

Azure Lab 06

CONFIGURE A NETWORK SECURITY GROUP
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3. On the Basics tab, fill in the following information (leave the defaults for everything else):

This screenshot shows the 'Project details' tab of the 'Create a virtual machine' wizard in the Microsoft Azure portal. The page includes a search bar with 'mydockerwebapproha' and a user profile 'rohachaudry@hotmail.c...'. Below the title, there are three help buttons: 'Help me create a low cost VM', 'Help me create a VM optimized for high availability', and 'Help me choose the right VM size for my workload'. The 'Project details' section instructs the user to select a subscription and resource group. The 'Subscription' is set to 'Azure for Students' and the 'Resource group' is '(New) SimpleWinVM_group'. The 'Instance details' section includes fields for 'Virtual machine name' (SimpleWinVM), 'Region' ((US) East US), and 'Availability options' (Availability zone). Under 'Zone options', 'Self-selected zone' is selected, with a note that up to 3 availability zones can be chosen, one VM per zone. A warning states that using an Azure-selected zone is not supported in the 'East US' region. Navigation buttons at the bottom include '< Previous', 'Next : Disks >', and 'Review + create'. A 'Give feedback' link is also present.

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Create a virtual machine

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

Project details
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription *

Resource group * [Create new](#)

Instance details

Virtual machine name *

Region *

Availability options

Zone options ☒ Self-selected zone
Choose up to 3 availability zones, one VM per zone

☐ Azure-selected zone (Preview)
Let Azure assign the best zone for your needs

Using an Azure-selected zone is not supported in region 'East US'.

< Previous | Next : Disks > | Review + create | Give feedback

This screenshot shows the 'Security and image configuration' tab of the 'Create a virtual machine' wizard. It includes the same header and help buttons as the previous tab. The 'Security type' is set to 'Trusted launch virtual machines', with a note that this is required when using 1P Gallery images. The 'Image' is 'Windows Server 2019 Datacenter - x64 Gen2'. The 'VM architecture' is set to 'x64', with a note that 'Arm64 is not supported with the selected image.' The 'Run with Azure Spot discount' checkbox is unchecked. The 'Size' is 'Standard_D2s_v3 - 2 vcpus, 8 GiB memory (\$137.24/month)'. The 'Enable Hibernation' checkbox is unchecked, with a note that hibernation is not supported by the selected size. The 'Administrator account' field is empty. Navigation buttons at the bottom include '< Previous', 'Next : Disks >', and 'Review + create'. A 'Give feedback' link is also present.

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Create a virtual machine

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

Security type [Configure security features](#)

Trusted launch virtual machine is required when using 1P Gallery images.

Image * [See all images](#) | [Configure VM generation](#)

VM architecture ☐ Arm64 ☒ x64

Arm64 is not supported with the selected image.

Run with Azure Spot discount ☐

Size * [See all sizes](#)

Enable Hibernation ☐

Hibernate is not supported by the size that you have selected. Choose a size that is compatible with Hibernation to enable this feature. [Learn more](#)

Administrator account

< Previous | Next : Disks > | Review + create | Give feedback

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Home > Create a virtual machine ...

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

compatible with Hibernate to enable this feature. [Learn more](#)

Administrator account

Username * ✓

Password * ✓

Confirm password * ✓

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports * ☒ None ☐ Allow selected ports

Select inbound ports

Info: All traffic from the internet will be blocked by default. You will be able to change inbound port rules in the VM > Networking page.

< Previous | Next : Disks > | Review + create

[Give feedback](#)

5. Switch to the Management tab, and in its Monitoring section, select the following setting:

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Home > Virtual machines > Create a virtual machine ...

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

Basics | Disks | Networking | Management | **Monitoring** | Advanced | Tags | Review + create

Configure monitoring options for your VM.

Alerts

Enable recommended alert rules ☐

Diagnostics

Boot diagnostics ☐ Enable with managed storage account (recommended) ☐ Enable with custom storage account ☒ Disable

