ARM Template – 3 NIC 2 vThunder HA Instances Test Cases

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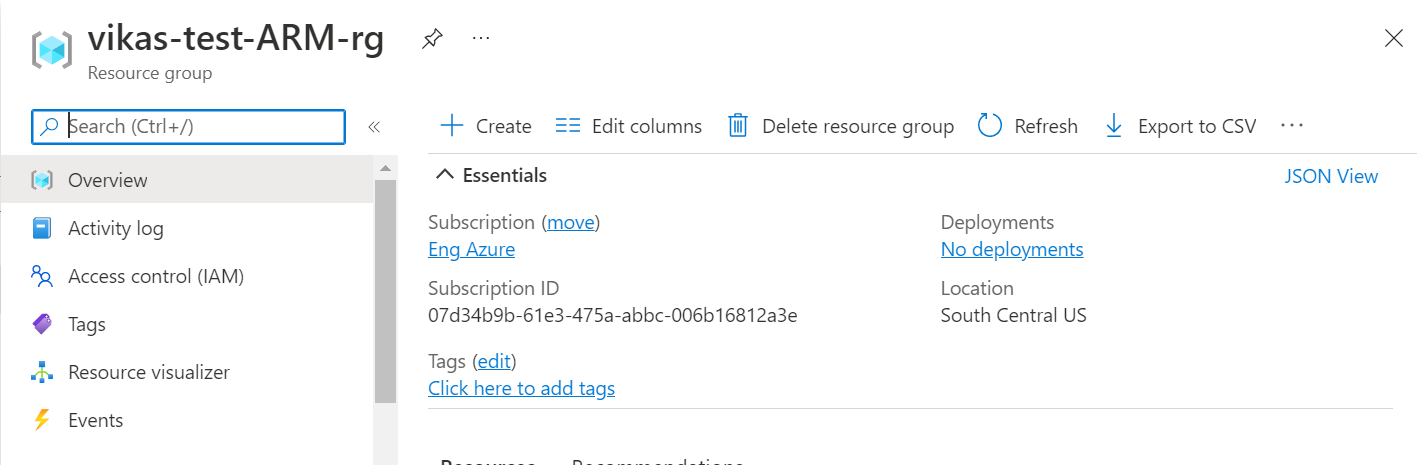
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# Resource Creation

## Resource Group

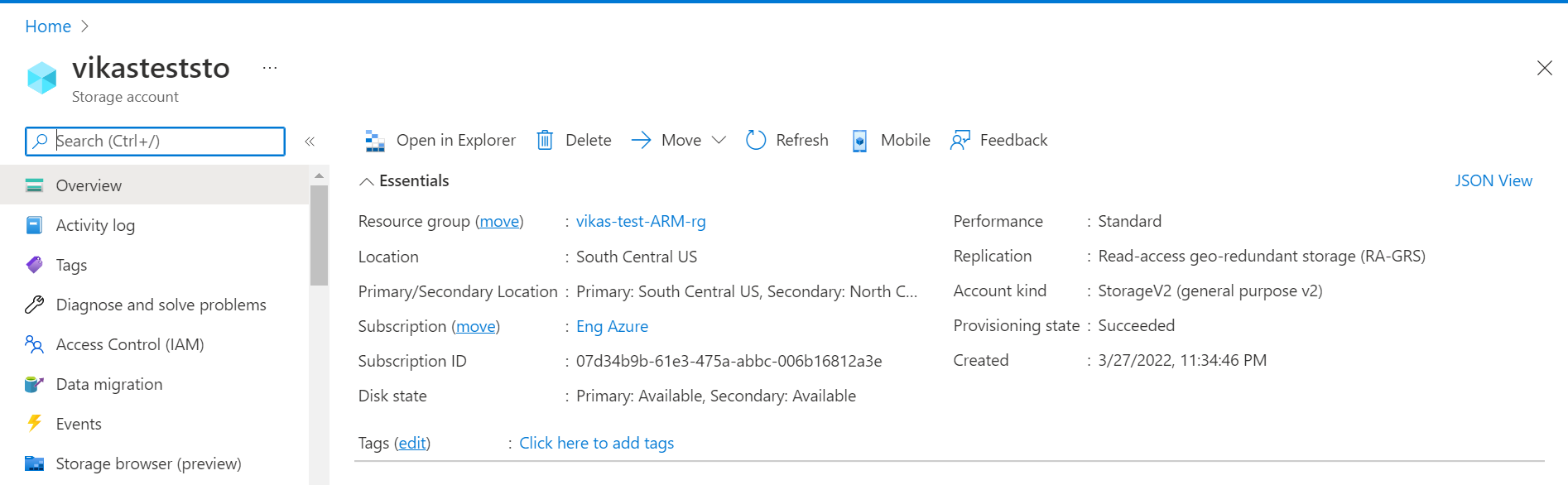
* + 1. Expected Outcome: 1 resource group should get created if not exists else existing resource group will be used.
    2. Actual Outcome:
       1. 1 new resource group name “vikas-test-ARM-rg” is created when it was not present.



* + - 1. When resource group is “vikas-test-ARM-rg” is present then resource group is used.

## Storage Account

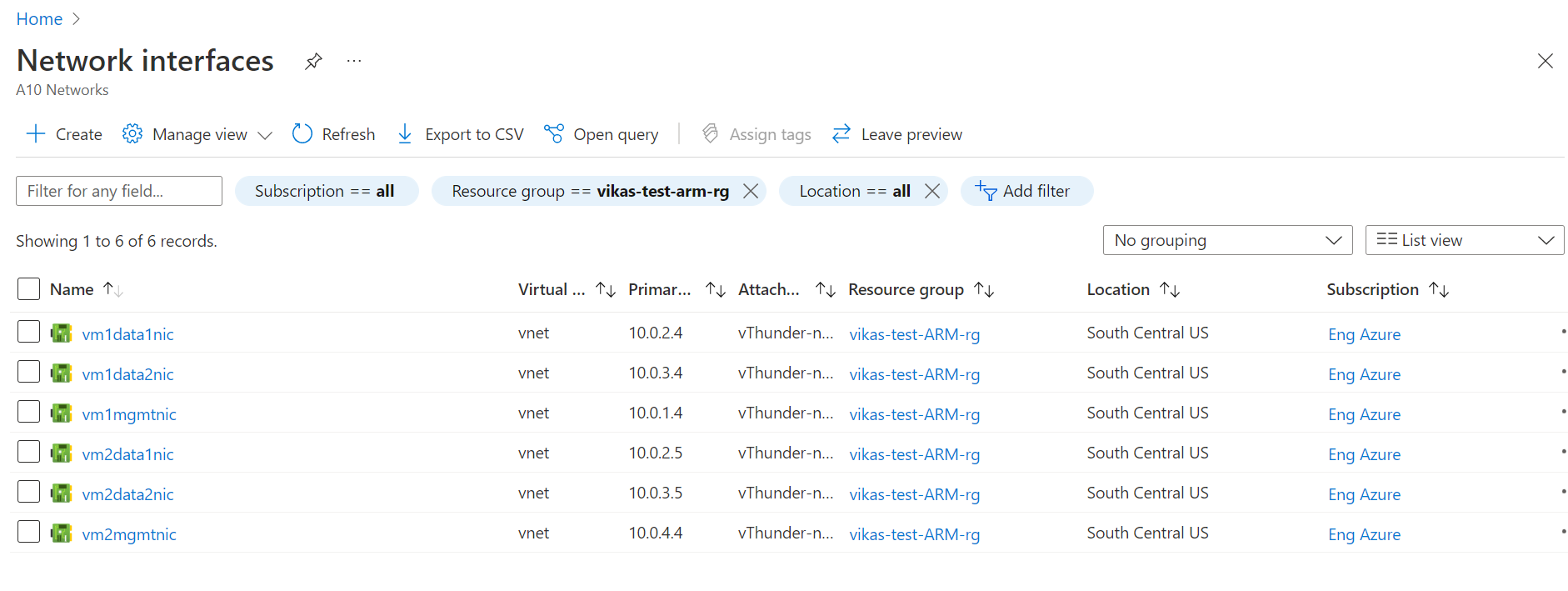
* + 1. Expected Outcome: 1 storage account should get created if not exists else existing storage account will be used.
    2. Actual Outcome:
       1. 1 storage account name “vikasteststo” is created when not already present.



* + - 1. When storage account “vikasteststo” already exists then it is used.

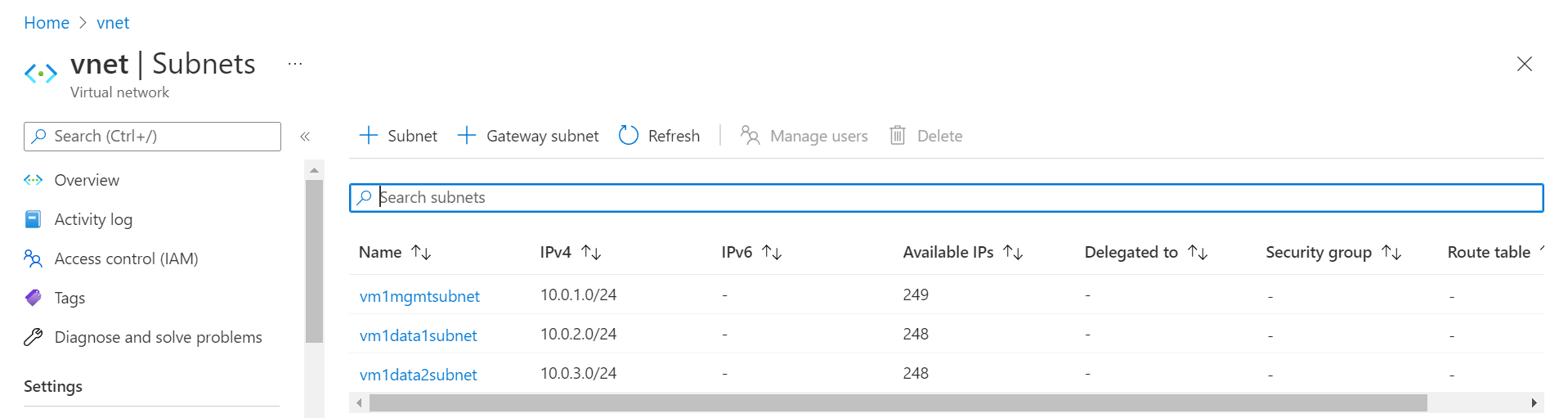
## Interfaces

* + 1. Expected Outcome: 6 interfaces (2 management, 4 data interfaces) should get created, and each interface is from different subnet.
    2. Actual Outcome: 6 interfaces are created and attached to VMs.



