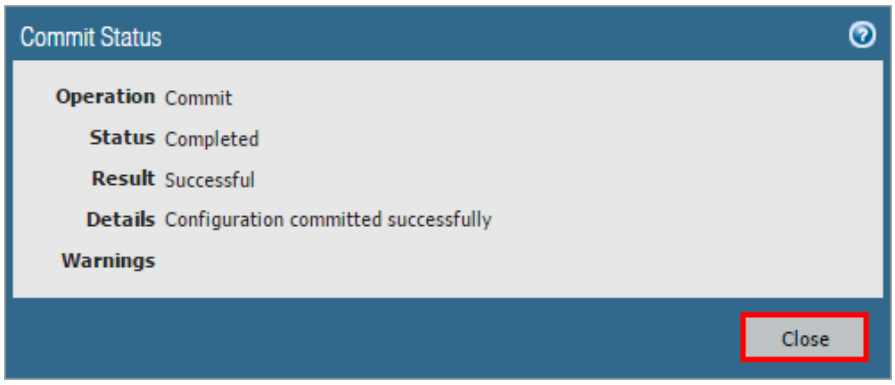
The following instructions are the steps to execute a "**Commit All**" as you will perform many times throughout these labs.

6. Click the **Commit** link at the top right of the WebUI.

7. Click **Commit** and wait until the commit process is complete.



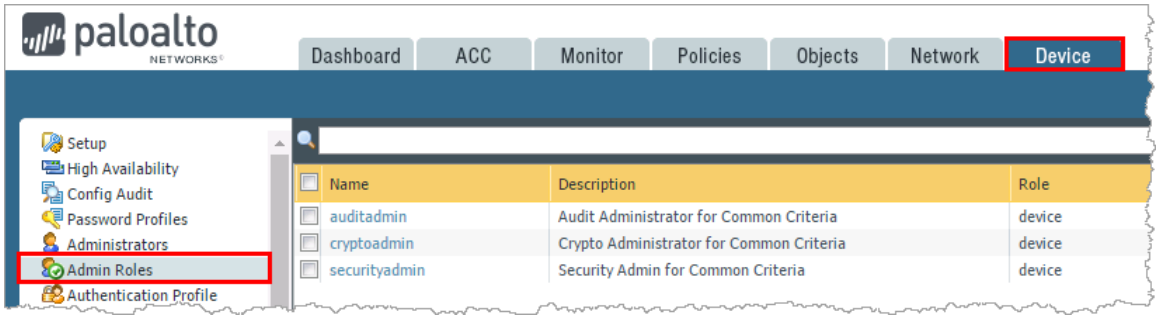
8. Click **Close** to continue.



Note: Continue if warned about a full commit.

