

Create an App Service

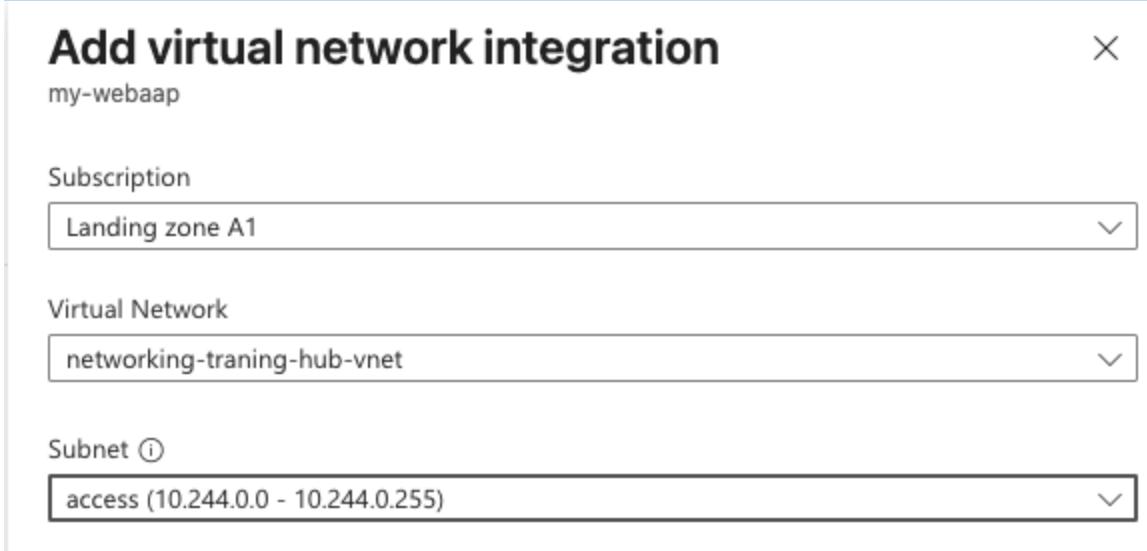
1. Navigate to the Azure Portal.
2. In the left-hand sidebar, click on "+ Create a resource."
3. Search for "Web App" and select it.
4. Click the "Create" button to initiate the setup.
5. Fill in the details for your App Service:
 - Subscription: Select the appropriate subscription.
 - Resource Group: Choose an existing resource group or create a new one.
 - Name: Provide a unique name for the App Service.
 - Publish: Select 'Code' or 'Docker Container' depending on your use case.
 - Runtime stack: Choose the appropriate runtime for your application (e.g., .NET, Node.js).
 - Operating System: Choose between Windows and Linux based on your application's requirements.
 - Region: Select the desired region.
 - App Service plan: Either use an existing plan or create a new one. Note: To use VNet Integration, the App Service plan should be a Premium, PremiumV2, or PremiumV3 tier.
6. Review any additional settings as needed and then click on the "Review + create" button.
7. After validation, click the "Create" button.

Enable VNet Integration for the App Service

1. Once your App Service is created, go to its overview page.
2. In the left-hand settings pane, under the "Settings" section, click on "Networking."

The screenshot shows the Azure portal interface for managing an App Service named 'my-webaap'. The 'Networking' tab is active in the left sidebar. The main area displays 'Inbound traffic configuration' and 'Outbound traffic configuration' settings. Under inbound traffic, 'Public network access' is set to 'Enabled with no access restrictions' and 'App assigned address' is 'Not configured'. Under outbound traffic, 'Virtual network integration' is 'Not configured', 'Hybrid connections' is 'Not configured', and 'Outbound DNS' is 'Default (Azure-provided)'.

3. Under the "VNet Integration" section, click on "Click here to configure."
4. Click on "+ Add VNet" to start the VNet Integration setup.
5. You'll be presented with two options: "Integrate with an existing virtual network" or "Create a new VNet." If you have an existing VNet you'd like to integrate with, select that. Otherwise, you can set up a new VNet directly from here.



6. Fill in the required details:
 - Virtual Network: If using an existing VNet, select it from the dropdown list.
 - Subnet: Choose the appropriate subnet.
7. Click "OK" to initiate the integration.