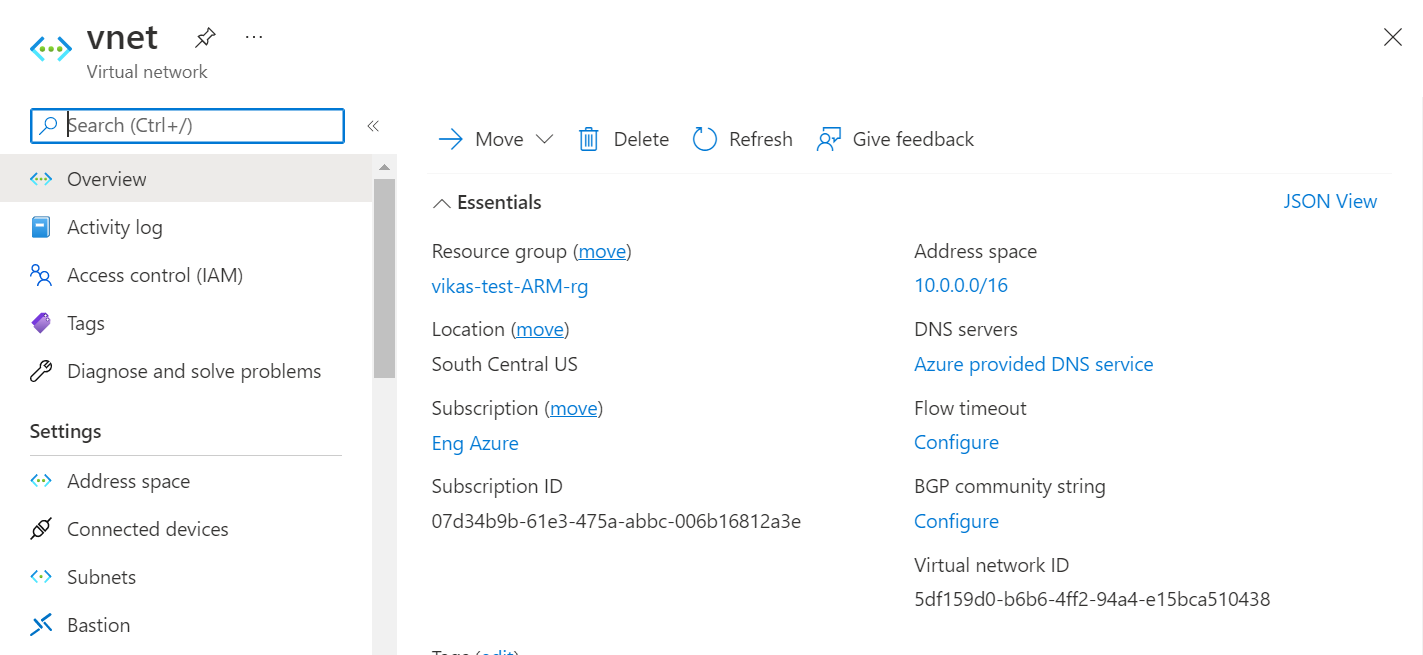
## Subnets

* + 1. Expected Outcome: 3 subnets should get created.
    2. Actual Outcome: 3 subnets are created.



## Virtual Network

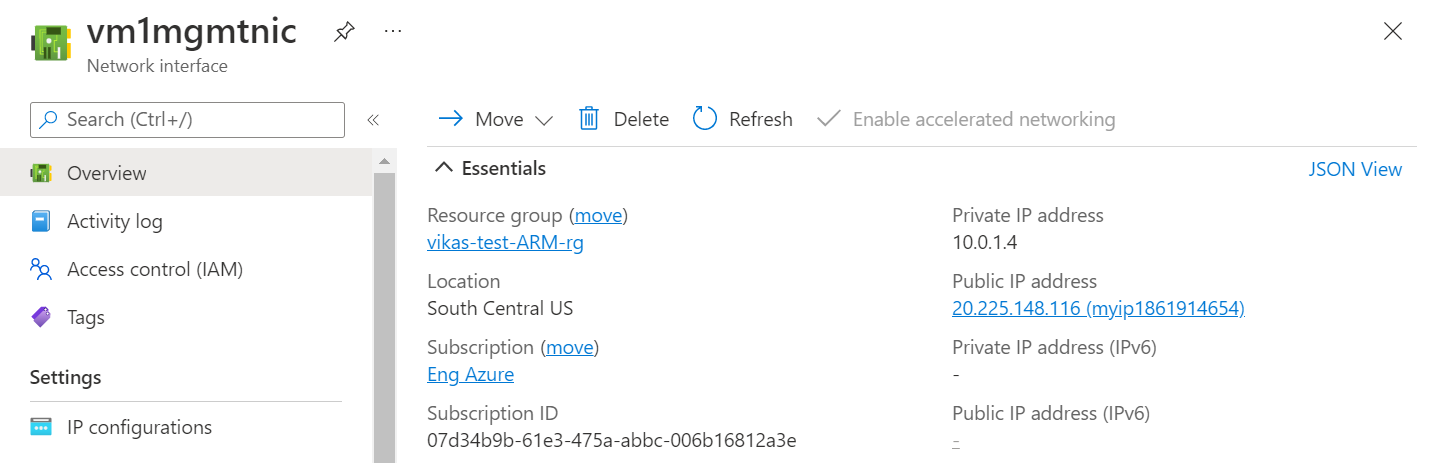
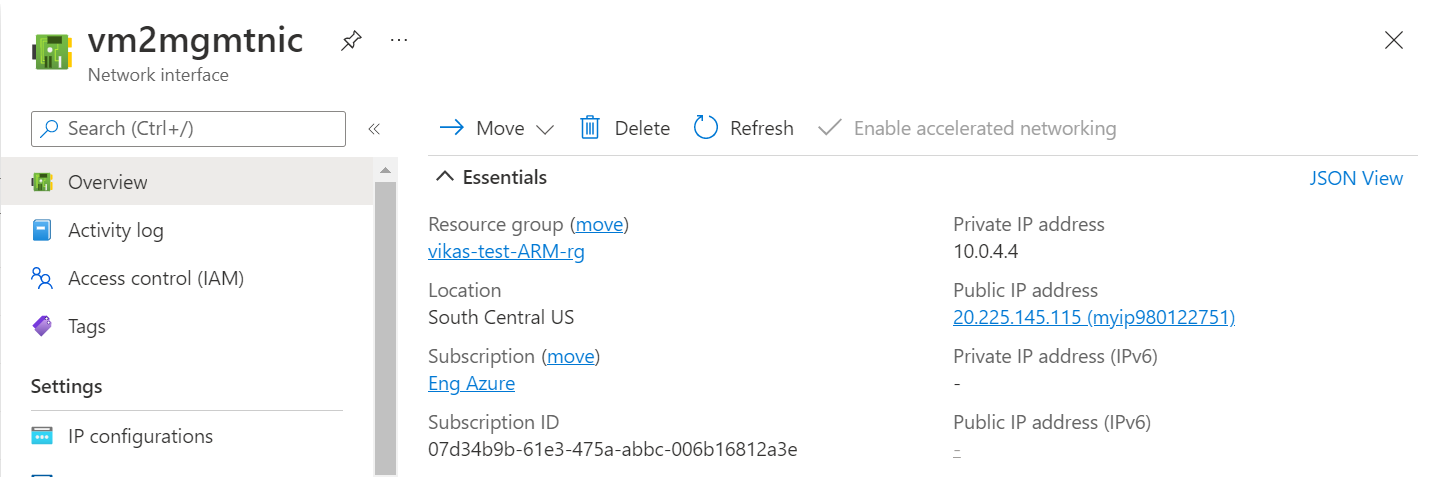
* + 1. Expected Outcome: 1 virtual network should get created if not exists else present virtual network will be used.
    2. Actual Outcome: 1 virtual network is created name “vnet”.