Enable OS guest diagnostics ☐

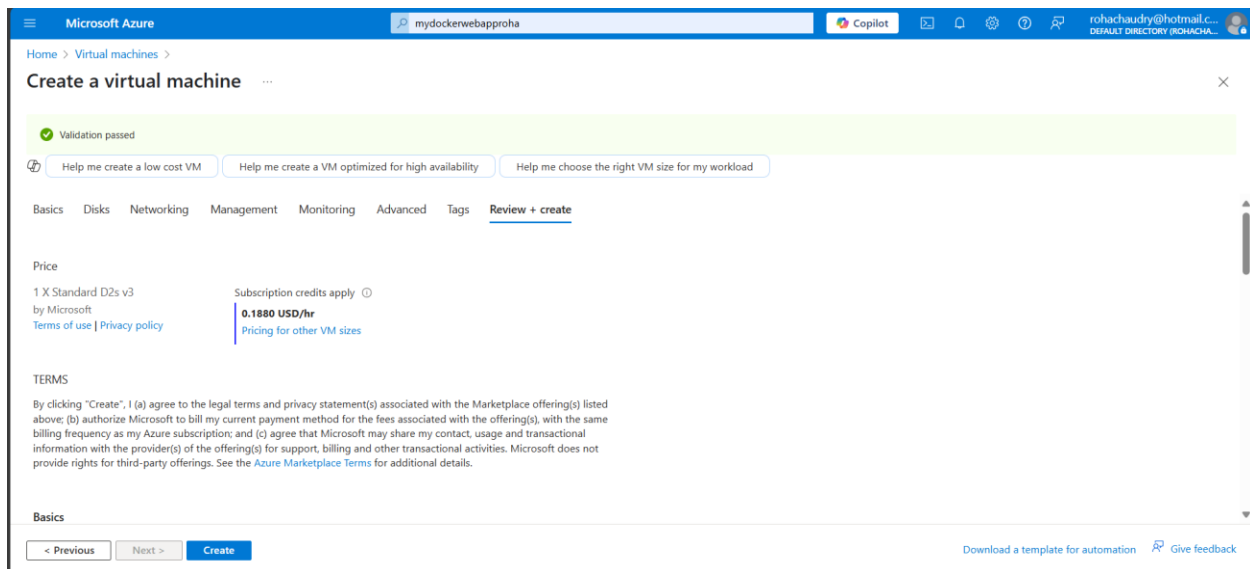
Health

Enable application health monitoring ☐

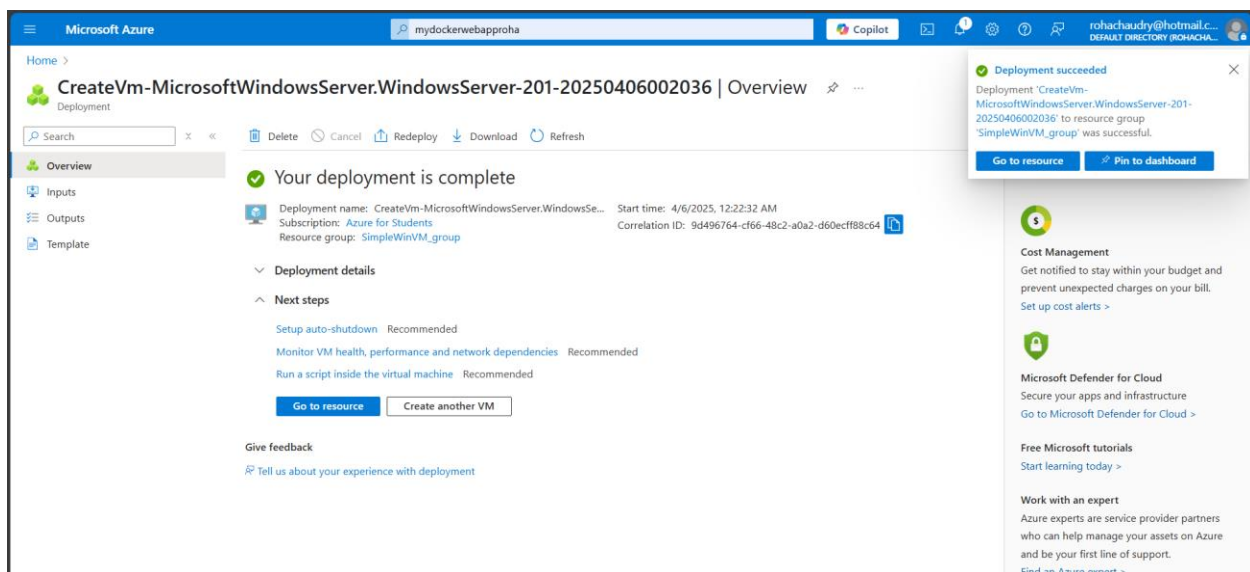
< Previous | Next : Advanced > | Review + create

[Give feedback](#)

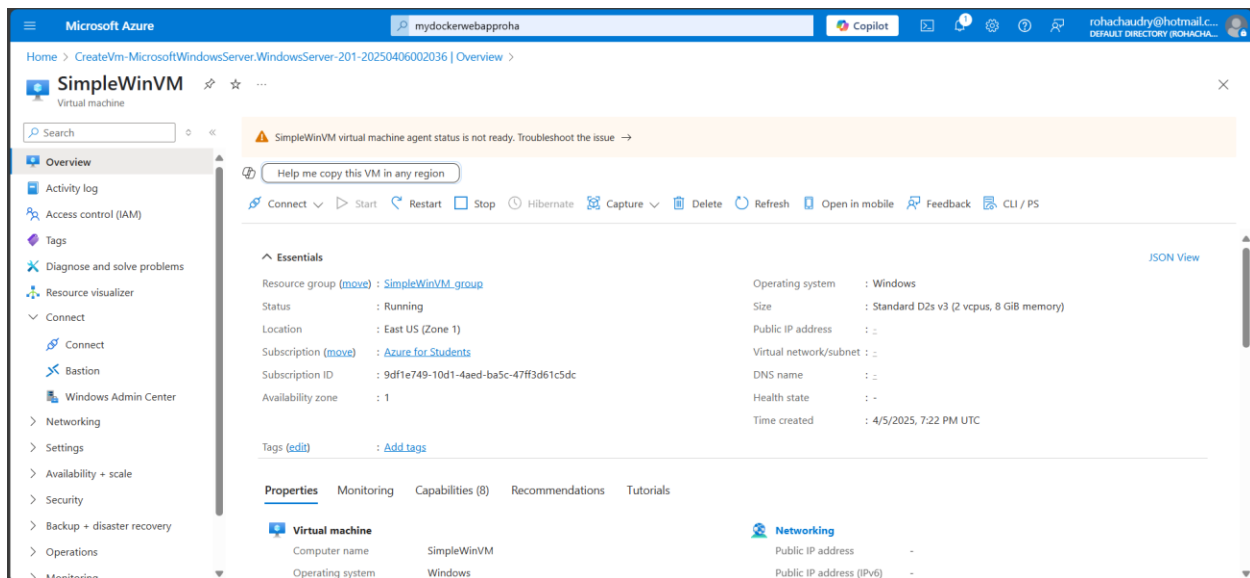
6. Leave the remaining defaults and then click the Review + create button at the bottom of the page.