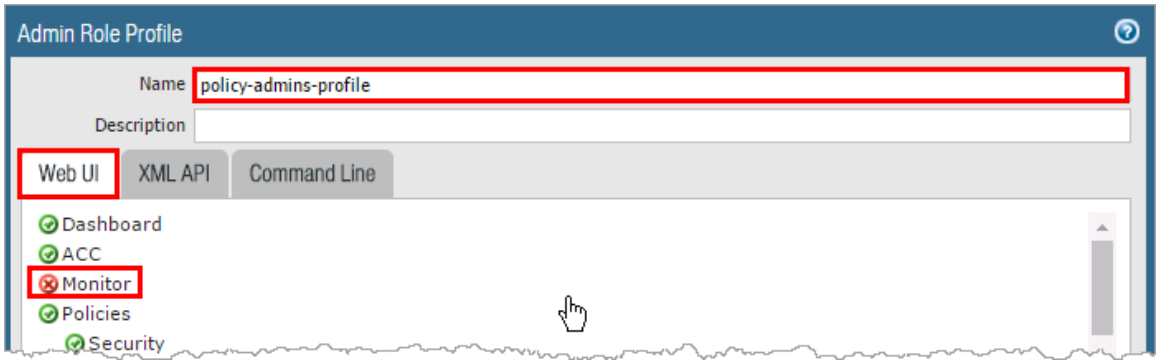
1.2 Add an Admin Role Profile

1. Select **Device > Admin Roles**.



2. Click **Add** in the lower-left corner of the panel to create a new administrator role:

3. In the Admin Role Profile wizard enter the following:

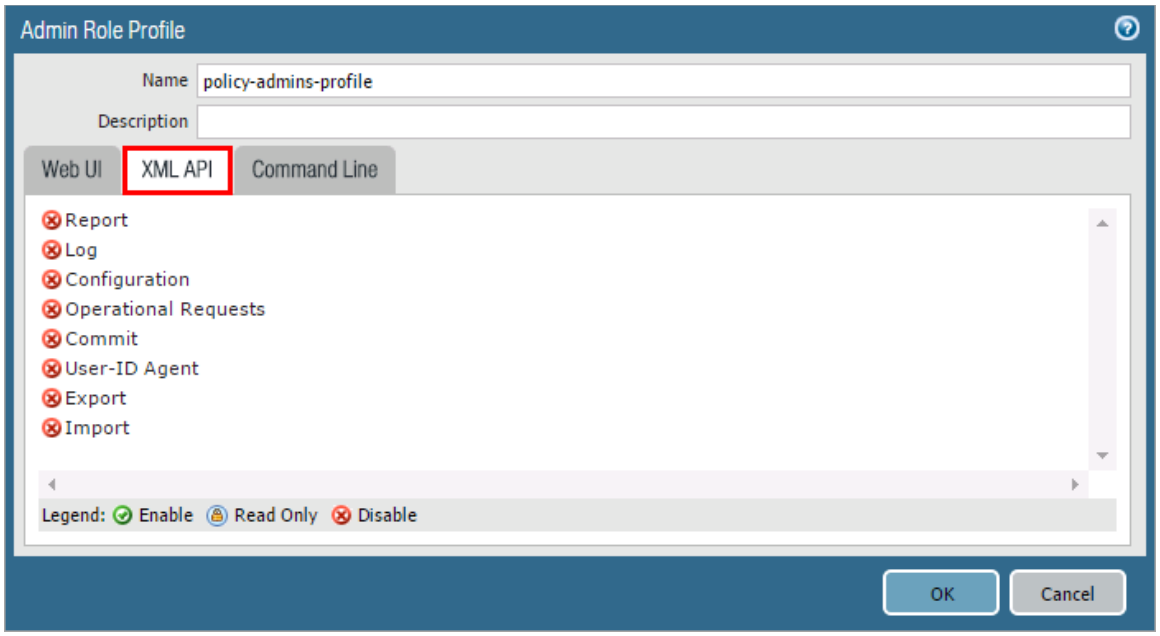


4. Type `policy-admins-profile` in the **Name** textbox.

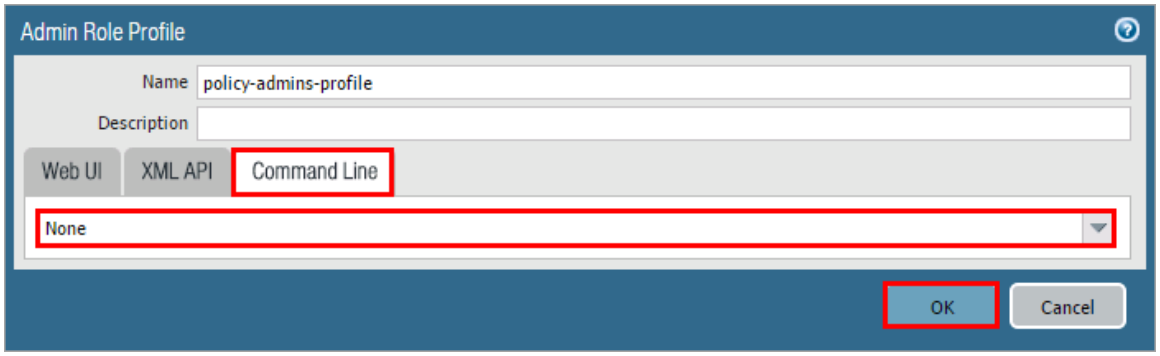
5. Under the **Web UI** tab, click the icon to disable the following:

Parameter	Value
Monitor	⊗
Network	⊗
Device	⊗
Privacy	⊗

6. Click the **XML API** tab and verify that all items are disabled.



7. Click the **Command Line** tab and verify that the selection is none then click **OK** to continue.



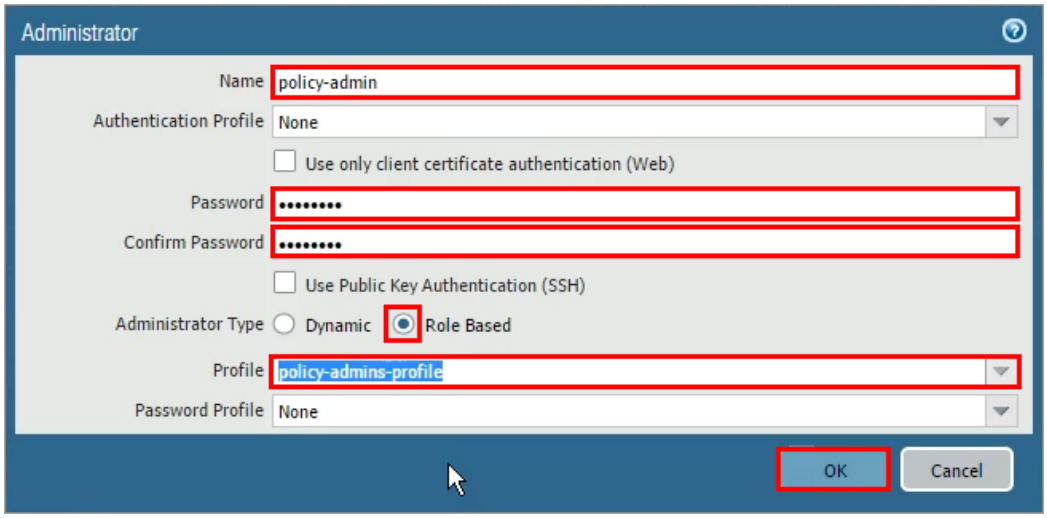
1.3 Add an Administrator Account

1. Select **Device > Administrators**.

2. Click **Add** in the lower-left corner of the panel to open the Administrator configuration window.

3. Configure the following:

Parameter	Value
Name	`policy-admin`
Authentication Profile	**None**
Password	`paloalto`
Administrator Type	Role Based
Profile	**policy-admins-profile**
Password Profile	**None**