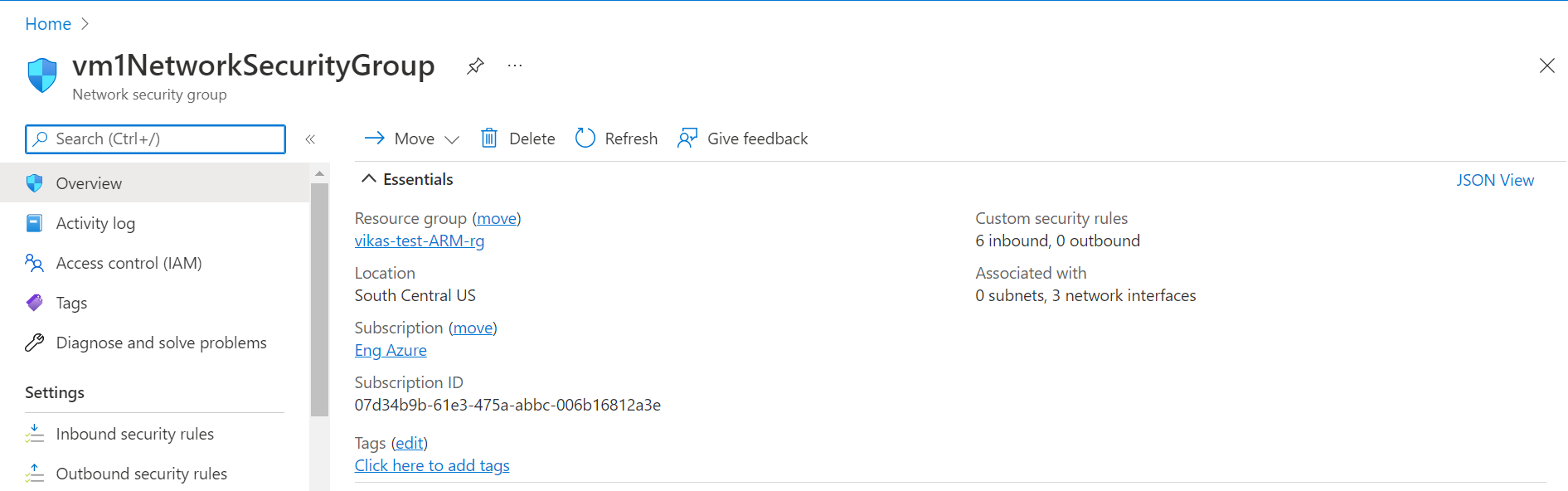
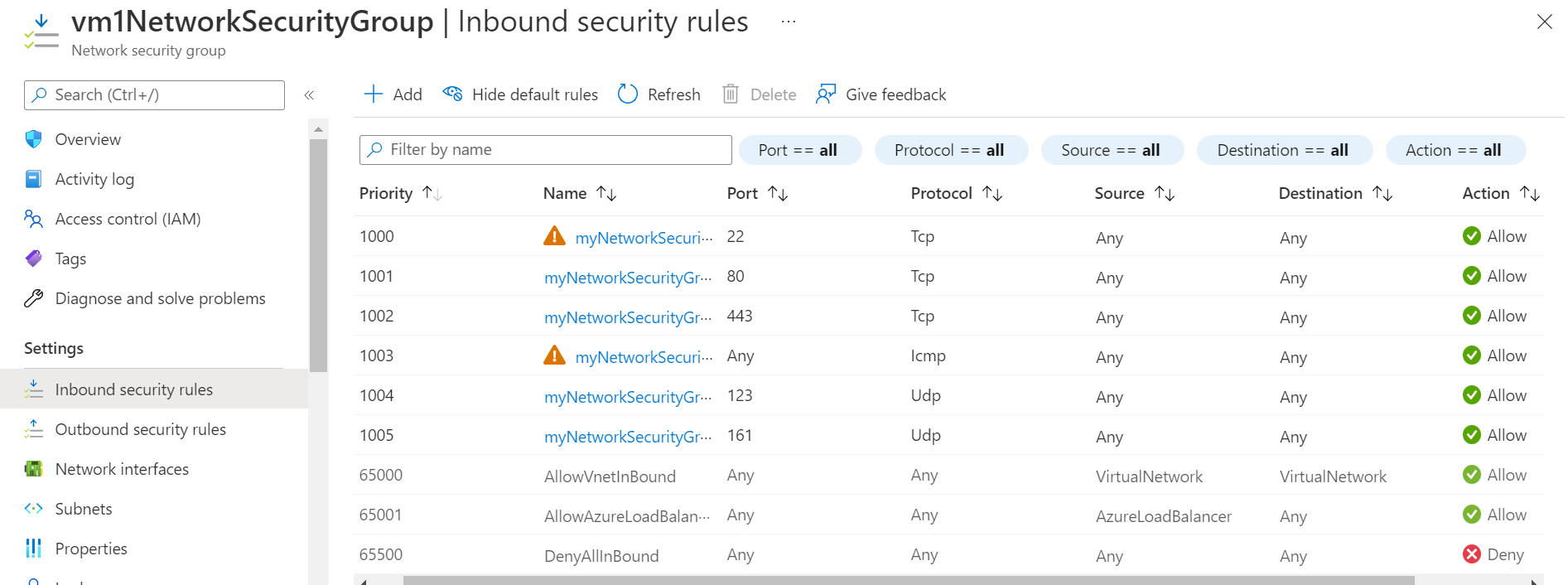
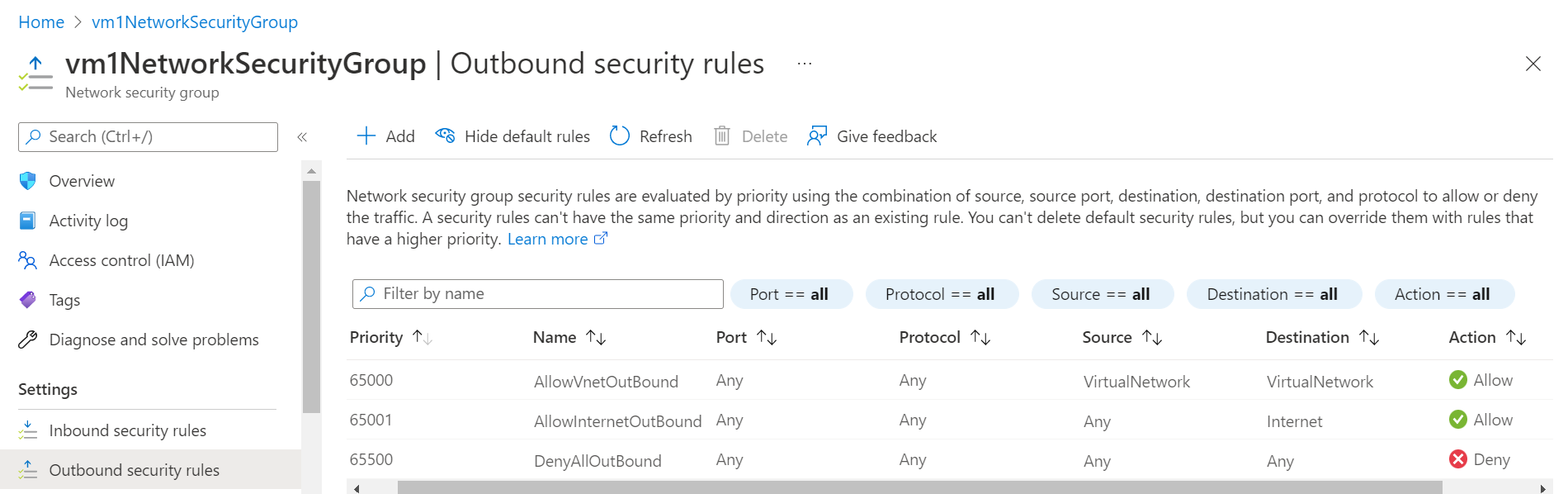
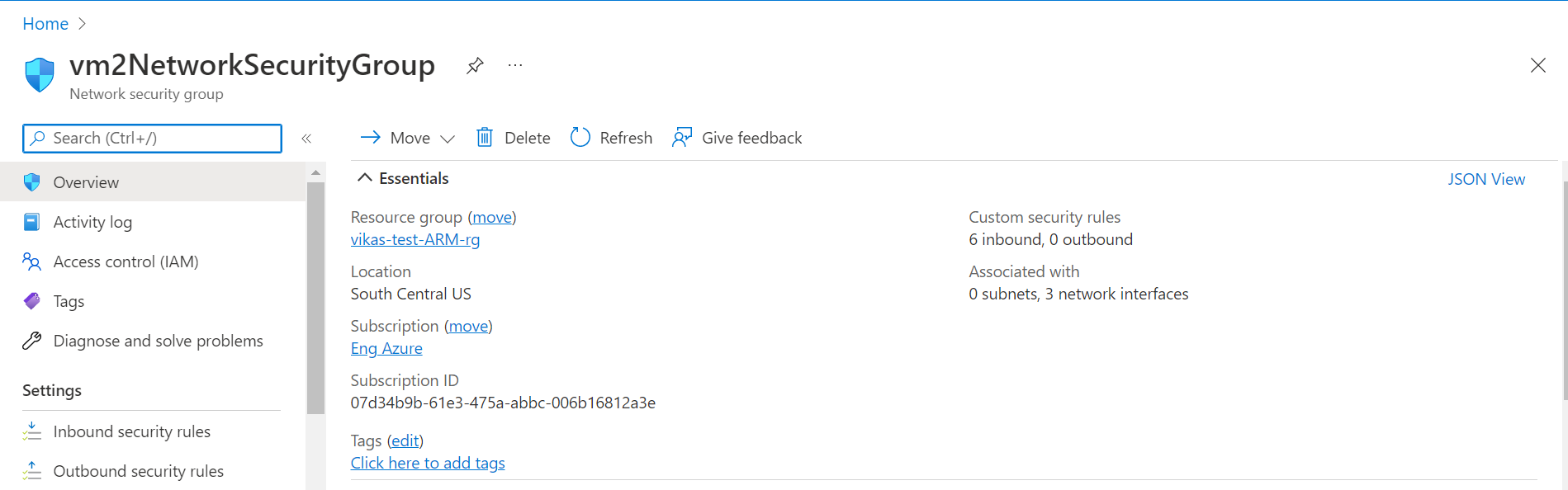
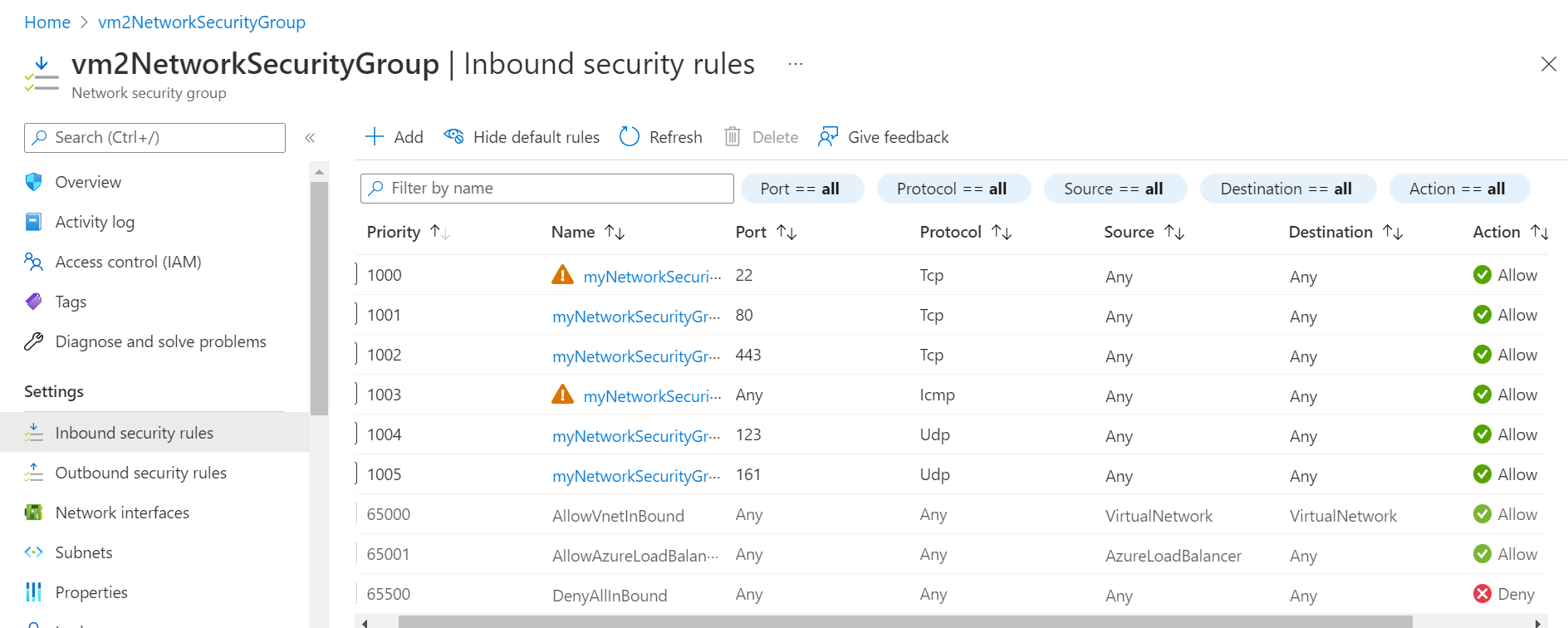
## Public Ips

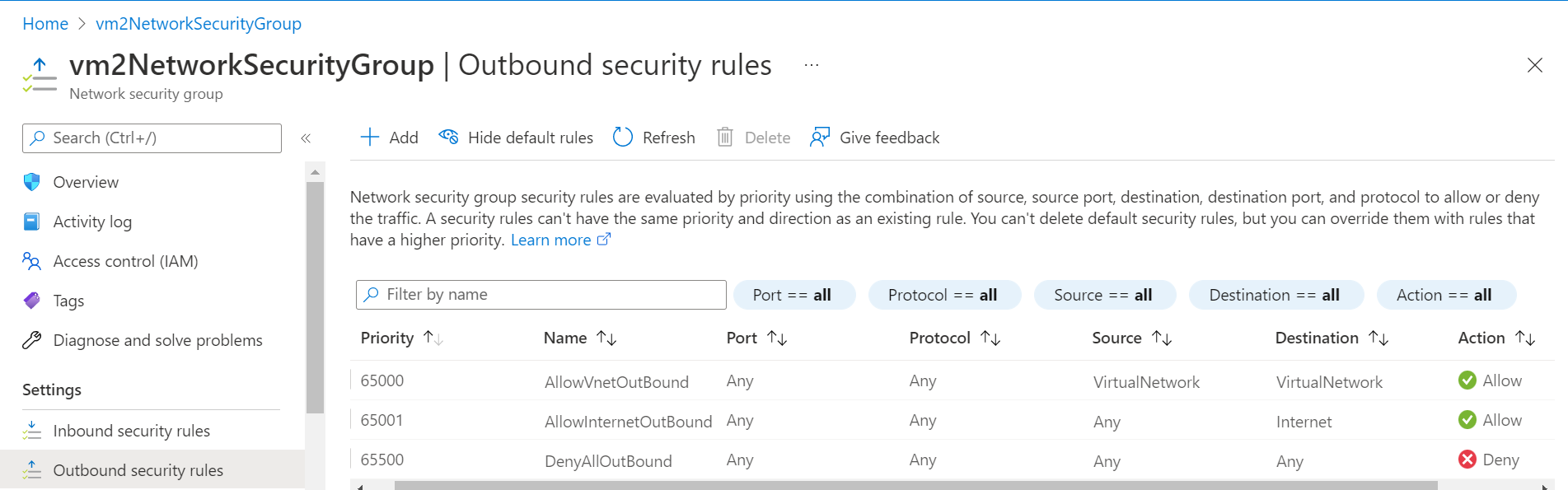
* + 1. Expected Outcome: Either 2 public ips or 6 public ips should get created according to user input.
    2. Actual Outcome:
       1. Two public IP’s should created for vm1mgmtnic and for vm2mgmtnic

2 public IP’s is created and attached to mgmt interfaces.