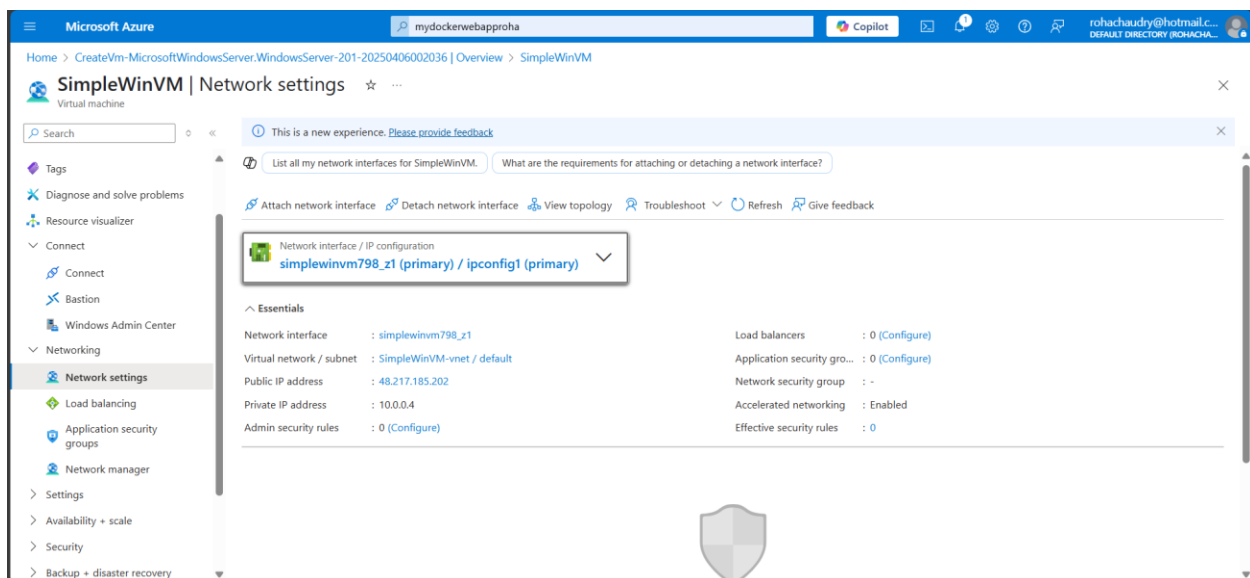
7. Once Validation is passed click the Create button. It can take about five minutes to deploy the virtual machine.



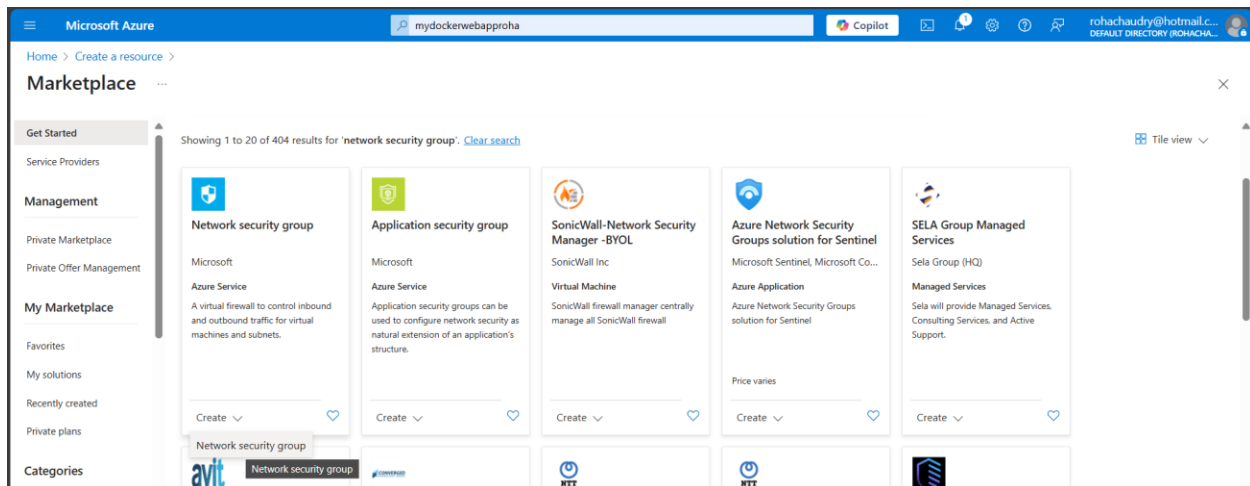
9. From the deployment blade or from the Notification area, click Go to resource.