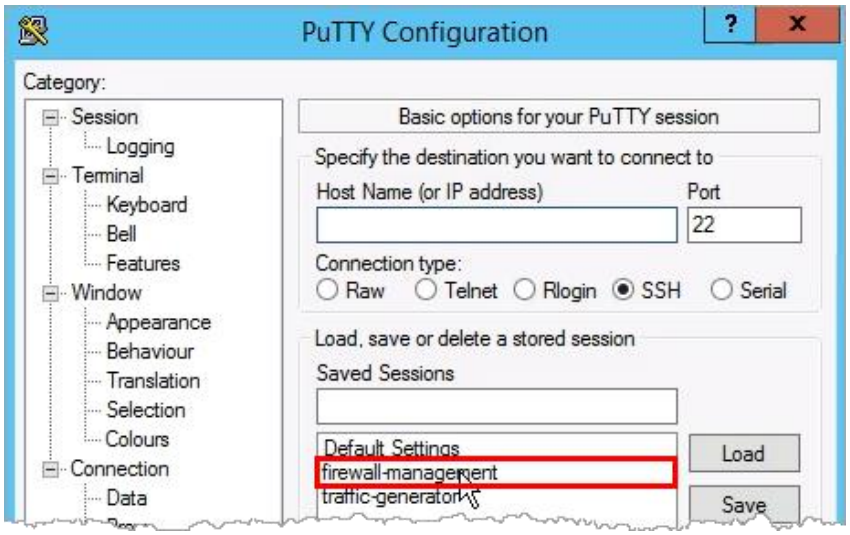


4. Click OK.
5. **Commit** all changes.

1.4 Test the policy-admin User

1. Open **PuTTY** from the Windows desktop.

2. Double-click **firewall-management**:



3. Log in using the following information:

Parameter	Value
Name	`admin`
Password	`admin`

The role assigned to this account is allowed CLI access, so the connection should succeed.

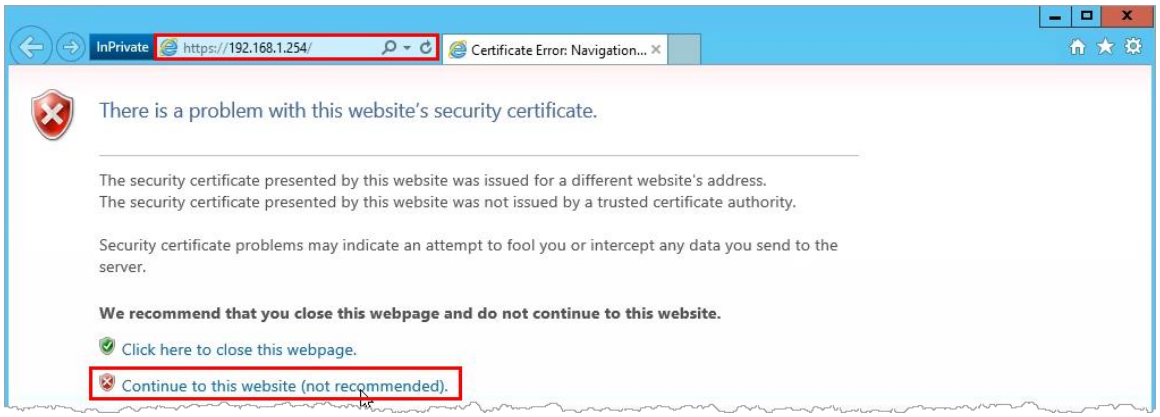
```
login as: admin
Using keyboard-interactive authentication.
Password:
Last login: Mon Jul 10 11:00:21 2017 from 192.168.1.20

Number of failed attempts since last successful login: 0


admin@lab-firewall>
```

4. Close the **PuTTY** window and then open **PuTTY** again.
5. Open an SSH connection to **firewall-management**.
6. Log in using the following information (*the window will **close** if authentication is **successful***):

Parameter	Value
Name	policy-admin
Password	paloalto

```
login as: policy-admin
Using keyboard-interactive authentication.
Password:
```

7. Open a *different* browser (not a tab) in private/incognito mode and browse to **`https://192.168.1.254`**. A Certificate Warning might appear.



Click through the Certificate Warning. The Palo Alto Networks firewall login page opens.

8. Log in using the following information (this action must be done in a different browser):

Parameter	Value
Name	policy-admin
Password	paloalto

9. **Close** the Welcome window if one is presented.
10. Explore the available functionality of the WebUI. Notice that several tabs and functions are excluded from the interface because of the Admin Role assigned to this user account.

1.5 Take a Commit Lock and Test the Lock

The web interface supports multiple concurrent administrator sessions by enabling an administrator to lock the candidate or running configuration so that other administrators cannot change the configuration until the lock is removed.