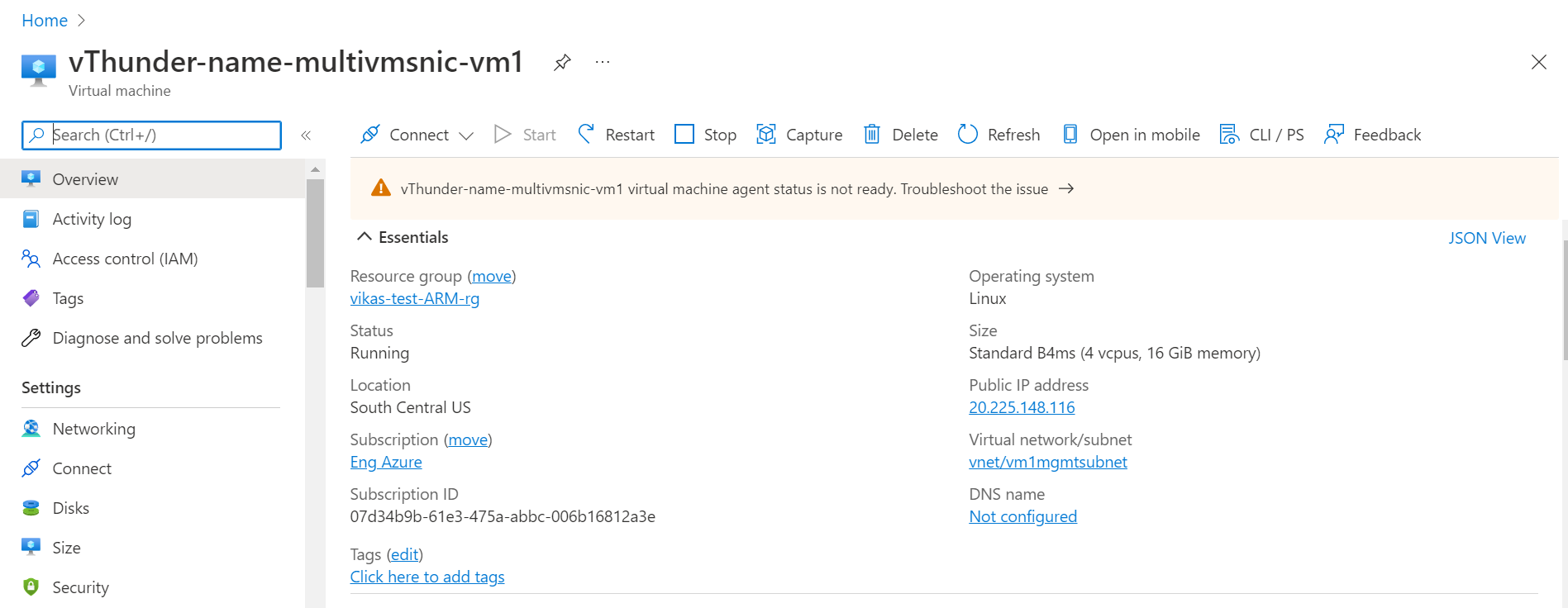
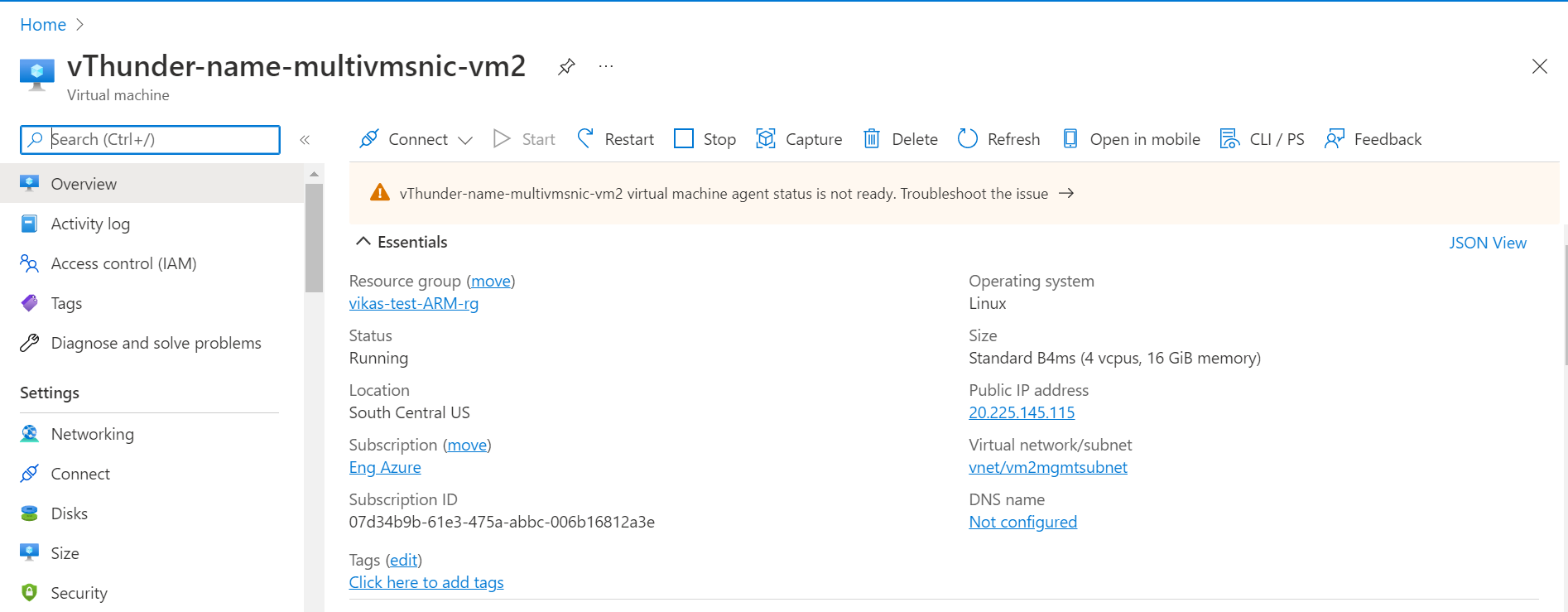
* + - * 1. 
        2. 

## NSGs

* + 1. Expected Outcome: 2 NSG should get created (1 for vm 1 and another for vm2 )
    2. Actual Outcome: 2 NSG is created and attached to VMs.
       1. 
       2. 
       3. 
       4. 
       5. 