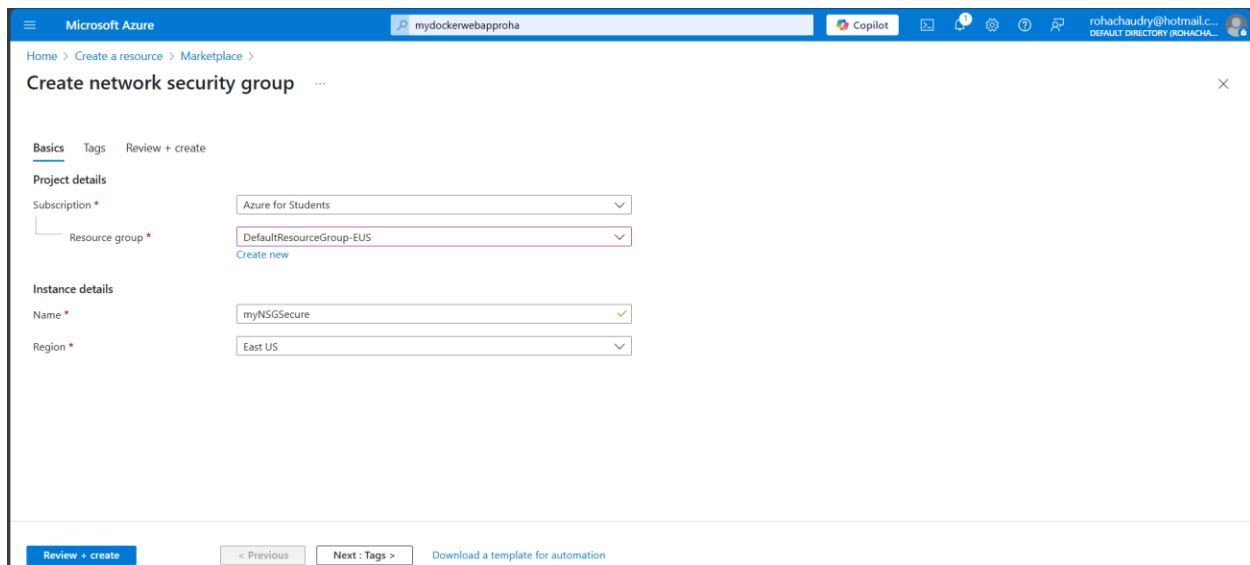
10. On the SimpleWinVM virtual machine blade, click Networking, review the Inbound port rules tab, and note that there is no network security group associated with the network interface of the virtual machine or the subnet to which the network interface is attached.



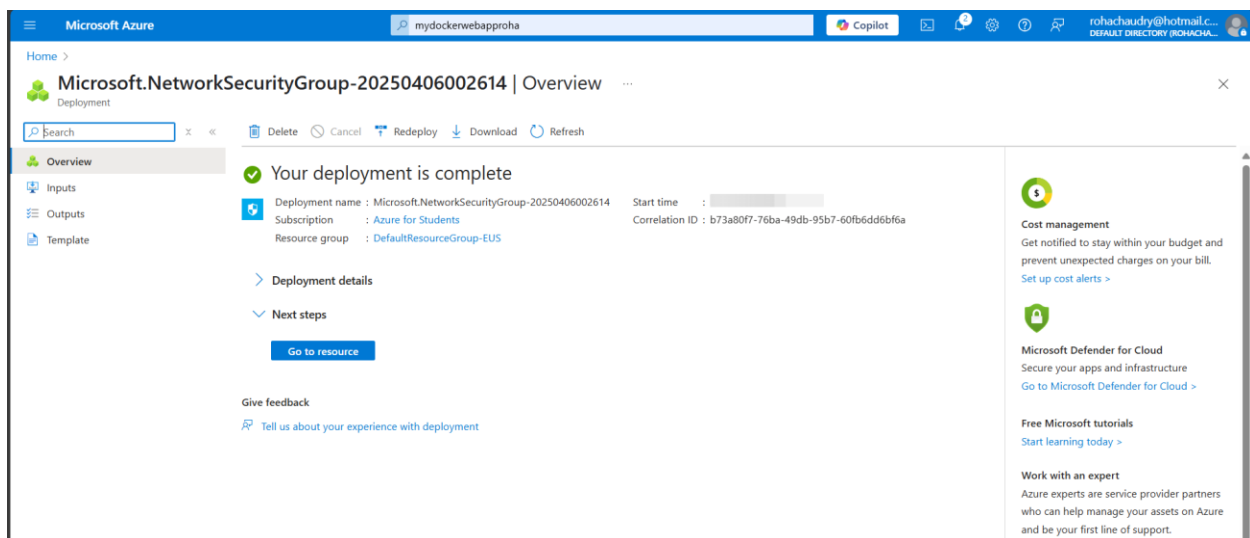
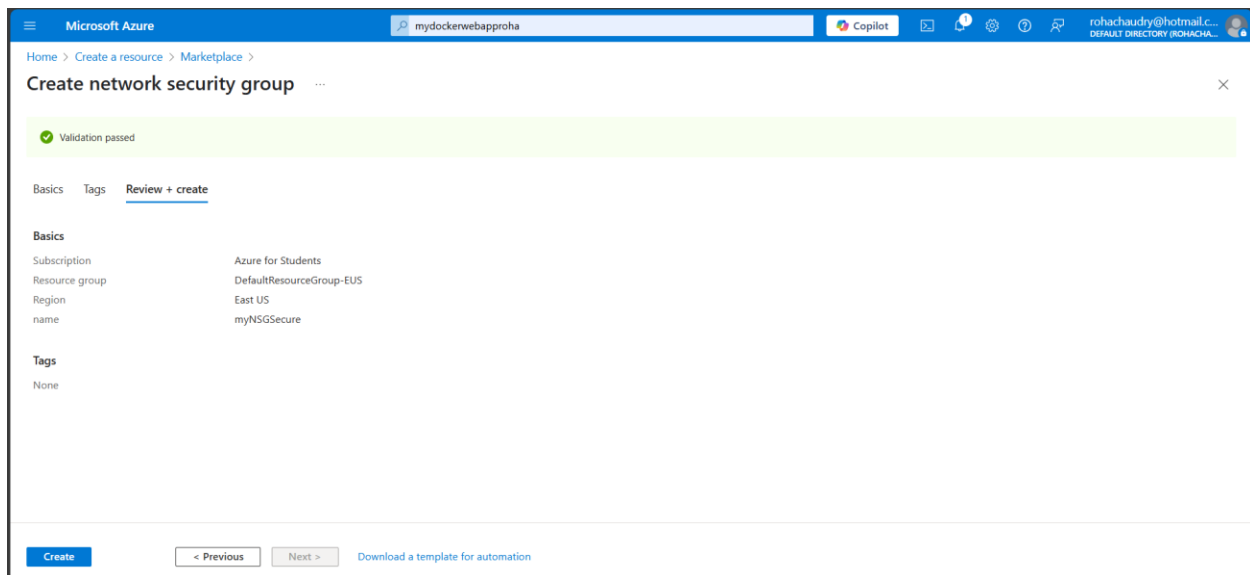
1. From the All services blade, search for and select Network security groups and then click + Add, + Create, + New



