

Networking Lab 13

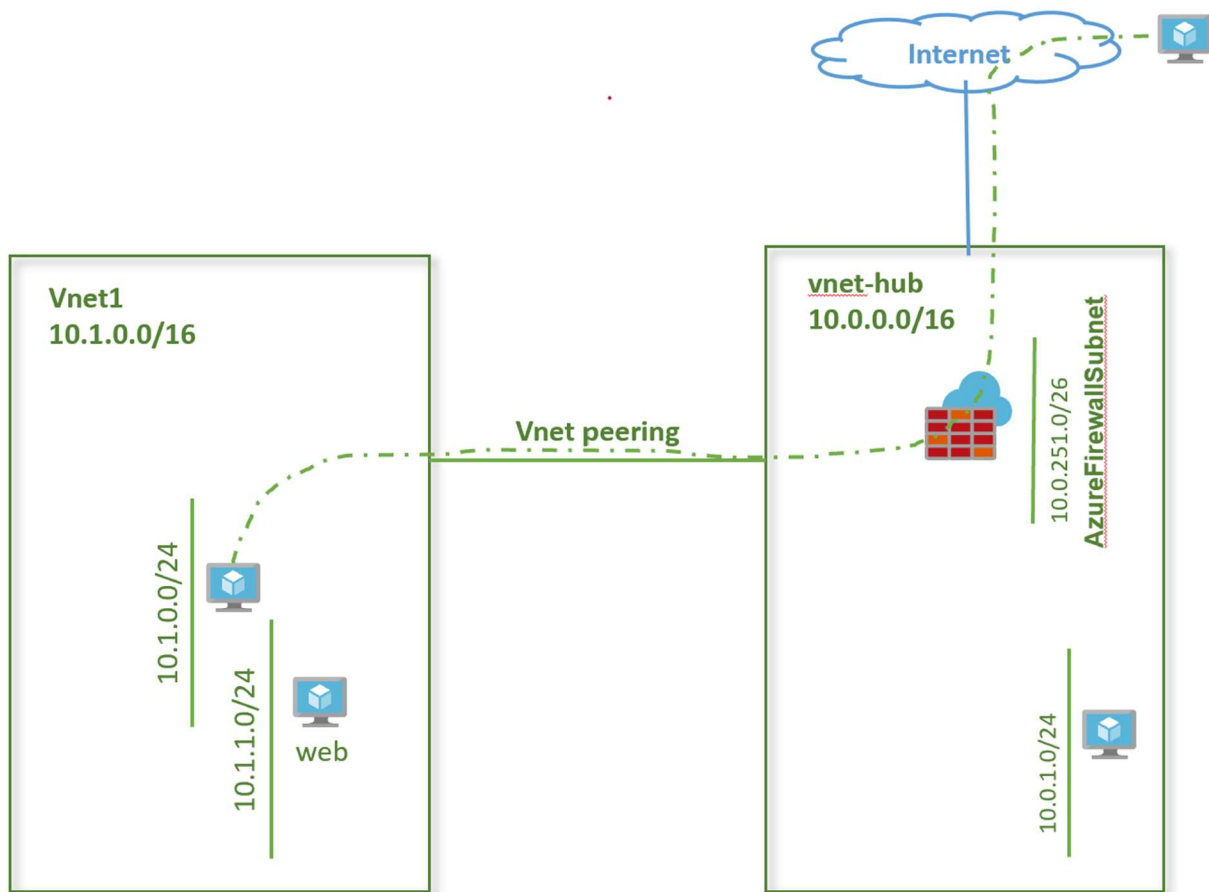
Azure Firewall

Inbound NAT

Lab Overview

In this lab, we will configure inbound NAT via Azure firewall.

Lab Diagram



Lab setup

From the previous firewall lab, we have a firewall deployed in the hub virtual network vnet-hub. We have a spoke vnet, vnet1 configured. We will configure an inbound NAT to be able to ssh to virtual machine in virtual network vnet1

Configure a NAT rule

1. From the Azure portal, go to the firewall **vnet-hub-fw**.
2. On the firewall **vnet-hub-fw** page, under **Settings**, click **Rules**.
3. Click **Add NAT rule collection**.
4. For **Name**, type **inboundNAT**.
5. For **Priority**, type **200**.
6. Under **Rules**, for **Name**, type **NatRule1**.
7. For **Protocol**, select **TCP**.
8. For **Source Addresses**, type *****.
9. For **Destination Addresses** type the firewall's public IP address.
10. For **Destination ports**, type **8022**.
11. For **Translated Address** type the private IP address virtual machine vnet1-vm-mgmt1.
12. For **Translated port**, type **22**.
13. Click **Add**.

Verify the NAT function

1. Start a SSH session to firewall public IP address.

```
ssh azureuser@52.137.90.68 -p 8022
```

```
azureuser@52.137.90.68's password:
```

```
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 5.0.0-1023-azure x86_64)
```

```
* Documentation: https://help.ubuntu.com
```

```
* Management:   https://landscape.canonical.com
```

```
* Support:      https://ubuntu.com/advantage
```

```
System information as of Sat Nov 16 11:14:23 UTC 2019
```

```
System load: 0.0          Processes:      117
```

```
Usage of /: 4.2% of 28.90GB  Users logged in: 0
```

```
Memory usage: 4%          IP address for eth0: 10.1.1.4
```

```
Swap usage: 0%
```

...

azureuser@vnet1-vm-mgmt1:~\$ **sudo ifconfig**

[sudo] password for azureuser:

eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500

inet **10.1.1.4** netmask 255.255.255.0 broadcast 10.1.1.255

inet6 fe80::20d:3aff:fec3:4c5f prefixlen 64 scopeid 0x20<link>

ether 00:0d:3a:c3:4c:5f txqueuelen 1000 (Ethernet)

RX packets 12710 bytes 9369406 (9.3 MB)

RX errors 0 dropped 0 overruns 0 frame 0

TX packets 9599 bytes 2096002 (2.0 MB)

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536

inet 127.0.0.1 netmask 255.0.0.0

inet6 ::1 prefixlen 128 scopeid 0x10<host>

loop txqueuelen 1000 (Local Loopback)

RX packets 2132 bytes 255548 (255.5 KB)

RX errors 0 dropped 0 overruns 0 frame 0

TX packets 2132 bytes 255548 (255.5 KB)

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

azureuser@vnet1-vm-mgmt1:~\$

You are now able to successfully connect to the virtual machine **vnet1-vm-mgmt1** using the firewall inbound NAT rule.