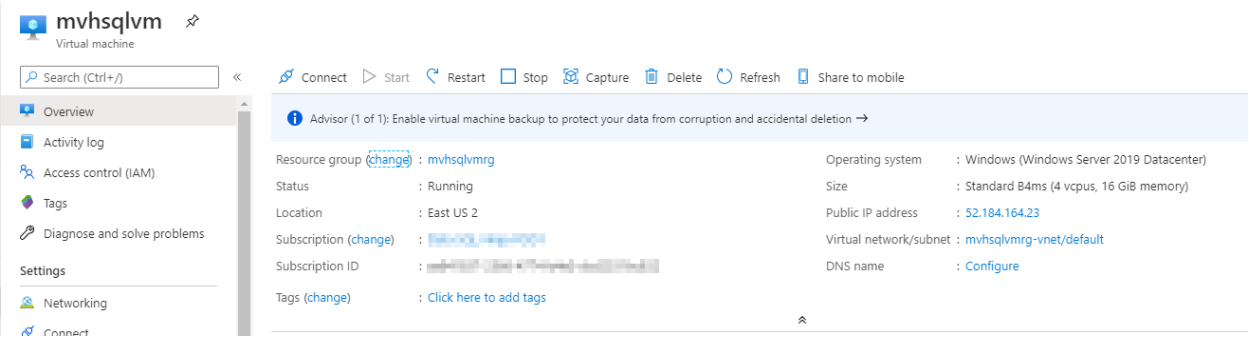
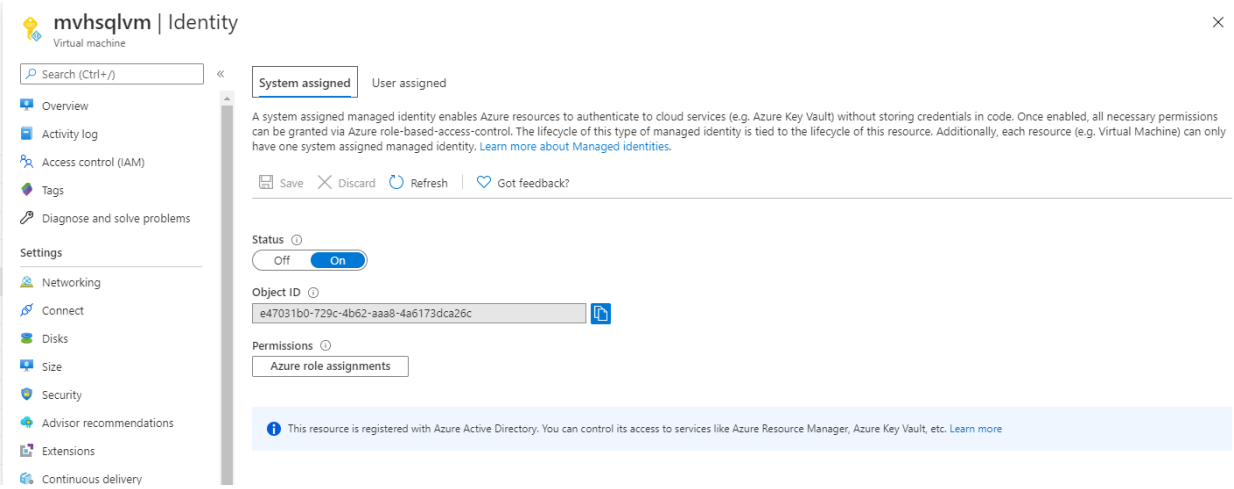
Using an Managed Identity from SSIS on an Azure IaaS VM

The following document describes how to connect to Azure SQL DB using an AAD managed identity.