2. On the Basics tab of the Create network security group blade, specify the following settings.



3. Click Review + create and then after the validation click Create.



4. After the NSG is created, click Go to resource.

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Home > Microsoft.NetworkSecurityGroup-20250406002614 | Overview >

myNSGSecure

Network security group

Search

Move Delete Refresh Give feedback

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Settings

Monitoring

Automation

Help

Essentials

Resource group (move): [DefaultResourceGroup-EUS](#)

Location: East US

Subscription (move): [Azure for Students](#)

Subscription ID: 9df1e749-10d1-4aed-ba5c-47ff3d61c5dc

Tags (edit): [Add tags](#)

Custom security rules: 0 inbound, 0 outbound

Associated with: 0 subnets, 0 network interfaces

JSON View

Filter by name

Port == all Protocol == all Source == all Destination == all Action == all

Priority	Name	Port	Protocol	Source	Destination	Action
Inbound Security Rules						
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	Allow
65500	DenyAllInBound	Any	Any	Any	Any	Deny
Outbound Security Rules						
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowInternetOutBound	Any	Any	Any	Internet	Allow
65500	DenyAllOutBound	Any	Any	Any	Any	Deny

5. Under Settings click Network interfaces and then **** Associate****.

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Home > Microsoft.NetworkSecurityGroup-20250406002614 | Overview > myNSGSecure

myNSGSecure | Network interfaces

Network security group

Search

Associate Refresh Dissociate

Search network interfaces

Name	Public IP address	Private
No results.		

Associate network interface

myNSGSecure

Network interface associations *

simplewinvm798_z1

OK

6. Select the network interface you identified in the previous task.

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Home > Microsoft.NetworkSecurityGroup-20250406002614 | Overview > myNSGSecure