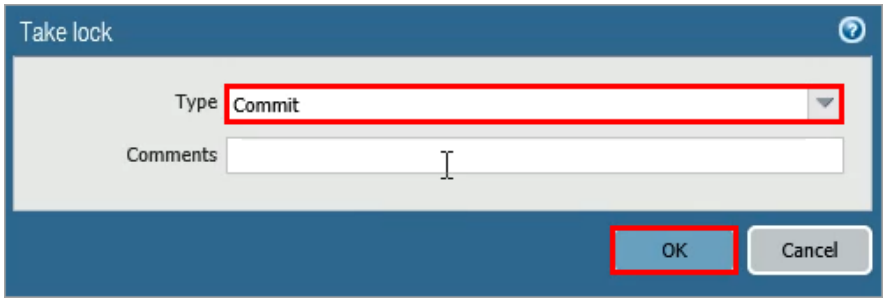
1. From the WebUI where you are logged in as *policy-admin*, click the **transaction lock** icon to the right of the Commit link.

The **Locks** windows opens.

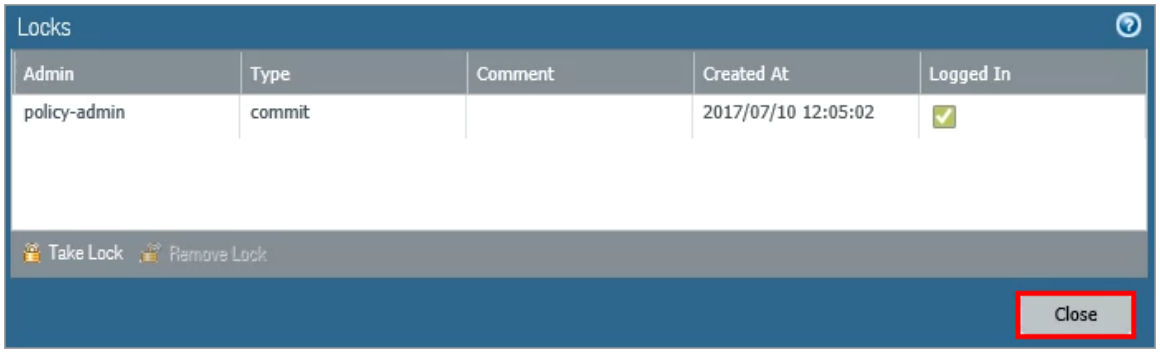
2. Click **Take Lock**.

A **Take lock** window opens.

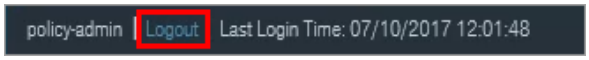
3. Set the Type to **Commit**, and click **OK**. The policy-admin lock is listed in the Locks window.



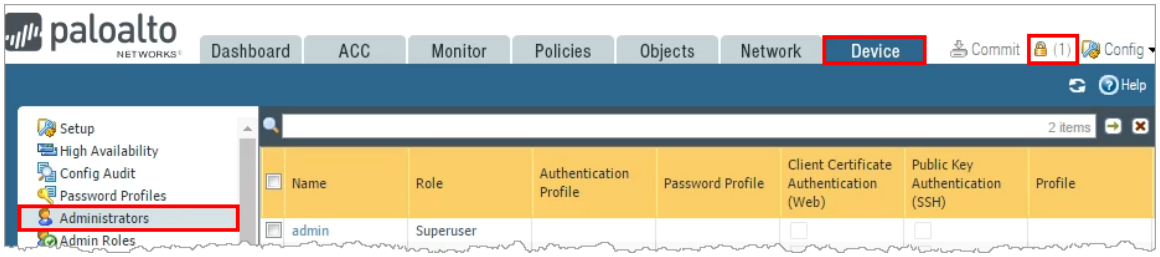
4. Click **Close** to close the Locks window.



