






## Module 3 - Lab 5 - Create a Private Endpoint

-  A Private Endpoint is the fundamental building block for private link in Azure. It enables Azure resources, like Virtual Machines (VMs), to communicate privately with private link resources.


In this Lab, you will learn how to create a VM on an Azure Virtual Network, a logical SQL server with an Azure private endpoint using the Azure portal. Then, you can securely access SQL Database from the VM.

### Task 1: Sign in to Azure

- ☐ 1. Sign in to the Azure portal  <https://portal.azure.com> with the credentials  [sheikhnasirLXCT7@gdcs1.com](mailto:sheikhnasirLXCT7@gdcs1.com) and password  [xMOC7QbeZ3Q2IGlu](#)
- ☐ 2. A virtual machine and VNet have already been created for you.
- ☐ 3. Install SQL Server Management Studio from the following URL:  <https://docs.microsoft.com/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-2017>

 **Note:** You do not need to wait for SQL Management Studio to install before continuing.



### Task 2: Create a logical SQL server

-  In this task, you will create a logical SQL server in Azure.

- ☐ 1. On the upper-left side of the screen in the Azure portal, select **Create a resource > Databases > SQL database**.
- ☐ 2. In **Create SQL database - Basics**, enter or select this information:


Setting	Value
<b>Database details</b>	
Subscription	CloudShare1
Resource group	myResourceGroup-N9BWZQT1YZ
<b>INSTANCE DETAILS</b>	
Database name	Enter <i>mydatabase</i> . If this name is taken, create a unique name.

- ☐ 3. In **Server**, select **Create new**.
- ☐ 4. In **New server**, enter or select this information:

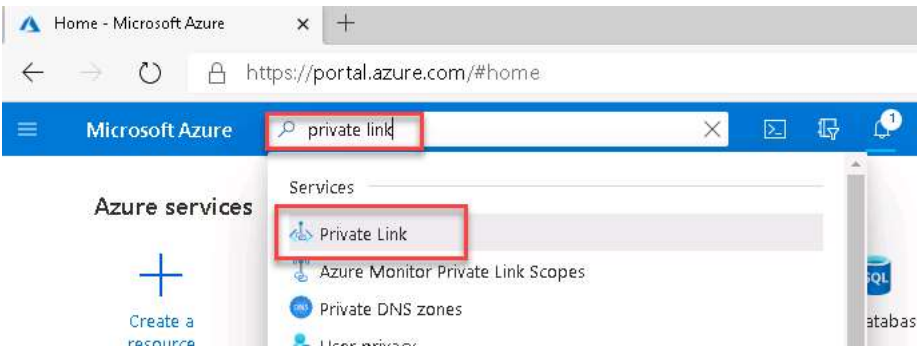
Setting	Value
Server name	Enter <i>myserver</i> . If this name is taken, create a unique name.
Server admin login	 <a href="#">SQLAdmin</a>
Password	 <a href="#">xMOC7QbeZ3Q2IGlu</a>
Location	East US

- ☐ 5. Select **OK**.
- ☐ 6. Select **Review + create**. You're taken to the **Review + create** page where Azure validates your configuration.
- ☐ 7. When you see the Validation passed message, select **Create**.

### Task 3: Create a private endpoint

-  In this task, you will create a private endpoint.

- ☐ 1. In the Azure Portal, search for and select **Private Link**



- ☐ 2. In **Private Link Center - Overview**, select **Create private endpoint**.
- ☐ 3. In **Create a private endpoint - Basics**, enter or select this information:

Setting	Value
<b>Project details</b>	
Subscription	CloudShare1
Resource group	myResourceGroup-N9BWZQT1YZ
<b>INSTANCE DETAILS</b>	
Name	Enter <b>myPrivateEndpoint</b> . If this name is taken, create a unique name.
Region	Select <b>EastUS</b> .

- ☐ 4. Select **Next: Resource**.
- ☐ 5. In **Create a private endpoint - Resource**, enter or select this information:

Setting	Value
Connection method	Connect to an Azure resource in my directory
Subscription	your subscription
Resource type	Microsoft.Sql/servers.
Resource	Unique database name created previously
Target sub-resource	sqlServer

- ☐ 6. Select **Next: Configuration**.
- ☐ 7. In **Create a private endpoint - Configuration**, enter or select this information:

Setting	Value
<b>NETWORKING</b>	
Virtual network	MyVNet.
Subnet	mySubnet.
<b>PRIVATE DNS INTEGRATION</b>	
Integrate with private DNS zone	Yes
Private DNS Zone	(New)privatelink.database.windows.net


⚠ MyVNet can take upto 15 minutes to show under virtual network.

- ☐ 1. Select **Review + create**. You're taken to the **Review + create** page where Azure validates your configuration.
- ☐ 2. When you see the **Validation passed** message, select **Create**.

#### Task 4: Connect to a VM using Remote Desktop (RDP)

- ☐ 1. In the portal's search bar, enter *myVm*.
- ☐ 2. Select the **Connect** button. After selecting the **Connect** button, **Connect to virtual machine** opens.
- ☐ 3. Select **Download RDP File**. Azure creates a Remote Desktop Protocol (.rdp) file and downloads it to your computer.
- ☐ 4. Open the *downloaded.rdp* file.
  - 1. If prompted, select **Connect**.

2. Enter the username  **LocalAdmin** and password  **hHdZF87FqAsjNMqF**

 **Note:** You may need to select **More choices > Use a different account**, to specify the credentials you entered when you created the VM.

- ☐ 5. Select **OK**.
- ☐ 6. You may receive a certificate warning during the sign-in process. If you receive a certificate warning, select **Yes** or **Continue**.
- ☐ 7. Once the VM desktop appears, minimize it to go back to your local desktop.

### Task 5: Access SQL Database privately from the VM



- ☐ 1. In the Remote Desktop of *myVM*, open PowerShell.
- ☐ 2. Enter the following command and **replace** *myserver* with your unique name

```
nslookup myserver.database.windows.net
```

You'll receive a message similar to this:

```
Server: UnKnown
Address: 168.63.129.16
Non-authoritative answer:
Name: myserver.privatelink.database.windows.net
Address: 10.0.0.5
Aliases: myserver.database.windows.net
```

- ☐ 3. Open **SQL Server Management Studio**.
- ☐ 4. In **Connect to server**, enter or select this information:

Setting	Value
Server type	<b>Database Engine.</b>
Server name	<b>myserver.database.windows.net</b> (replacing myserver with your unique name)
Authentication	<b>SQL Server Authentication</b>
User name	 <b>SQLAdmin</b>
Password	 <b>xMOC7QbeZ3Q2lGlu</b>
Remember password	Select <b>Yes</b> .

- ☐ 5. Select **Connect**.
- ☐ 6. Browse databases from left menu.
- ☐ 7. Close the remote desktop connection to *myVm*.

✓ In this lab, you created a VM on a virtual network, a logical SQL server, and a private endpoint for private access. You connected to one VM from the internet and securely communicated to SQL Database using Private Link.