myNSGSecure | Network interfaces

Network security group

Search

Associate Refresh Dissociate

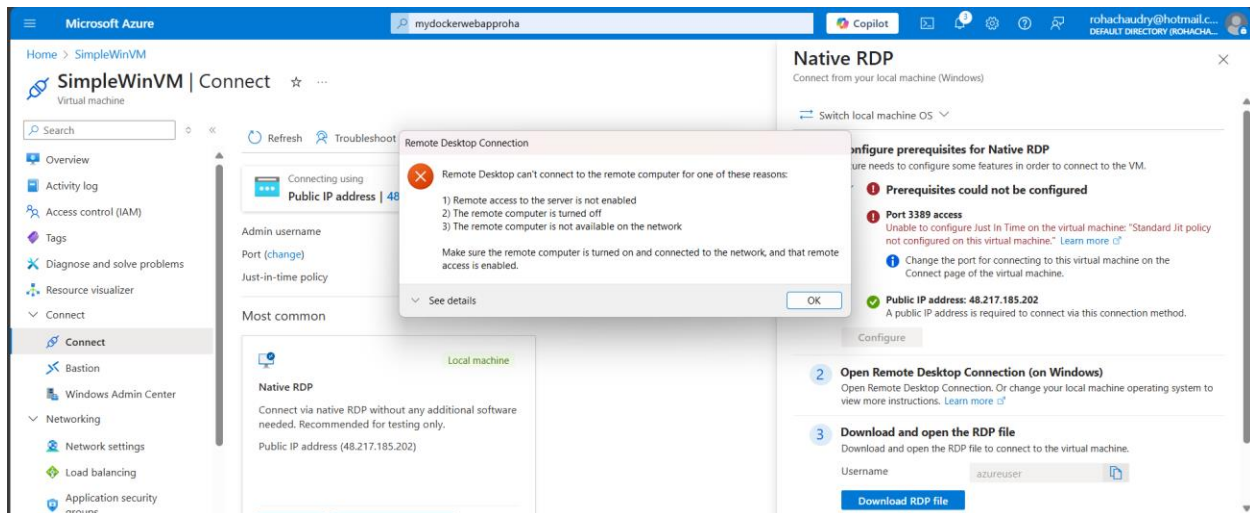
Search network interfaces

Name	Public IP address	Private IP address	Virtual machine
simplewinvm798_z1	48.217.185.202	10.0.0.4	SimpleWinVM