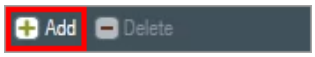
5. Click the **Logout** button on the bottom-left corner of the WebUI:



6. Close the policy-admin browser window.
7. Return to the WebUI where you are logged in as admin.
8. Click the **Device > Administrators** link. The WebUI refreshes. Notice the lock icon in the upper-right corner of the WebUI.



9. Click **Add** to add another administrator account.

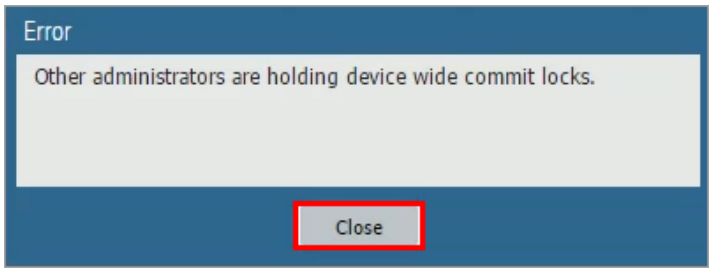


10. Configure the following:

Parameter	Value
Name	`test-lock`
Authentication Profile	**None**
Password	`paloalto`
Administrator Type	Role Based
Profile	**policy-admins-profile**
Password Profile	**None**

11. Click **OK**. The new test-lock user is listed.

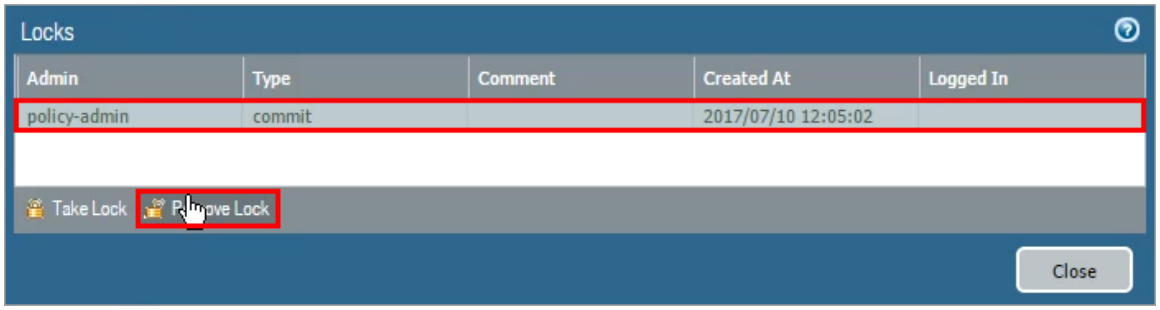
12. **Commit** all changes. Although you could add a new administrator account, you are not allowed to commit the changes because of the Commit lock set by the policy-admin user:



Click **Close**.

13. Click the **transaction lock** icon in the upper-right corner:

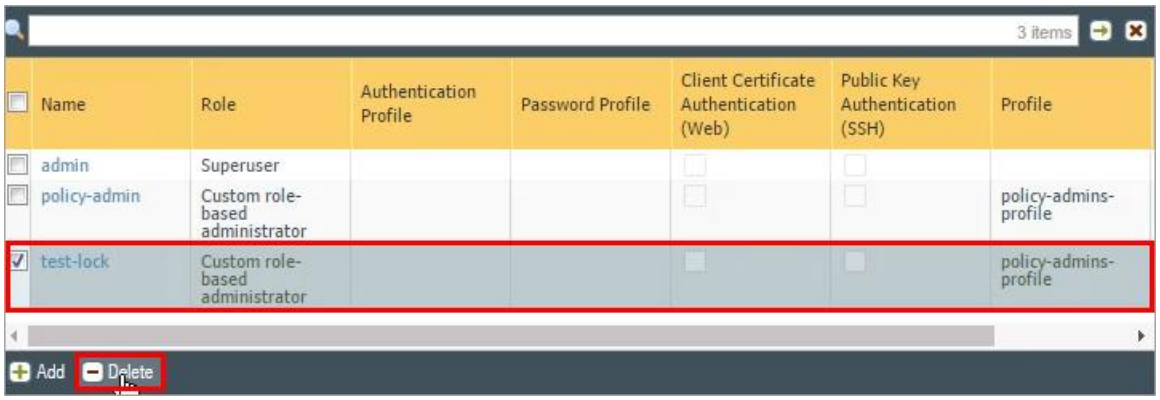
14. Select the **policy-admin** lock and click **Remove Lock**:



Note: The user that took the lock or any superuser can remove a lock.