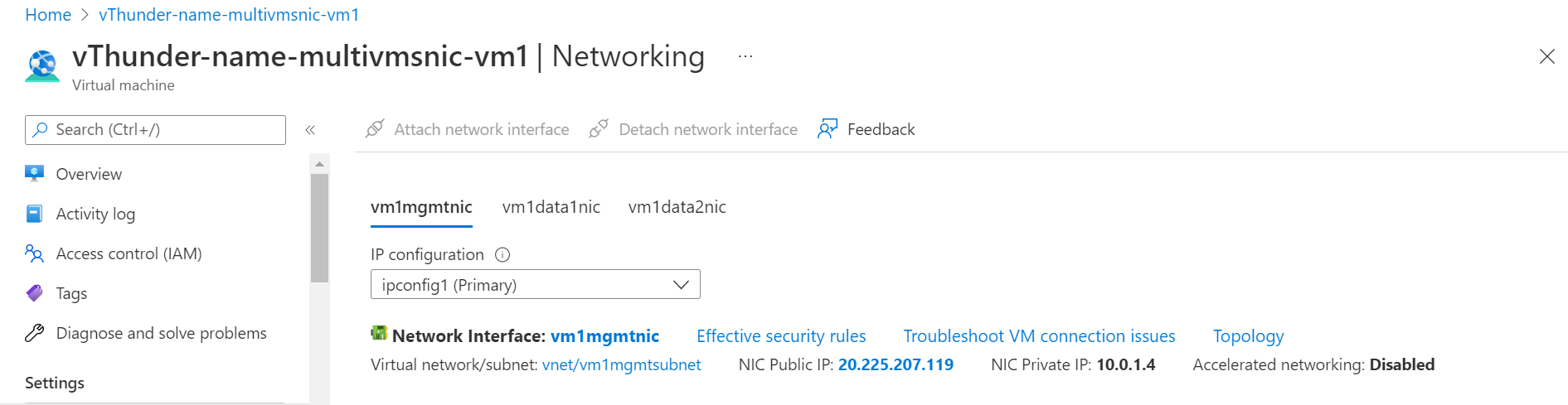
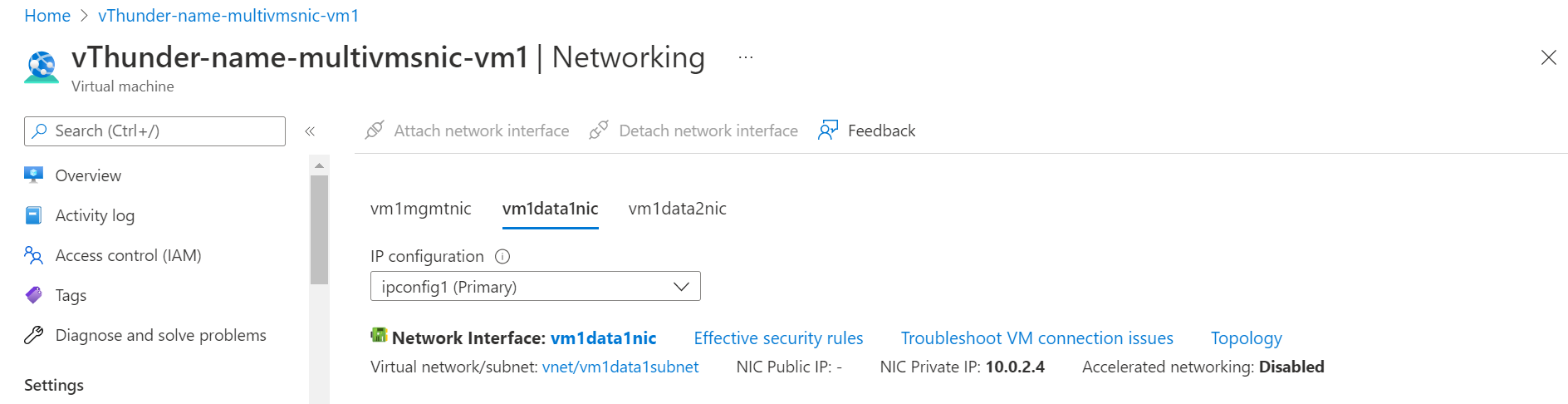
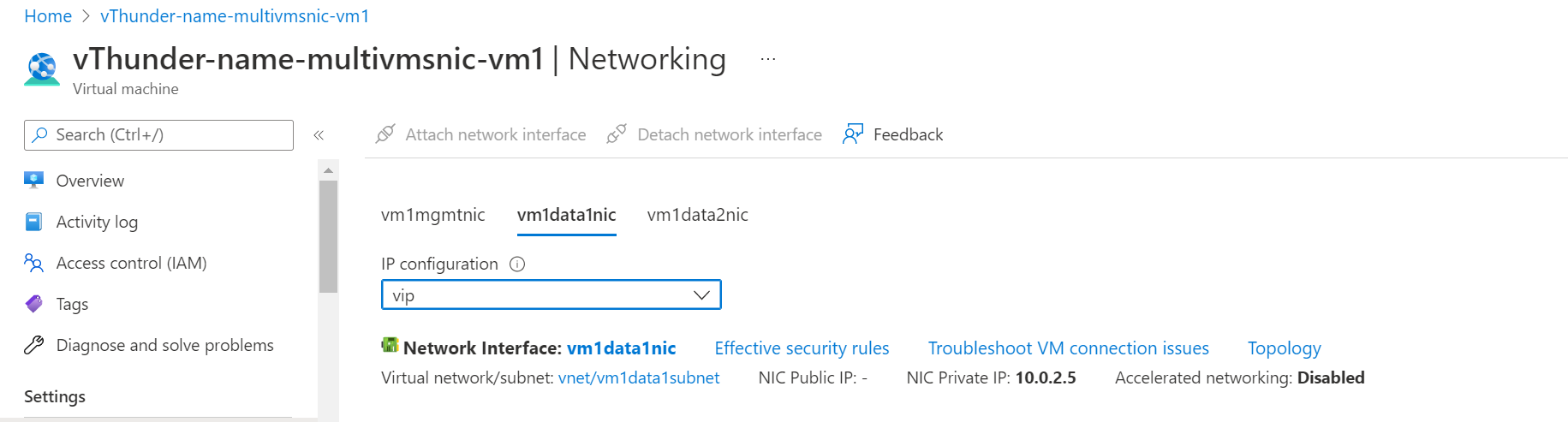
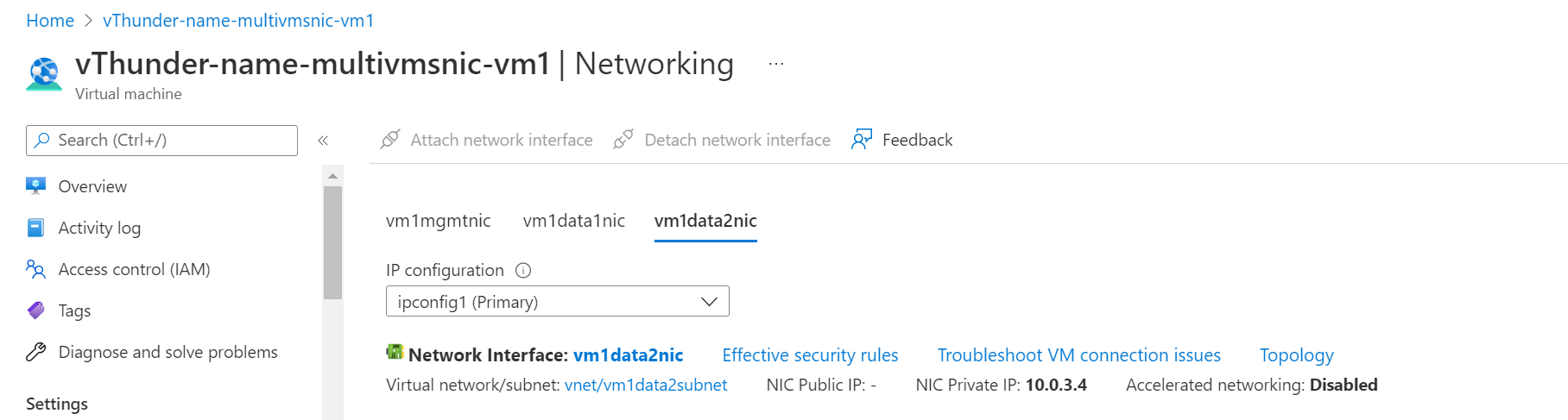
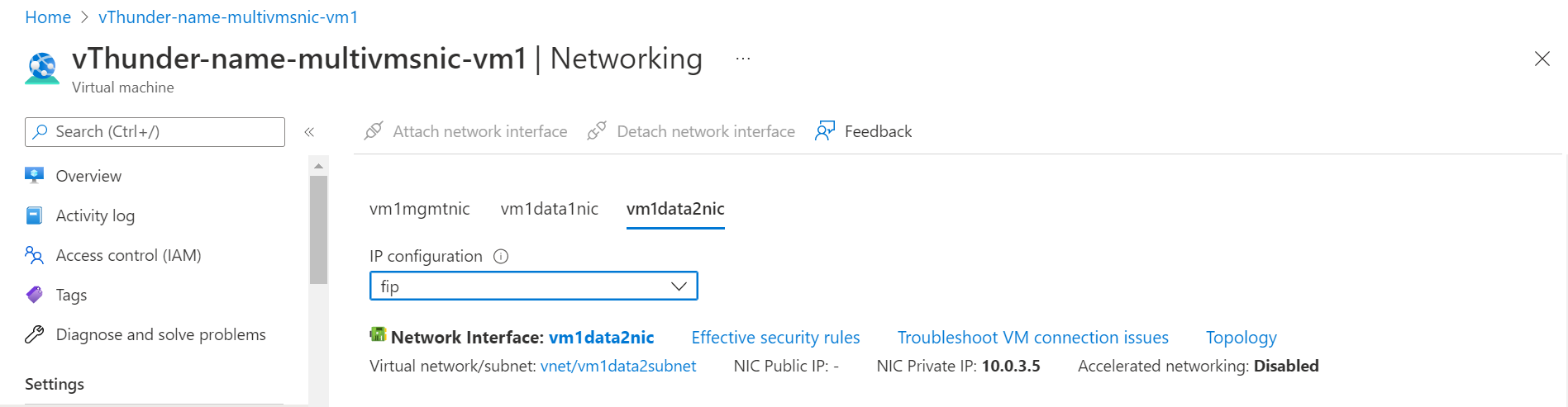


## vThunder Instances

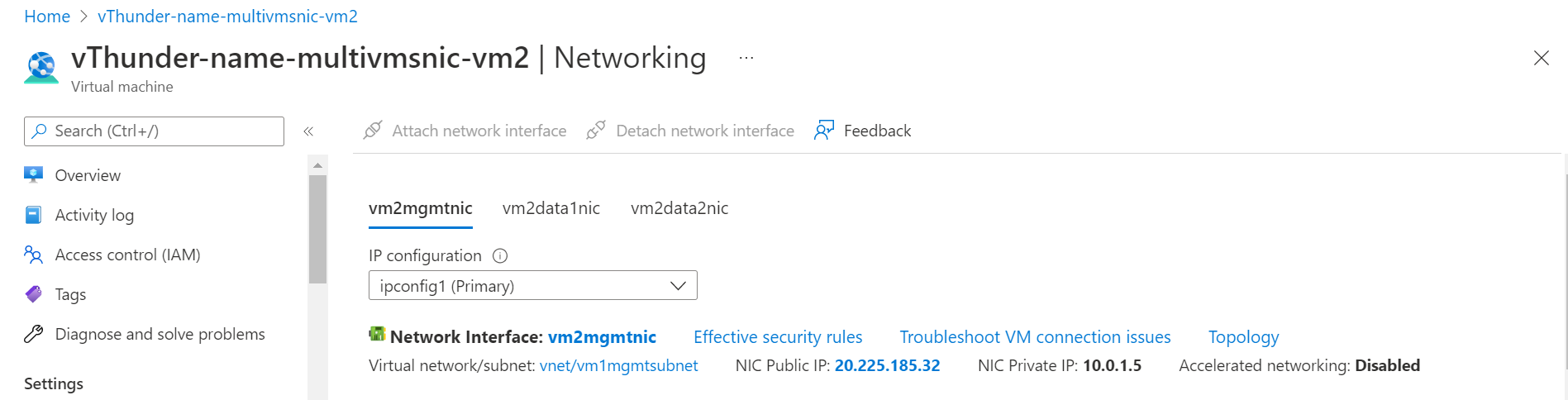
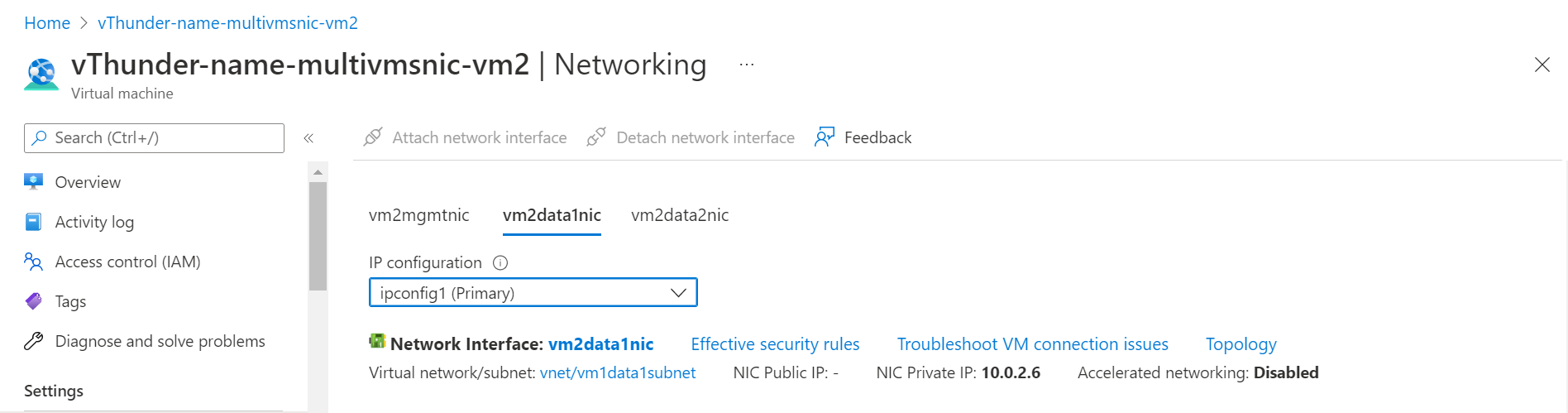
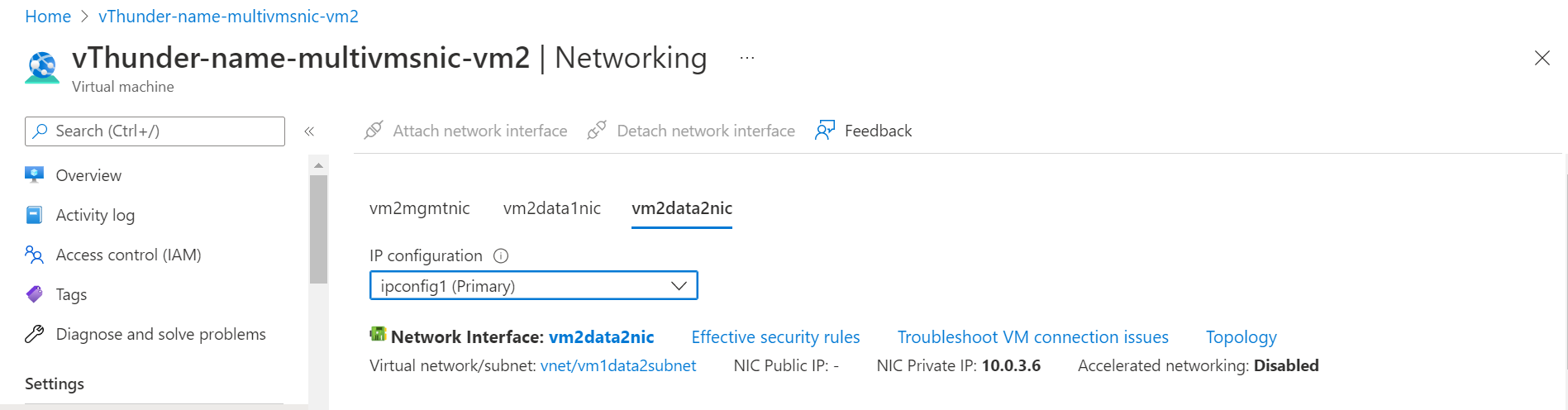
* + 1. Expected Outcome: 2 vThunder instances should get created having same configuration.
    2. Actual Outcome: 2 vThunder instances are created having same configuration.
       1. 
       2. 