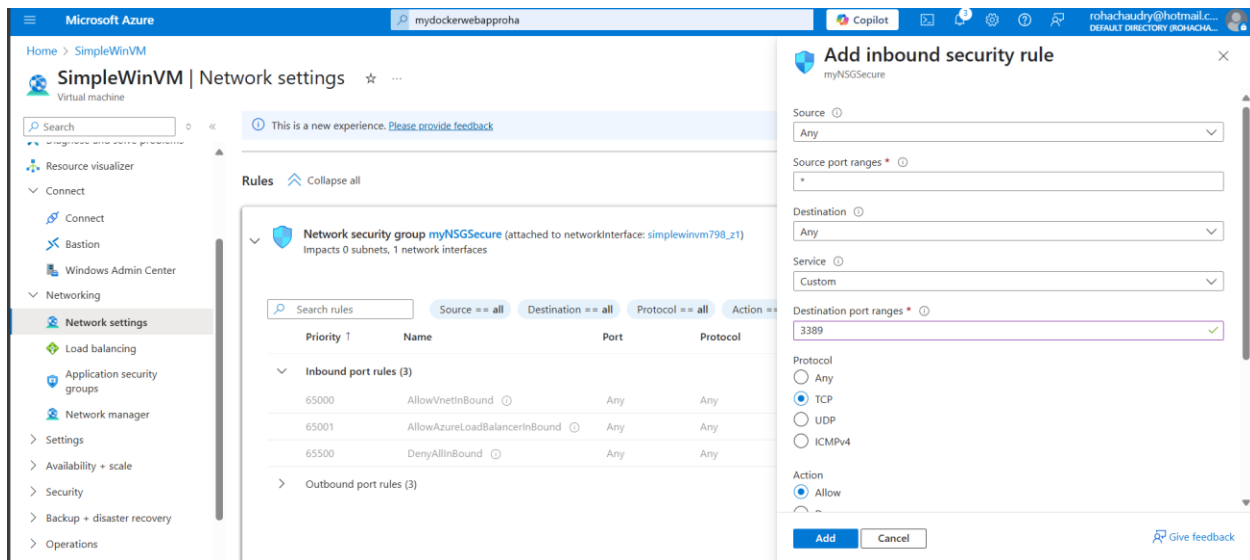
Saved network interface

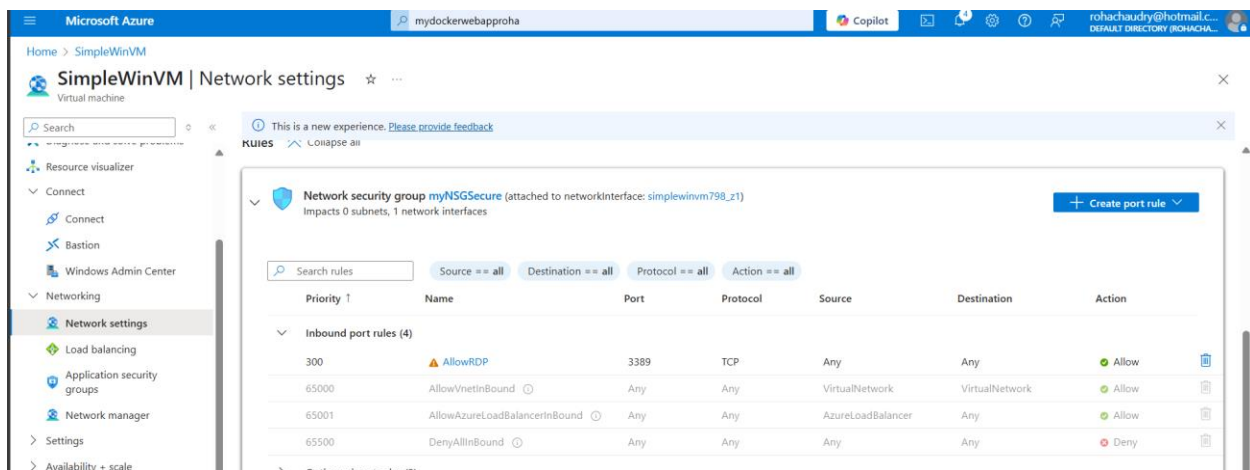
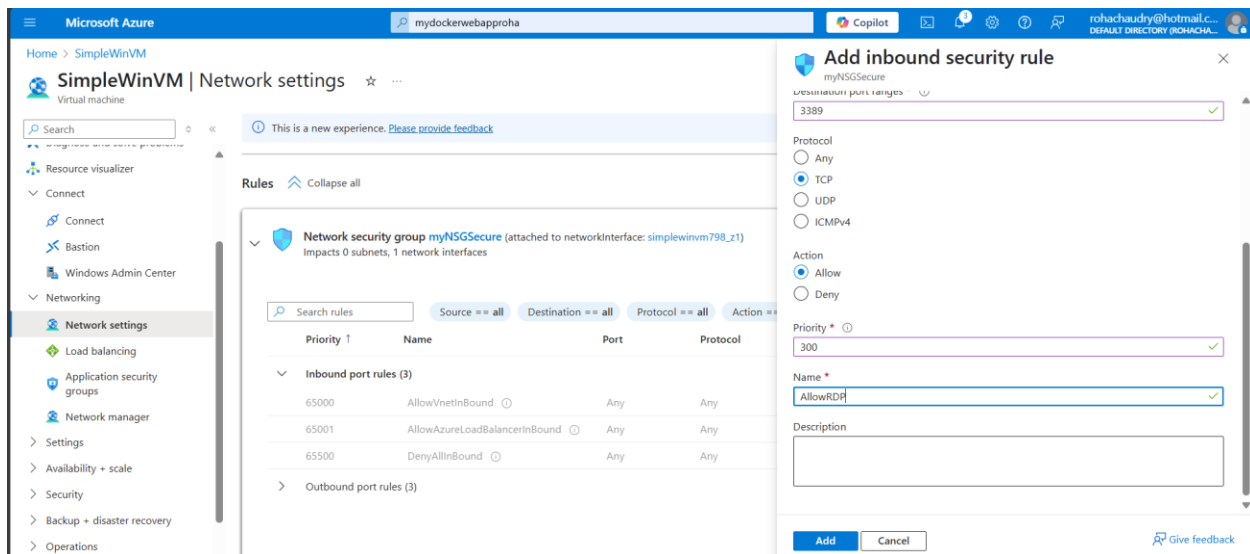
Successfully saved network security group for network interface 'simplewinvm798_z1'.

3. Attempt to connect to the virtual machine by selecting RDP and downloading an running the RDP file. By default the network security group does not allow RDP. Close the error window.



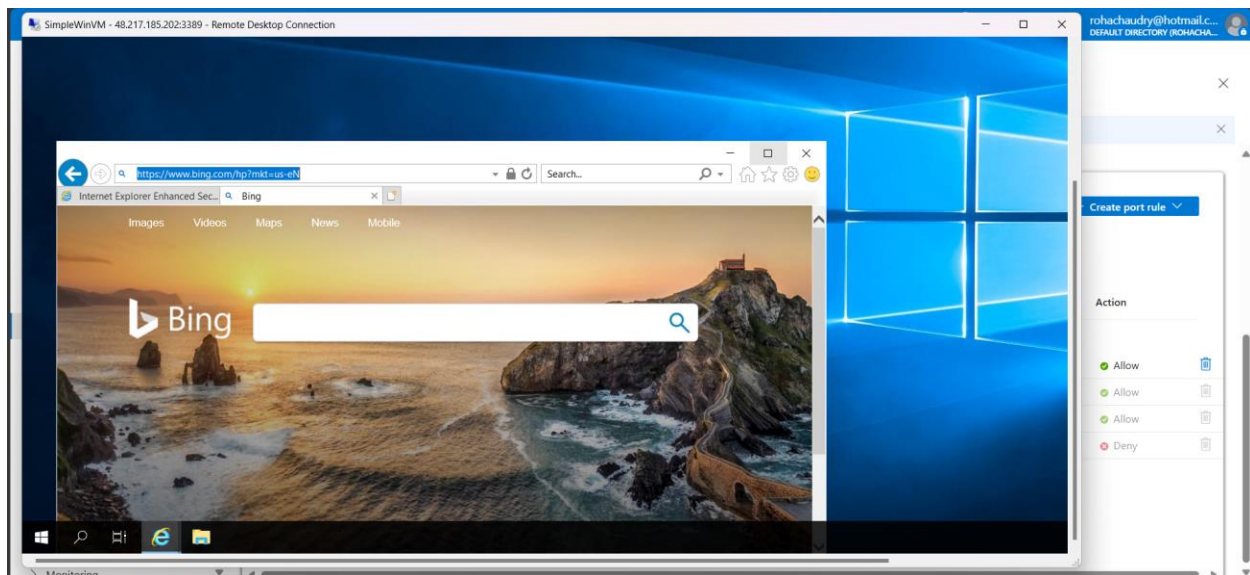
5. On the Inbound port rules tab, click Add inbound port rule . Click Add when you are done.