15. Click **OK** and the lock is removed from the list.

16. Click **Close**.
17. **Commit** all changes. You can now commit the changes.
18. Select the test-lock user and then click **Delete** to delete the test-lock user.

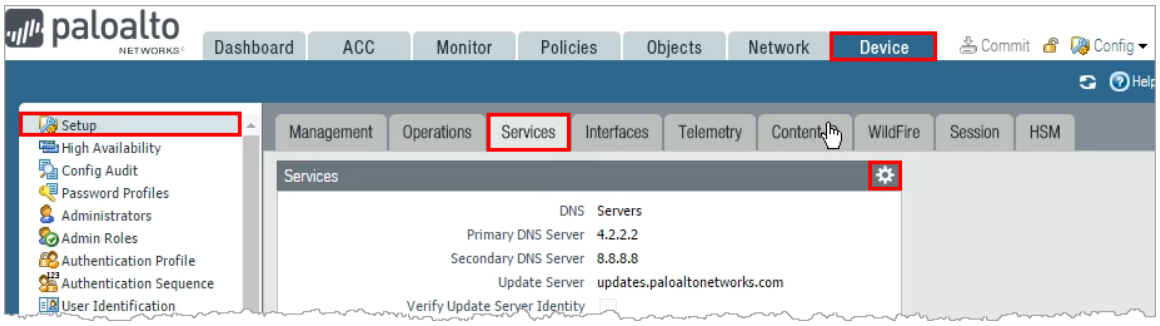


19. Click **Yes** to confirm the deletion.
20. **Commit** all changes.

1.6 Verify the Update and DNS Servers

The DNS server configuration settings are used for all DNS queries that the firewall initiates in support of FQDN address objects, logging, and firewall management.

1. Select **Device > Setup > Services**.
2. Open the Services window by clicking the **icon** in the upper-right corner of the Services panel:

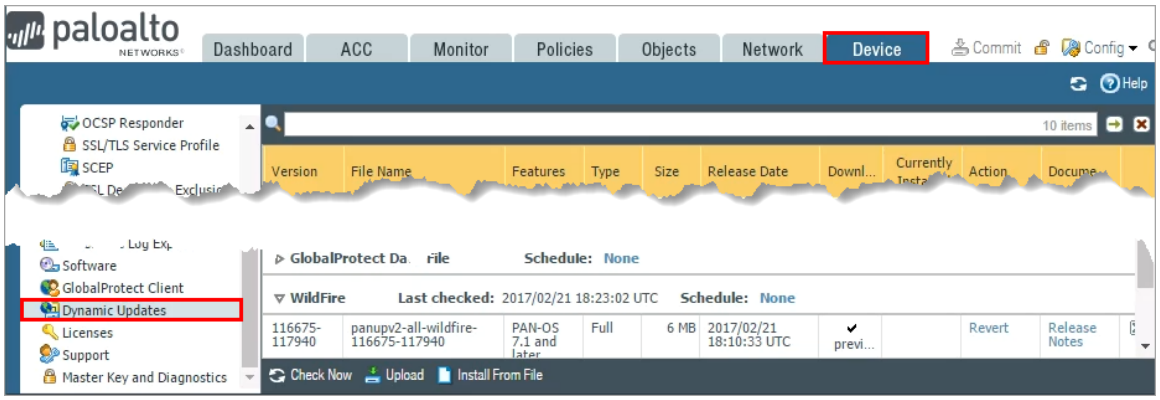


3. Verify that **4.2.2.2** is the Primary DNS Server and that **8.8.8.8** is the Secondary DNS Server.
4. Verify that **updates.paloaltonetworks.com** is the Update Server.
5. Click **OK**.