# vThunder Networking Configuration on Azure

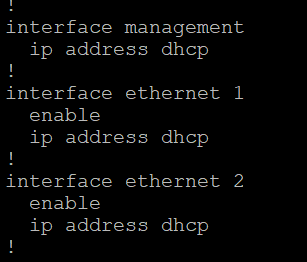
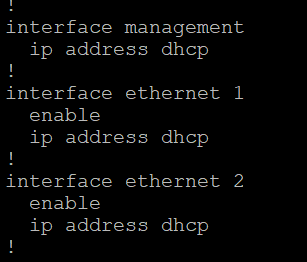
## vThunder-1

1. Management Interface
   * + 1. Expected Outcome: Management interface will have only primary ip, no secondary ip.
       2. Actual Outcome: Management interface has only primary ip.
          1. 
2. Data Interface (Client Side)
   * + 1. Expected Outcome: Client side data interface will have 1 primary ip and 1 private secondary ip (named vip).
       2. Actual Outcome: Client side data interface has 1 primary ip and 1 private secondary ip (named vip)
          1. 
          2. 
3. Data Interface (Server Side)
   * + 1. Expected Outcome: Server side interface will have 1 primary ip and 1 private secondary ip (named fip)
       2. Actual Outcome: Server side interface has 1 primary ip and 1 private secondary ip (named fip)
          1. 
          2. 

## vThunder-2

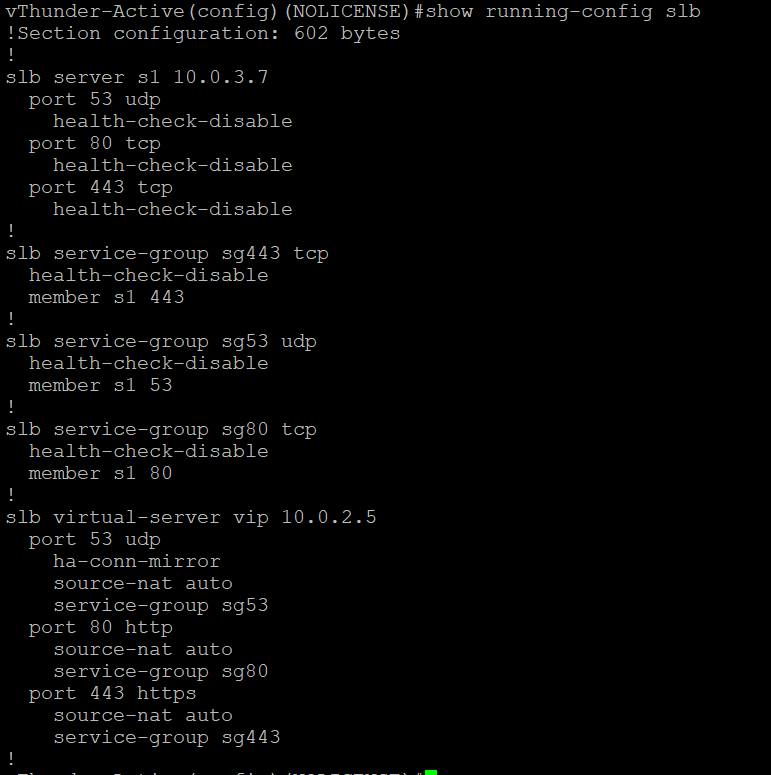
1. Management Interface
   * + 1. Expected Outcome: Management interface will have only primary ip address.
       2. Actual Outcome: Management interface has only primary ip address.
          1. 
2. Data Interface (Client Side)
   * + 1. Expected Outcome: Client side interface will have only primary ip, no secondary ip.
       2. Actual Outcome: Client side interface has only primary ip, no secondary ip.
          1. 
3. Data Interface (Server Side)
   * + 1. Expected Outcome: Server side interface will have only primary ip, no secondary ip.
       2. Actual Outcome: Server side interface has only primary ip, no secondary ip.
          1. 

# vThunder IP Configuration

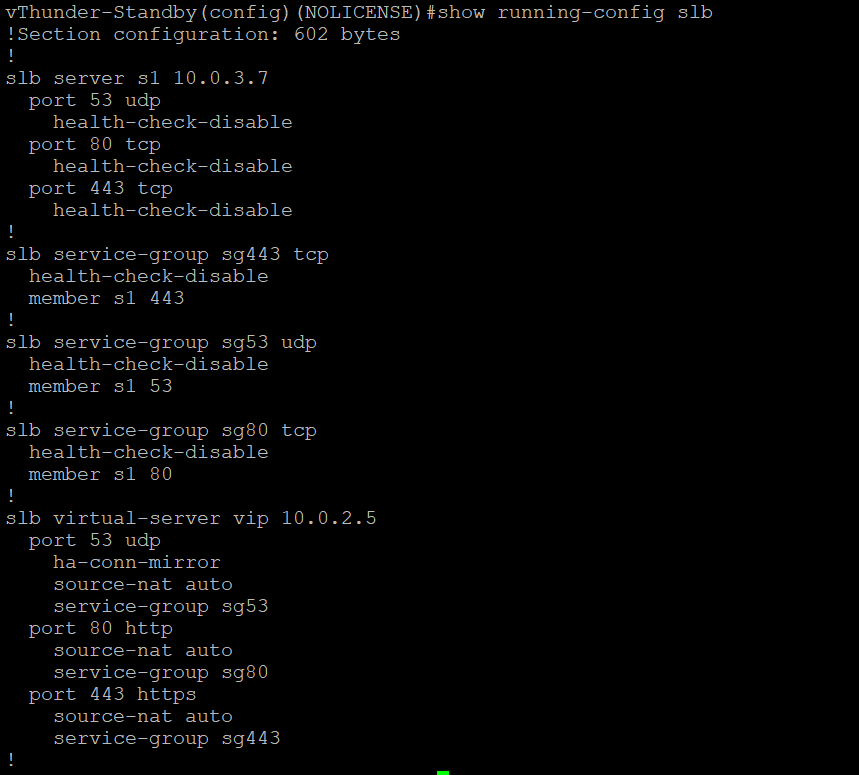
1. vThunder-1
   * 1. 
2. vThunder-2
   * 1. 

# vThunder SLB Configuration

## vThunder-1

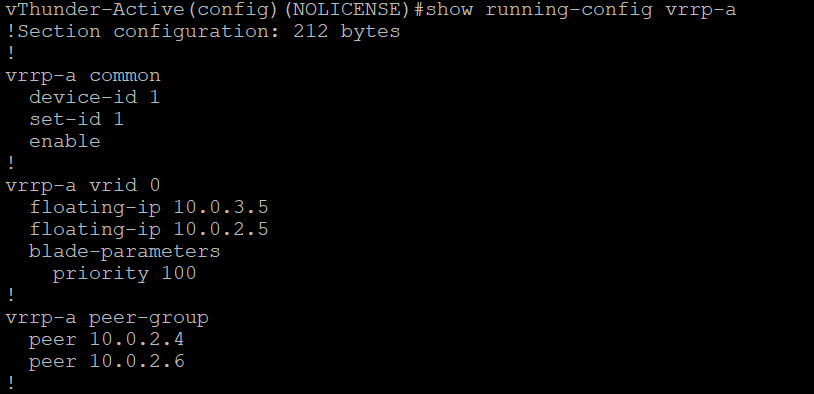
* + 1. 

## vThunder-2

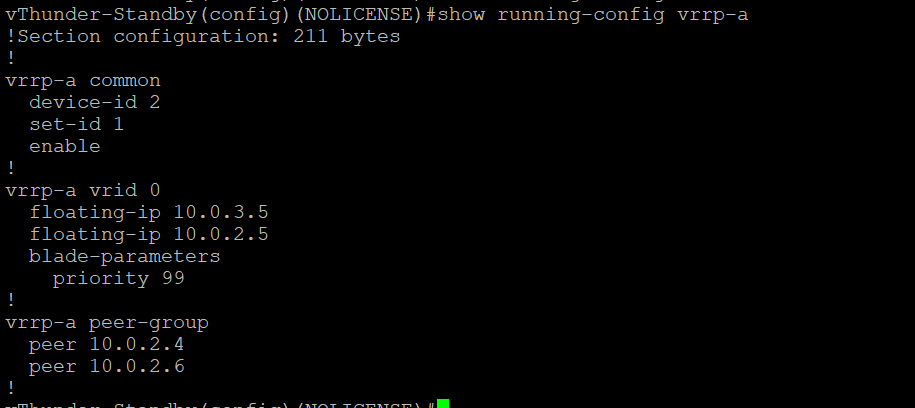
* + 1. 

# vThunder HA Configuration

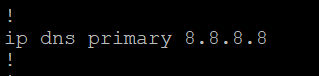
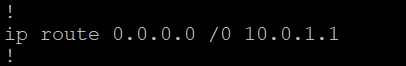
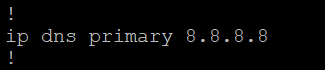
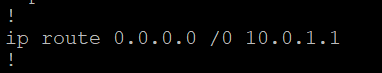
## vThunder-1

* + 1. 

## vThunder-2

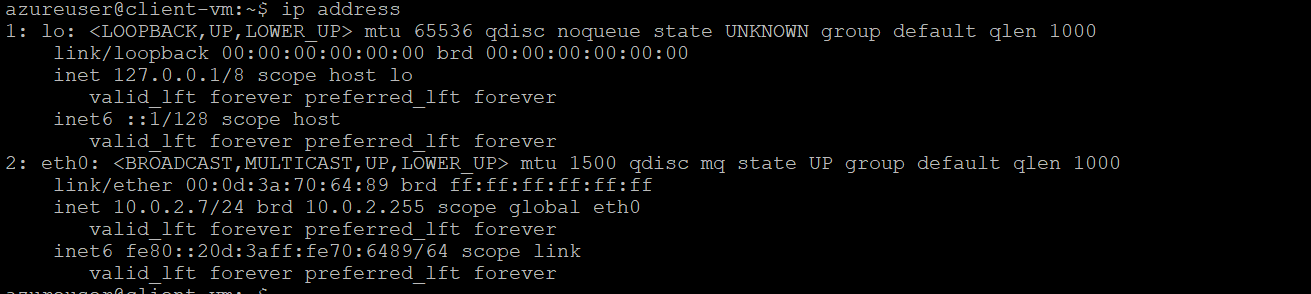
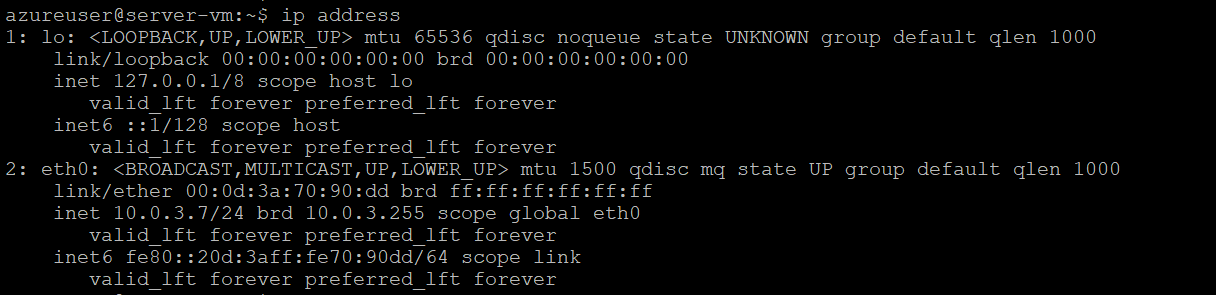
* + 1. 