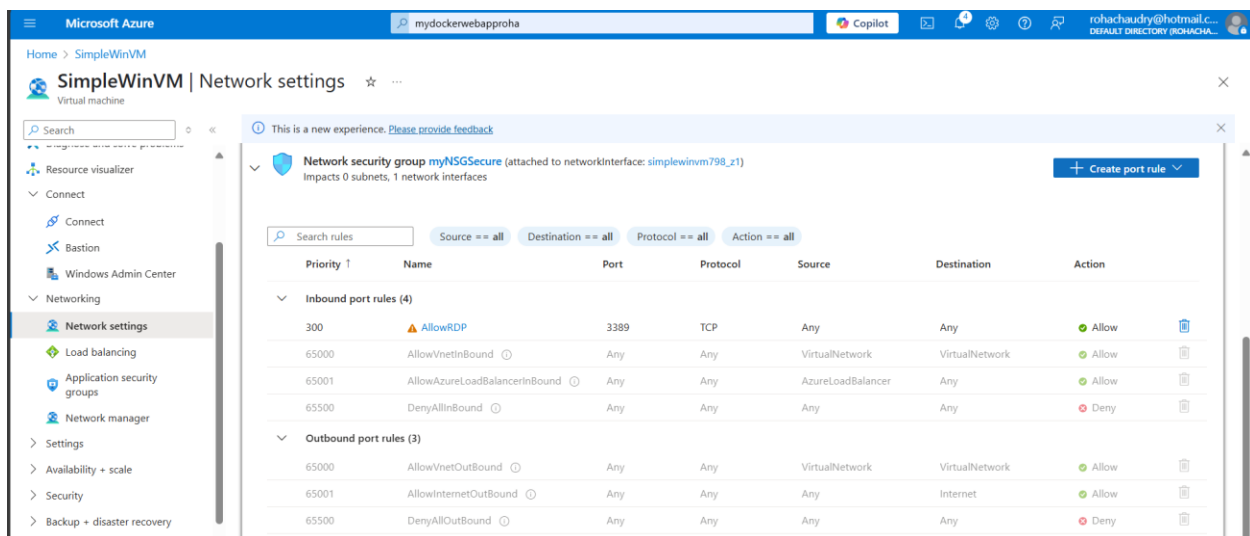
2. After the machine starts, open an Internet Explorer browser.

3. Verify that you can access <https://www.bing.com> and then close Internet Explorer. You will need to work through the IE enhanced security pop-ups.



4. Back in the Azure portal, navigate back to the blade of the SimpleWinVM virtual machine.

5. Under Settings, click Networking, and then Outbound port rules.



7. Click Add outbound port rule to the right of the myNSGSecure (attached to network interface: myVMNic) network security group and configure a new outbound security rule with a higher priority that will deny internet traffic. Click Add when you are finished.

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SimpleWinVM | Network settings

Network security group myNSGSecure (attached to networkInterface: simplewinvm798_z1)

Priority	Name	Port	Protocol
Inbound port rules (4)			
300	AllowRDP	3389	TCP
65000	AllowVnetInBound	Any	Any
65001	AllowAzureLoadBalancerInBound	Any	Any
65500	DenyAllInBound	Any	Any
Outbound port rules (3)			
65000	AllowVnetOutBound	Any	Any
65001	AllowInternetOutBound	Any	Any
65500	DenyAllOutBound	Any	Any

Add outbound security rule

Source: Any

Source port ranges: *

Destination: Service Tag

Destination service tag: Internet

Service: Custom

Destination port ranges: *

Protocol: TCP

Add Cancel Give feedback

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SimpleWinVM | Network settings

Network security group myNSGSecure (attached to networkInterface: simplewinvm798_z1)

Priority	Name	Port	Protocol
Inbound port rules (4)			
300	AllowRDP	3389	TCP
65000	AllowVnetInBound	Any	Any
65001	AllowAzureLoadBalancerInBound	Any	Any
65500	DenyAllInBound	Any	Any
Outbound port rules (3)			
65000	AllowVnetOutBound	Any	Any
65001	AllowInternetOutBound	Any	Any
65500	DenyAllOutBound	Any	Any

Add outbound security rule

Destination port ranges: *

Protocol: TCP

Action: Deny

Priority: 4000

Name: DenyInternet

Description:

Add Cancel Give feedback

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SimpleWinVM | Network settings

Search rules

Source == all Destination == all Protocol == all Action == all

Priority	Name	Port	Protocol	Source	Destination	Action
Inbound port rules (4)						
300	AllowRDP	3389	TCP	Any	Any	Allow
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	Allow
65500	DenyAllInBound	Any	Any	Any	Any	Deny
Outbound port rules (4)						
4000	DenyInternet	Any	TCP	Any	Internet	Deny
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowInternetOutBound	Any	Any	Any	Internet	Allow
65500	DenyAllOutBound	Any	Any	Any	Any	Deny

9. Browse to <https://www.microsoft.com>. The page should not display. You may need to work through additional IE enhanced security pop-ups.

SimpleWinVM - 48.217.185.202:3389 - Remote Desktop Connection

Internet Explorer Enhanced Security

Can't reach this page

Search...

Can't reach this page

Make sure the web address is correct

Search for this site on Bing

Refresh the page

More information

Fix connection problems

Action

- Allow
- Allow
- Allow
- Deny
- Deny
- Allow
- Allow
- Deny