Use App Service Diagnostics

1. Navigate to Your App Service
 - Go to the Azure Portal.
 - In the left-hand sidebar, click on "App Services" and then select your specific App Service from the list.
2. Open App Service Diagnostics
 - In the left-hand settings pane for your App Service, click on "**Diagnose and solve problems.**"
3. Access the Networking Tools
 - Once inside the App Service Diagnostics, look for the section titled "Diagnostic Tools."
 - Click on "Networking Troubleshooter." This category contains diagnostic tools for checking the network-related configurations and issues of your App Service.
4. Use the Connection Issues tool to test the connection to different IPs and services
 - Test the connectivity to your Storage Account

Search for common problems or tools

AI-powered Diagnostics (preview) Refresh Feedback Get Resiliency Score report

Network/Connectivity Troubleshooter

Check your network connectivity and troubleshoot network issues

Destination type * Storage account

Target resource * stagingstoracc

Select a resource

Run connectivity check

Observations and Solutions (0)

Successful Checks (3)

Inbound connection allowed on destination resource

Description The destination resource allows inbound connections from this web app.

Details Unrestricted inbound access to the public internet is enabled.

Overview (stagingstoracc)

TCP connectivity successfully validated to destination endpoint.

Description Successfully established a TCP connection to all ip addresses of the destination endpoint.

5. Use NSGs to block the App Service from accessing the storage account private endpoint, but the VM should retain its access
6. To access the private endpoint, use the Kudu console: Advanced tools

The screenshot shows the Kudu interface for a web application. At the top, there's a navigation bar with links for Environment, Debug console, Process explorer, Tools, and Site extensions. Below the navigation bar, there's a breadcrumb trail showing the current path: / + | 7 items. There are also icons for Home, Help, and Log.

The main area displays a table of files and their details:

	Name	Modified	Size
+	ASP.NET	13/11/2025, 19:59:13	
+	Data	13/11/2025, 20:00:46	
+	LogFiles	13/11/2025, 19:59:17	
+	ShutdownSentinel	13/11/2025, 19:58:53	
+	site	13/11/2025, 20:00:52	
+	.gitconfig	13/11/2025, 19:59:16	1 KB
+	gitsafedirectory.marker	13/11/2025, 19:59:16	

Below the table, there's a dark blue footer section containing configuration details:

```
TTL : 257
Section : Answer
IP4Address : 20.209.48.97
```

Create Peering from VNet1 to Hub

1. In the Azure Portal, navigate to "Virtual networks" and select VNet (the first VNet).
2. In the VNet1 settings pane, under the "Settings" section, click on "Peerings."
3. Click on the "+ Add" button.
4. Fill in the details for the peering:
 - Name: Enter a descriptive name for the peering from VNet to networking-traning-hub-vnet.
 - Peer details: Select "I know my resource ID" or "I know my resource details" and then select networking-traning-hub-vnet as the peer VNet.
 - Allow virtual network access: Set to "Enabled" to allow resources in VNet to communicate with networking-traning-hub-vnet.
5. Click "OK" to create the peering.

Add peering

...

spoke1-vnet

Remote virtual network summary

Peering link name *	Sopoke1-net-hub-vnet
I know my resource ID ⓘ	<input type="checkbox"/>
Subscription *	Landing zone A1
Virtual network *	networking-traning-hub-vnet (networking-traning-hub-rg)

Remote virtual network peering settings

- Allow 'networking-traning-hub-vnet' to access 'spoke1-vnet' ⓘ
- Allow 'networking-traning-hub-vnet' to receive forwarded traffic from 'spoke1-vnet' ⓘ
- Allow gateway or route server in 'networking-traning-hub-vnet' to forward traffic to 'spoke1-vnet' ⓘ
- Enable 'networking-traning-hub-vnet' to use 'spoke1-vnet's' remote gateway or route server ⓘ

Local virtual network summary

Peering link name *	Net-hub-Spoke1-vnet
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Local virtual network peering settings

Allow 'spoke1-vnet' to access 'networking-traning-hub-vnet'

Allow 'spoke1-vnet' to receive forwarded traffic from 'networking-traning-hub-vnet'

Allow gateway or route server in 'spoke1-vnet' to forward traffic to 'networking-traning-hub-vnet'

Enable 'spoke1-vnet' to use 'networking-traning-hub-vnet's' remote gateway or route server

Test VNet Peering

1. Deploy VMs (or use existing ones) in both VNet and networking-traning-hub-vnet.
2. Obtain the private IP addresses of these VMs. Let's say VM1 is in VNet1 and VM2 is in networking-traning-hub-vnet.
3. From VM1, try to RDP the private IP address of VM2.
4. If the peering is set up correctly and there are no Network Security Group (NSG) rules blocking traffic, you should receive a response from VM2.
5. Play with the peering configurations
 - o One way peering