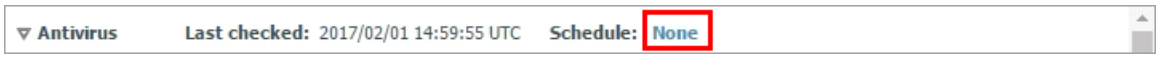
1.7 Schedule Dynamic Updates

Palo Alto Networks regularly posts updates for application detection, threat protection, and GlobalProtect data files through dynamic updates.

1. Select **Device > Dynamic Updates**.



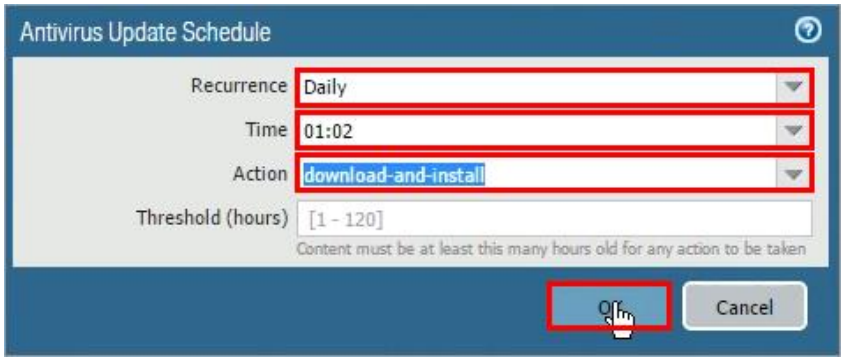
2. Locate and click the hyperlink on the far right of **Antivirus**:



The scheduling window opens. Antivirus signatures are released daily.

3. Configure the following:

Parameter	Value
Recurrence	**Daily**
Time	**01:02**
Action	**download-and-install**

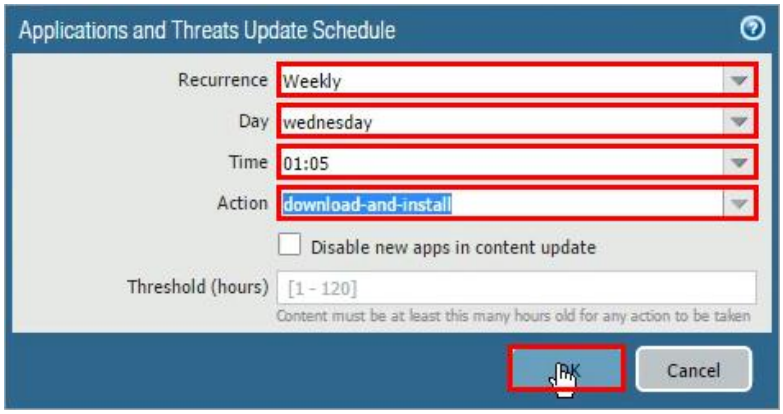


Then click **OK**.

4. Locate and click the hyperlink on the far right of **Application and Threats**. The scheduling window opens. Application and Threat signatures are released weekly.

5. Configure the following:

Parameter	Value
Recurrence	**Weekly**
Day	**wednesday**
Time	**01:05**
Action	**download-and-install**



Click **OK**.

6. Locate and click the hyperlink on the far right of **WildFire**. The scheduling window opens. WildFire signatures can be available within five minutes.

7. Configure the following:

Parameter	Value
Recurrence	**Every Minute**
Action	**download-and-install**

8. Click **OK**.
9. **Commit** all changes.

Stop. This is the end of the Initial Configuration lab.