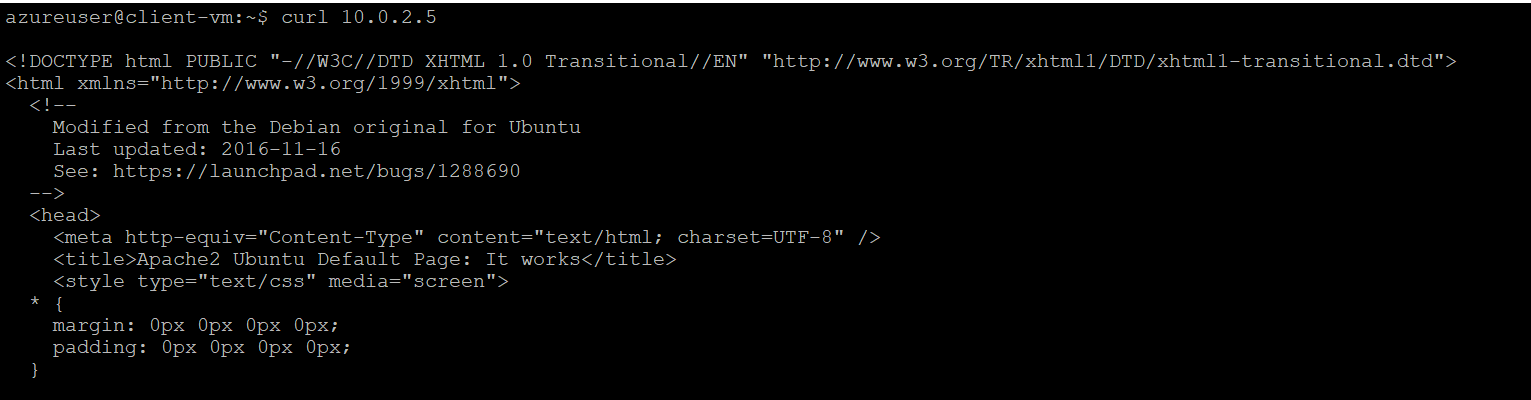
# vThunder DNS and IP Route Configuration

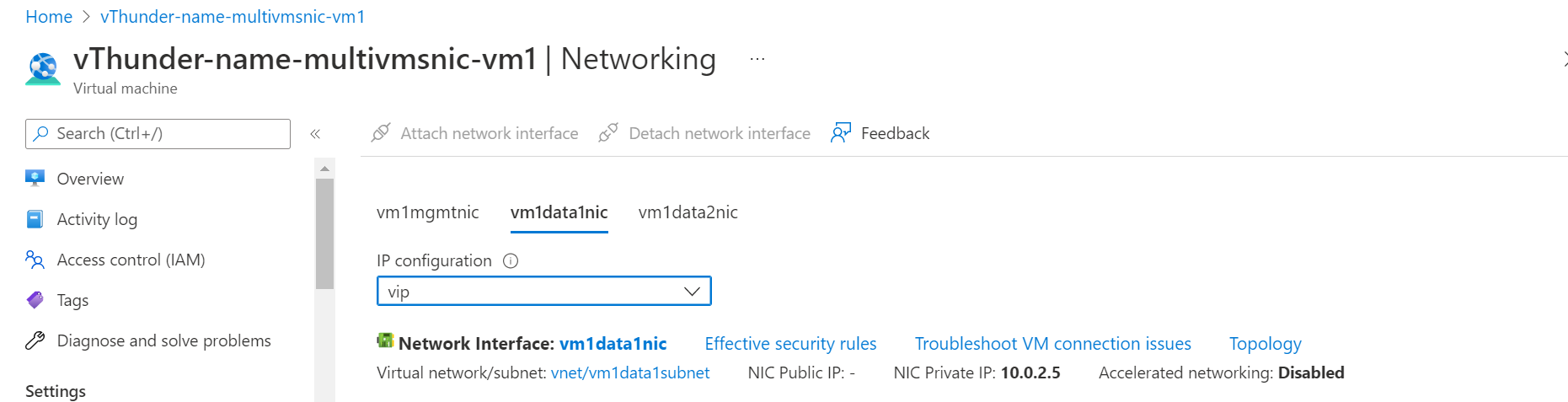
1. vThunder-1
   * 1. 
     2. 
2. vThunder-2
   * 1. 
     2. 

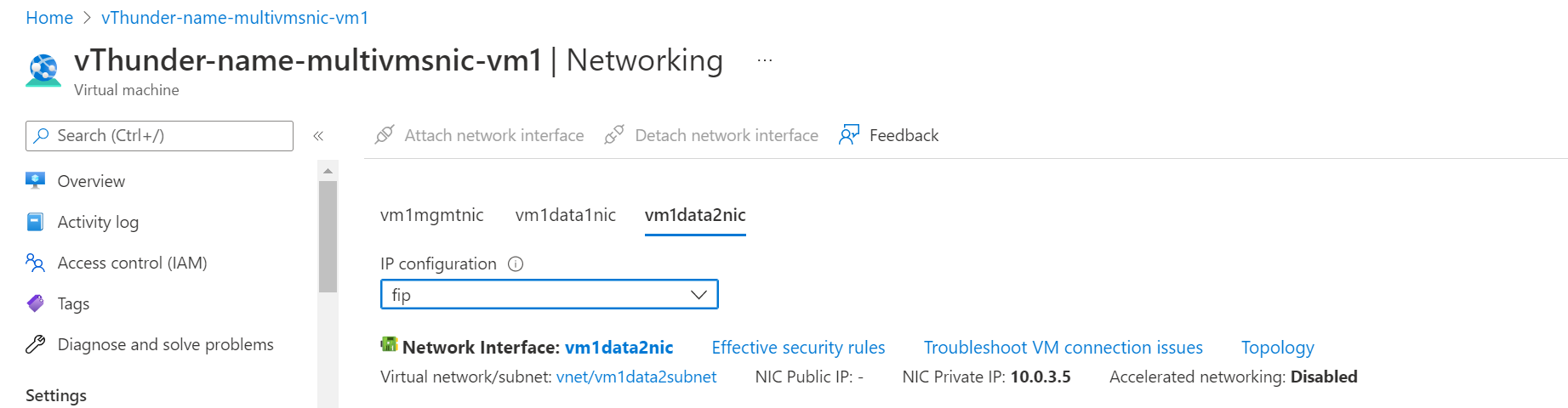
SLB and HA Test Cases

## Without failover (vThunder-1 is in active and vThunder-2 is in standby mode)

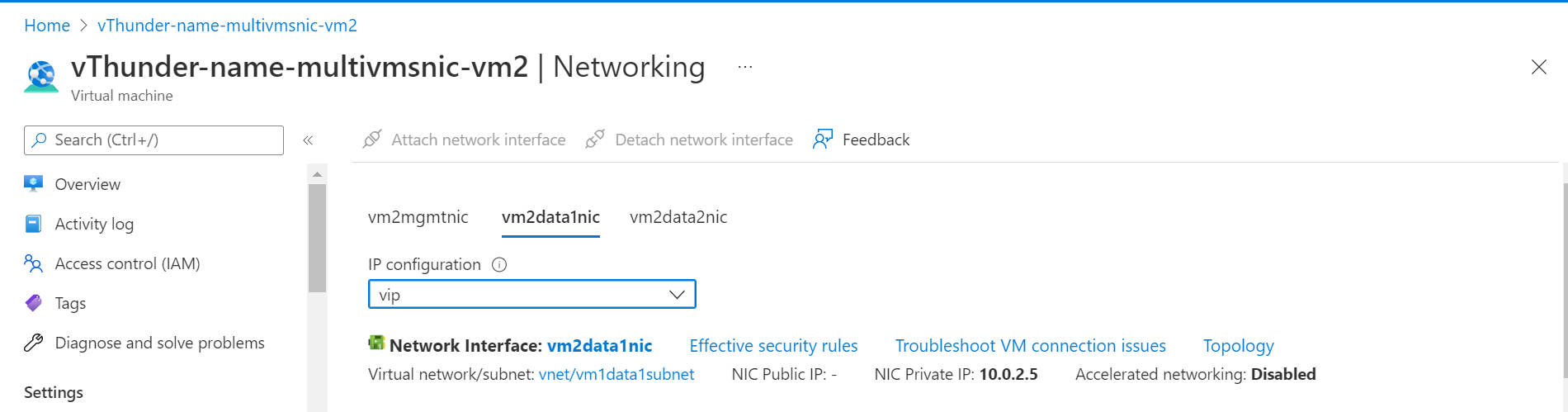
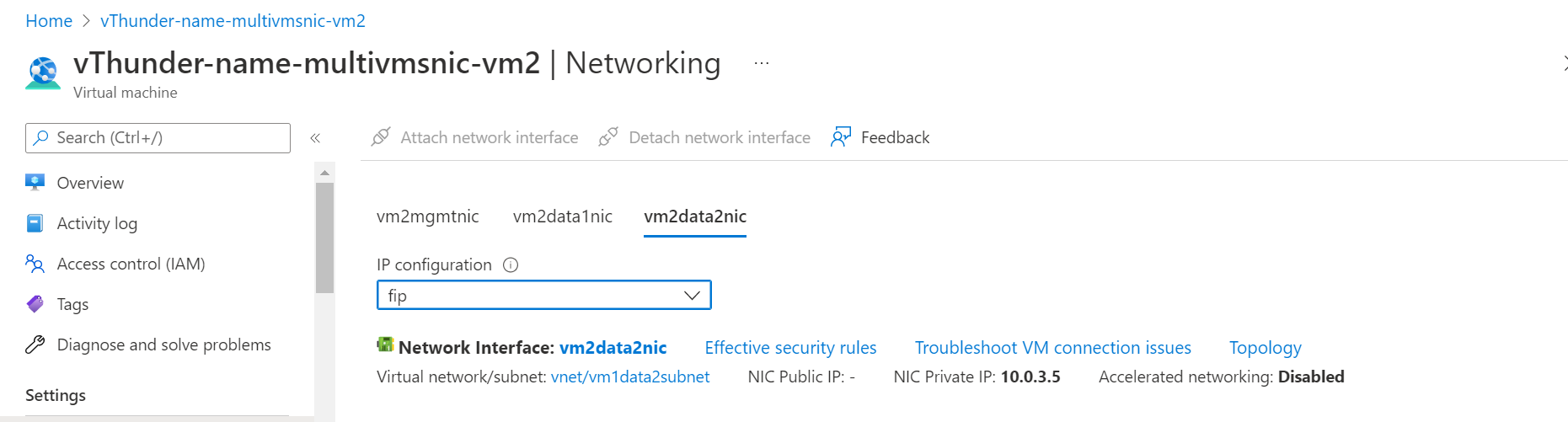
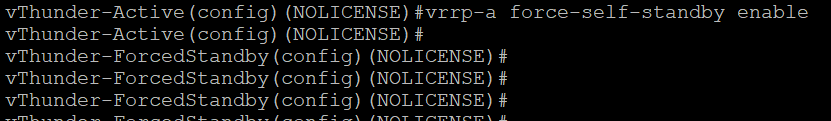
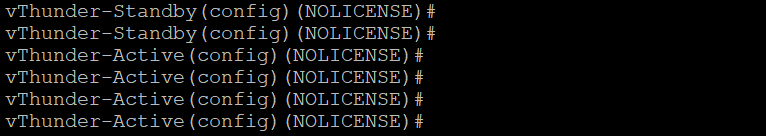
* + 1. Expected Outcome: Active vThunder (master) will act as SLB and second vthunder will be on standby mode.
    2. Actual Outcome: Activate vThunder (master) is acting as SLB and second vthunder is on standby mode.
       1. Client VM
       2. Server VM 
       3. Curl command fro client vm to vip
          1. Expected Outcome: Apache server running on server vm should be accessible from client vm using vip. Vip should be present as a secondary ip in client side interface of vThunder-1 and fip should be present as a secondary ip in server side interface of vThunder-2.
          2. Actual Outcome: Apache server running on server vm is accessible from client vm using vip. VIP is present in client side interface and fip is present in server side interface.



