Guided Practice: Configure a Windows Server Using an Ansible Playbook

Introduction

Ansible's strengths include the ability to facilitate the configuration of Linux, as well as Windows, servers on your network that include groups that may be dependent on other groups, which can involve the secure backing up of data, configuring firewalls, creating users and groups, and replication.

Outcome

In this Guided Practice, you will create a playbook to demonstrate control of a Windows server firewall in your network.

Resources Needed

- For this Guided Practice, we will use the CentOS 8 and the Windows 2019 server in the VCastle pod configured for this class.

Level of Difficulty

Low

Deliverables

Deliverables are marked with a red border around the screenshot. Additionally, there are guided practice questions at the end which you must respond to.

General Considerations

You should be familiar with Linux and Windows system administration and networking. Secure Shell (ssh) has already been configured on your Ubuntu computer from a prior Guided Practice. Ansible is installed and configured on your CentOS Computer, and you have completed all previous exercises.

Instructions

⚠ *Important*: *Please Note*

All of your screenshots should include information that shows your login information.

Edit the Ansible Inventory (host) File

First, you will edit the Ansible Inventory (host) file to reflect your network architecture, if necessary.

1. View the inventory (hosts) file, and ensure your inventory file reflects the architecture of your network as shown below and includes the [win:vars] section.

```
[webserver]
192.168.1.3

[dbserver]
192.168.1.3

[win]
192.168.1.2

[win:vars]
ansible_user=cis321
ansible_password=Password1
ansible_connection=winrm
ansible_winrm_server_cert_validation=ignore
```

Take a screenshot that resembles the one above, and paste it in your Lab Report.

Write a Playbook to Turn the Windows Firewall Off

(**Note**: This is generally not recommended and included only to demonstrate Ansible functionality.)

1. Open a shell and type the following:

```
vim win_fw_off.yml
i
---
- hosts: win
  tasks:
  - name: Disable firewall for Domain Public and Private profiles
    community.windows.win_firewall:
      state: disabled
      profiles:
      - Domain
      - Private
      - Public
```

```
      tags: disable_firewall
  <ESC>
  :wq
```

```
[alex@localhost ansible5]$ cat win_fw_off.yml
---
- hosts: win
  tasks:
  - name: Disable firewall for Domain Public and Private profiles
    community.windows.win_firewall:
      state: disabled
      profiles:
      - Domain
      - Private
      - Public
    tags: disable_firewall
[alex@localhost ansible5]$
```

Take a screenshot that resembles the one above, and paste it in your Lab Report.

2. Check the syntax and run the playbook. Note that the IP addresses in your output will reflect your network architecture and will differ from what is shown below.

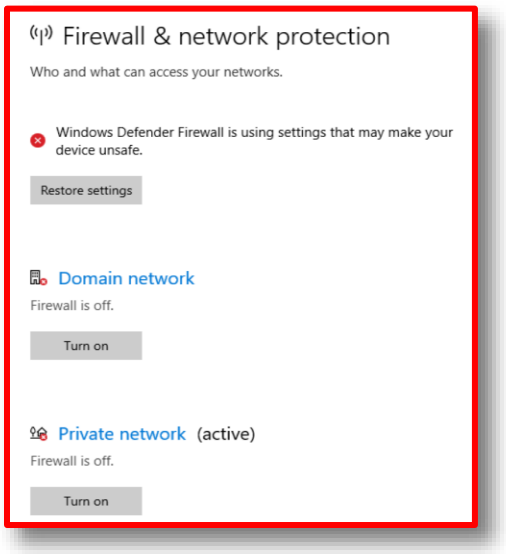
   In your shell type the following:

```
ansible-playbook win_fw_off.yml --syntax-check
ansible-playbook win_fw_off.yml
```

```
[alex@localhost ansible5]$ ansible-playbook win_fw_off.yml

PLAY [win] *********************************************************************************************************

TASK [Gathering Facts] *********************************************************************************************
ok: [192.168.0.77]

TASK [Disable firewall for Domain Public and Private profiles] *****************************************************
changed: [192.168.0.77]

PLAY RECAP *********************************************************************************************************
192.168.0.77               : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

Take a screenshot that resembles the one above, and paste it in your Lab Report.

3. Verify that the firewall is off. Depending on your configuration, you can view the status in Computer Management or via the Server Manager Dashboard under Tools.



Take a screenshot that resembles the one above, and paste it in your Lab Report.

Write a Playbook to Turn the Firewall for the Domain, Public, and Private Profiles Back On

1. Open a shell and type the following:

```
vim win_fw_on.yml
i
---
- hosts: win
  tasks:
  - name: Enable firewall for Domain Public and Private profiles
    community.windows.win_firewall:
      state: enabled
      profiles:
      - Domain
      - Private
      - Public
    tags: enable_firewall
<ESC>
:wq
```

```
[alex@localhost ansible5]$ cat win_fw_on.yml
---
- hosts: win
  tasks:
  - name: Enable firewall for Domain Public and Private profiles
    community.windows.win_firewall:
      state: enabled
      profiles:
      - Domain
      - Private
      - Public
    tags: enable_firewall
[alex@localhost ansible5]$
```

Take a screenshot that resembles the one above, and paste it in your Lab Report.

2. Check the syntax and run the playbook. Note that the IP addresses in your output will reflect your network architecture and will differ from what is shown below.

   In your shell, type the following:

```
ansible-playbook win_fw_on.yml --syntax-check
ansible-playbook win_fw_on.yml
```

```
[alex@localhost ansible5]$ ansible-playbook win_fw_on.yml

PLAY [win] *********************************************************************************************************

TASK [Gathering Facts] *********************************************************************************************
ok: [192.168.0.77]

TASK [Enable firewall for Domain Public and Private profiles] ******************************************************
changed: [192.168.0.77]

PLAY RECAP *********************************************************************************************************
192.168.0.77               : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

Take a screenshot that resembles the one above, and paste it in your Lab Report.

3. Verify that the firewall is on:

Take a screenshot that resembles the one above, and paste it in your Lab Report.

Guided Practice Questions

In your **Guided Practice Lab Report** answer the following questions about this learning activity. Some may require research.

1. When should you run a syntax check?

2. When might you wish to disable the Windows firewall?

3. What precautions should you take?

4. What changes would you make to the playbook to only turn off the Domain network firewall?

5. Would you have to edit the win_fw_off.yml playbook to only turn the Domain network firewall back on?