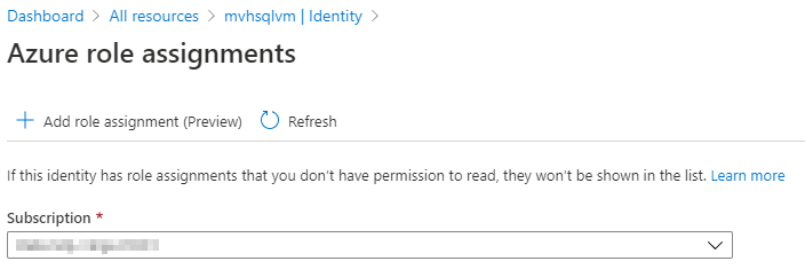
1. Provision a VM (in my case I provisioned a SQL 2019 VM on Windows 2019)



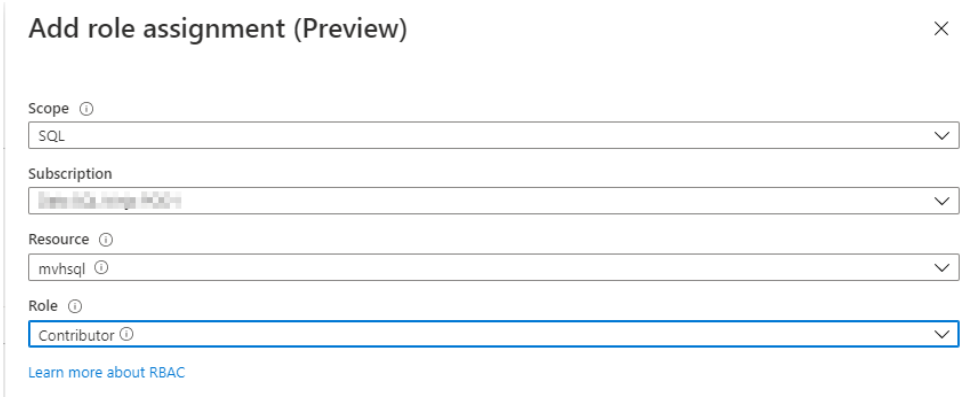
2. Configure the Identity tab to use a System assigned or User assigned identity



3. Click on Azure role assignments to add give the principal access to the Azure SQL instance.

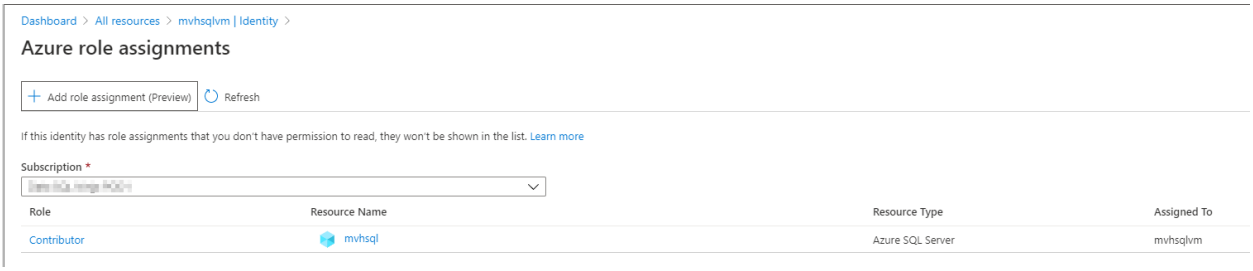


4. Add role assignment

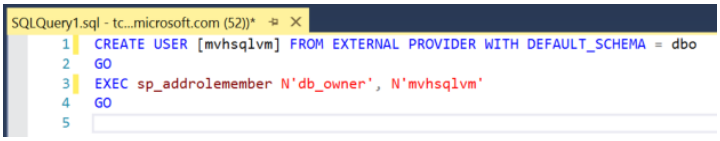


Reader and owner roles are also available. There are specific SQL roles, but note that they do not give you access to the database.