Solve the Transitivity problem

1. Create a route table for your Spoke
 - o Go to **Route tables**
 - o Click **Create**
 - o Resource group: **your-name-rg**
 - o Name: **spoke1-udr**
 - o Region: same as the spoke
 - o Click **Review + create** → **Create**
2. Add a route to Spoke 1 route table
 - o Open **spoke1-udr**
 - o Click **Routes** → **Add**

- Route name: **default-to-hub-fw**
 - Address prefix: **Select the Vnet address from one of your peers**
 - Next hop type: **Virtual appliance**
 - Next hop address: **private IP of the hub firewall**
 - Click **Add**
 - **Ask your peer to do the same with your network**
3. Associate Spoke 1 subnet
- Open **spoke1-udr**
 - Click **Subnets → Associate**
 - Virtual network: **spoke1-vnet**
 - Subnet: **spoke1-subnet**
 - Click **OK**
4. Verify traffic flow
- Ensure both spokes have the UDR applied
 - Ensure both spokes are peered to the hub
 - Ensure the firewall has rules allowing traffic
 - Try to RDP on your peer Vm

network-traning-rg199-b3d3b158 | Effective routes

Network interface

Search Download Refresh Give feedback

Showing only top 200 records, click Download above to see all.

Default	Active	100.64.0.0/10	None	-	-	
Default	Active	172.16.0.0/12	None	-	-	
Default	Active	25.176.0.0/13	None	-	-	
Default	Active	25.152.0.0/14	None	-	-	
Default	Active	25.184.0.0/14	None	-	-	
Default	Active	25.4.0.0/14	None	-	-	
Default	Active	25.148.0.0/15	None	-	-	
Default	Active	198.18.0.0/15	None	-	-	
Default	Active	25.150.0.0/16	None	-	-	
Default	Active	25.156.0.0/16	None	-	-	
Default	Active	25.159.0.0/16	None	-	-	
Default	Active	40.109.0.0/16	None	-	-	
Default	Active	192.168.0.0/16	None	-	-	
Default	Active	104.147.0.0/16	None	-	-	
Default	Active	157.59.0.0/16	None	-	-	
Default	Active	40.108.0.0/17	None	-	-	
Default	Active	104.146.0.0/17	None	-	-	
Default	Active	23.103.0.0/18	None	-	-	
Default	Active	20.35.252.0/22	None	-	-	
Default	Active	191.239.224.0/26, 494 ...	VirtualNetworkService...	-	-	
User	Active	10.1.0.0/16	Virtual appliance	10.3.3.4	gold-to-spoke1	
Default	Active	172.16.0.7/32	InterfaceEndpoint	-	-	

Connection

Computer: 10.1.0.4

User name: None specified

You will be asked for credentials when you connect.

Show Options Connect Help

Windows Security

Enter your credentials

These credentials will be used to connect to 10.1.0.4.

Email address
Email address

Password
Password

Remember me

OK Cancel

Windows IP Configuration

Ethernet adapter Ethernet:

```
Connection-specific DNS Suffix . : tx5txnxojgjunipb
Link-local IPv6 Address . . . . . : fe80::cb0b:129:3
IPv4 Address. . . . . : 172.16.0.4
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 172.16.0.1
```

C:\Users\azureuser>

Create a Private DNS Zone

1. Login to the Azure Portal:
 - a. Navigate to <https://portal.azure.com> and sign in with your Azure account.
2. Go to the 'Private DNS zones' Service:
 - a. In the left-hand menu, click on "Create a resource".
 - b. In the search box, type "Private DNS zones" and select it.
 - c. Click on the + Add button to create a new private DNS zone.
3. Fill in the Basics:
 - a. Select your Subscription and Resource Group (or create a new resource group).
 - b. Enter a name for the private DNS zone (e.g., myprivatezone.local).
 - c. Select the desired region (usually the same region as your VNet).
4. Review and Create:
 - a. Review the settings.
 - b. Click on Review + create, then click Create.

Link the Private DNS Zone to a VNet

1. Navigate to the Created Private DNS Zone:
 - o From the Azure portal dashboard, go to Resource groups.
 - o Select your resource group and click on the private DNS zone you just created.
2. Link to VNet:
 - o In the DNS zone's left menu, under the Settings section, click on Virtual network links.
 - o Click on the + Add button to create a new link.
3. Configure the Link:
 - o Provide a name for the link.
 - o Choose your Subscription (if it's not already selected).
 - o For the Virtual Network, select the desired VNet from the dropdown list.
 - o Set Registration to 'Yes' if you want the DNS records of the VMs in the VNet to be automatically registered in this DNS zone. Otherwise, set it to 'No'.
 - o Click OK to create the link.