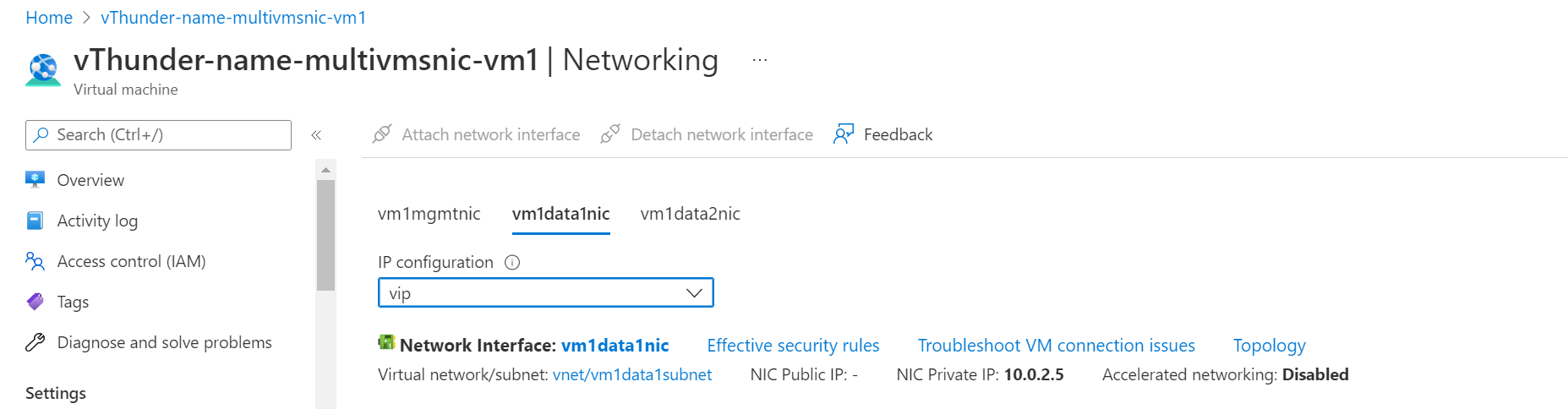
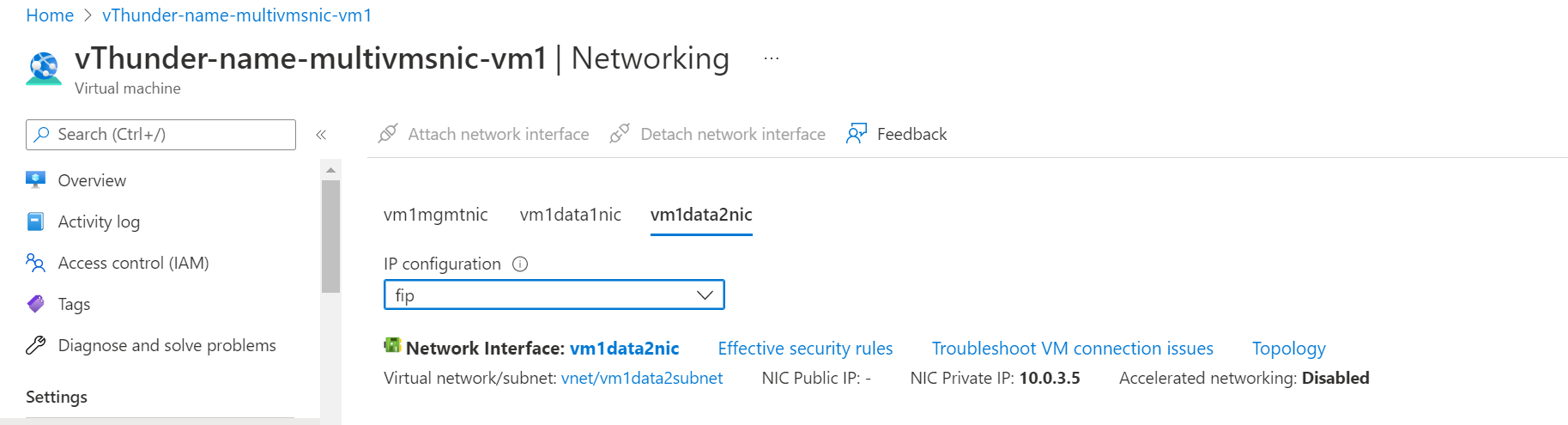
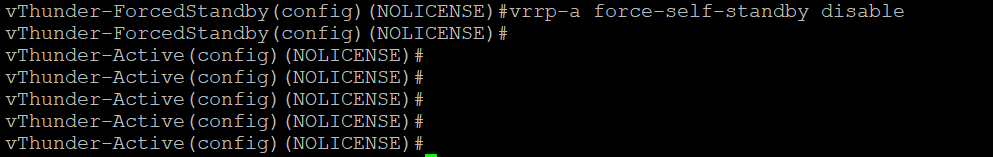
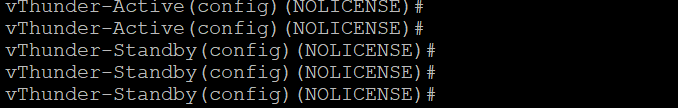
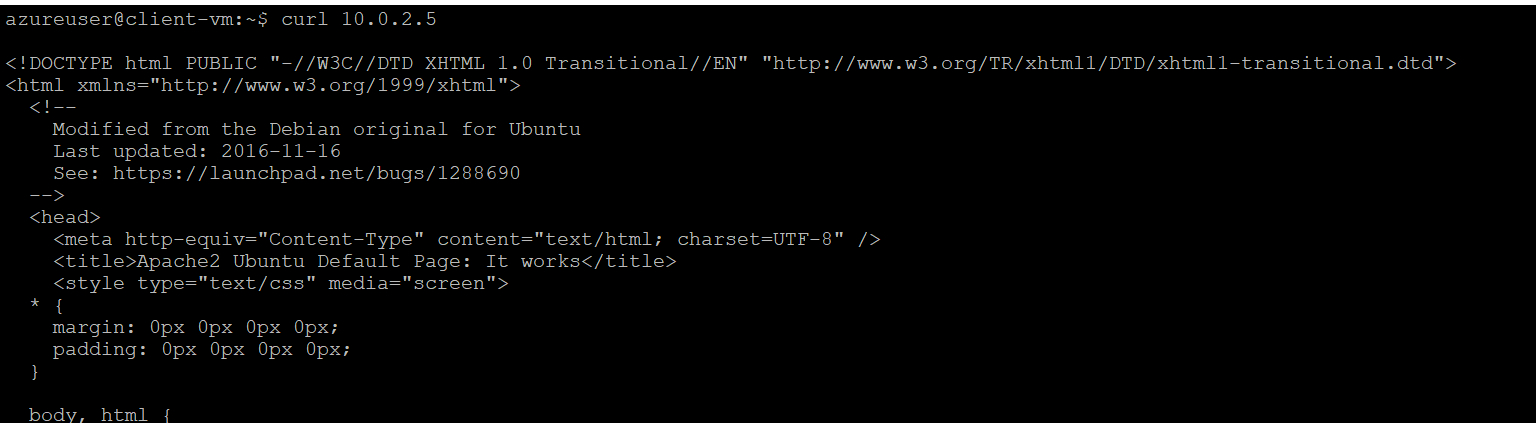




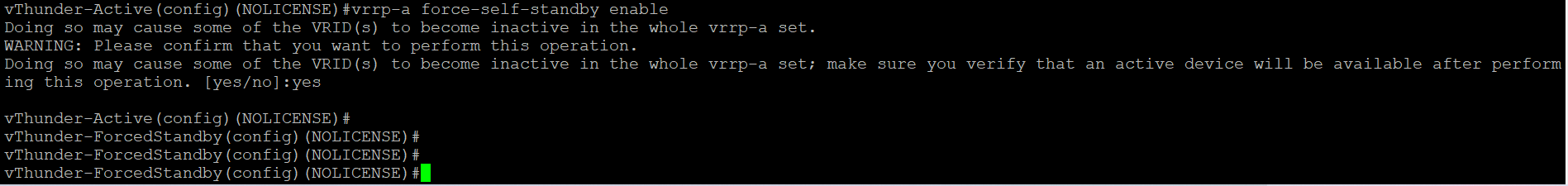
## vThunder-1 goes on standby mode

* + 1. Expected Outcome: vThunder-2 will become active and vip and fip attached to vThunder-1 will be attached to vthunder-2. Client vm should be able to access Apache server running on server vm using vip.
    2. Actual Outcome: vThunder-2 is active. vip and fip attached to vThunder-1 are attached to vthunder-2. Client vm is able to curl Apache server using vip.
       1. VIP in vThunder-2 client interface 
       2. FIP in vThunder-2 server interface 
       3. Curl command from client vm to server vm 
       4. vThunder-1 state 
       5. vThunder-2 state 

## vThunder-1 again become active

* + 1. Expected Outcome: VIP and FIP from vthunder-2 will be detached and attached to vthunder-1. Client vm should be able to curl Apache server running on server vm using VIP.
    2. Actual Outcome: VIP and FIP from vthunder-2 is detached and attached to vthunder-1. Client vm is able to curl Apache server running on server vm using VIP.
       1. VIP in vThunder-1 client side interface 
       2. FIP in vThunder-1 server side interface 
       3. vThunder-1 state 
       4. vThunder-2 state 
       5. Curl command from client vm 

## vThunder-1 and vThunder-2 both are on standby mode

* + 1. Expected Outcome: VIP and FIP will remain where it was. Client vm will not able to reach Apache server running on server vm.
    2. Actual Outcome: VIP and FIP is remained where it was. Client vm is not able to reach Apache server running on server vm.
       1. vThunder-1 state 
       2. vThunder-2 state 