Cisco CCNA (200-301)

Configuring and Verifying NAT

Learning Objective: Configure and Verify NAT pooling and NAT Overload

Description: The prevalent use of RFC 1918 addresses within a LAN doesn't allow for networks to connect to resources across the internet. You will learn the how to configure NAT to use static, pools and dynamic translations.

- Configure a NAT pool (Dynamic NAT) - Many:Many

  - Remove the Static NAT Translation

```
NYEDGE1(config)#no ip nat inside source static 192.168.16.10 172.14.0.10
Static entry in use, do you want to delete child
entries? [no]:    [Type in no]
NYEDGE1(config)#exit
NYEDGE1#show ip nat translation
NYEDGE1#clear ip nat translation *
NYEDGE1#show ip nat translation
```

```
+

    ```
    NYEDGE1#configure terminal
    NYEDGE1(config)#ip nat pool OUTSIDE 172.14.0.20 172.14.0.30 netmask 255.255.255.0
    NYEDGE1(config)#
    ```


+ Configure ACL to classify what will use the NAT Pool

    ```
    NYEDGE1(config)#access-list 100 permit ip 192.168.16.0 0.0.0.255 any
    NYEDGE1(config)#
    ```


+ Configure ACL to associate with the NAT Pool

    ```
    NYEDGE1(config)#ip nat inside source list 100 pool OUTSIDE
    NYEDGE1(config)#exit
    NYEDGE1#show
    ```


+ Verify from PLABCSCO01

    ```
    ping 172.14.0.1
    ```


+ Verify from NYEDGE1

    ```
    NYEDGE1#show ip nat translation
    NYEDGE1#clear ip nat translation *
    NYEDGE1#show ip nat translation
    ```
```

Q: Though it's not called out on the exam, can you also show us how to configure Port Address Translation too?

- Configure Port Address Translation (One to Many)

- Remember to configure inside and outside NAT interfaces (already done here)

  - ```
    NYEDGE1(config)#no ip nat inside source list 100 pool outside
    ```

- Configure an ACL to identify the the IP using NAT (already done)

  - ```
    NYEDGE1#show ip access-list
    ```

- Configure NAT association between access-list and interface with the key word: overload

  -

NYEDGE1(config)#ip nat inside source list 100
interface gigabitEthernet 0/1 overload
NYEDGE1(config)#exit
NYEDGE1#show ip nat translations

- Verify NAT is working from PLABCSCO01

  - ```
    open broswer and browse to www.practice-labs.com
    ```

- Verify NAT is working from NYEDGE1

  - ```
    NYEDGE1#debug ip nat
    ```

Endnotes, External and Etc.

- 4.1 Configure and verify inside source NAT using static and pools