5. Click on Save

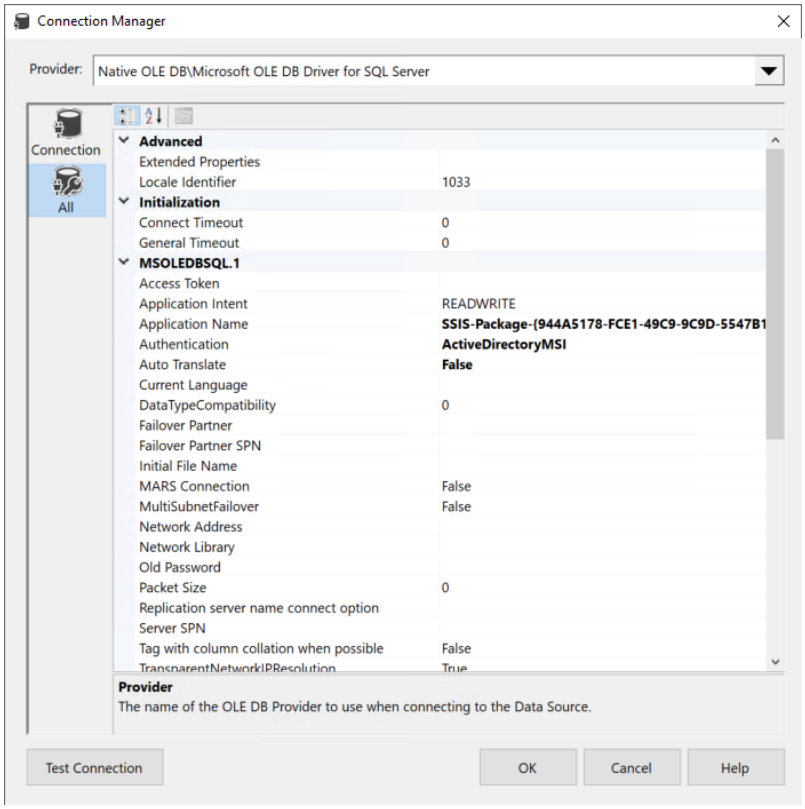


6. Log into the Azure SQL Database – add the Managed Identity principal to the database as a user and assign it to a role

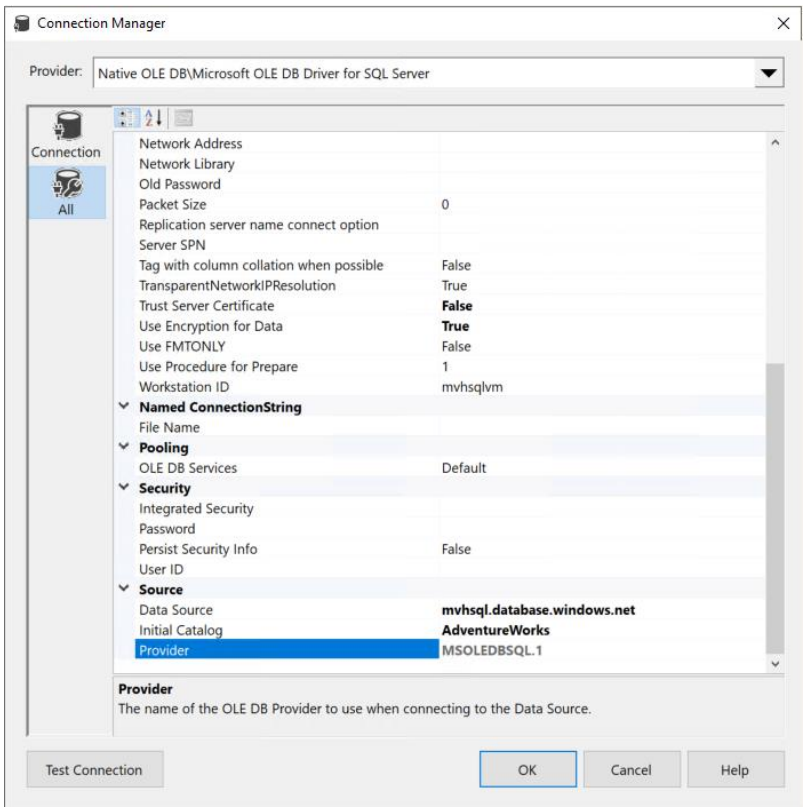


7. Open or create an SSIS package (in my case I installed VS 2019 Community Edition with SSDT enabled and added the SSIS component from the Marketplace. I then installed the OLEDB 18.4 driver package).

8. Create a new OLEDB connection, ensure you select the right OLEDB driver (Microsoft OLE DB Driver for SQL Server not the Native Client driver) and go to the “All” setting tab and set Authentication to ActiveDirectoryMSI

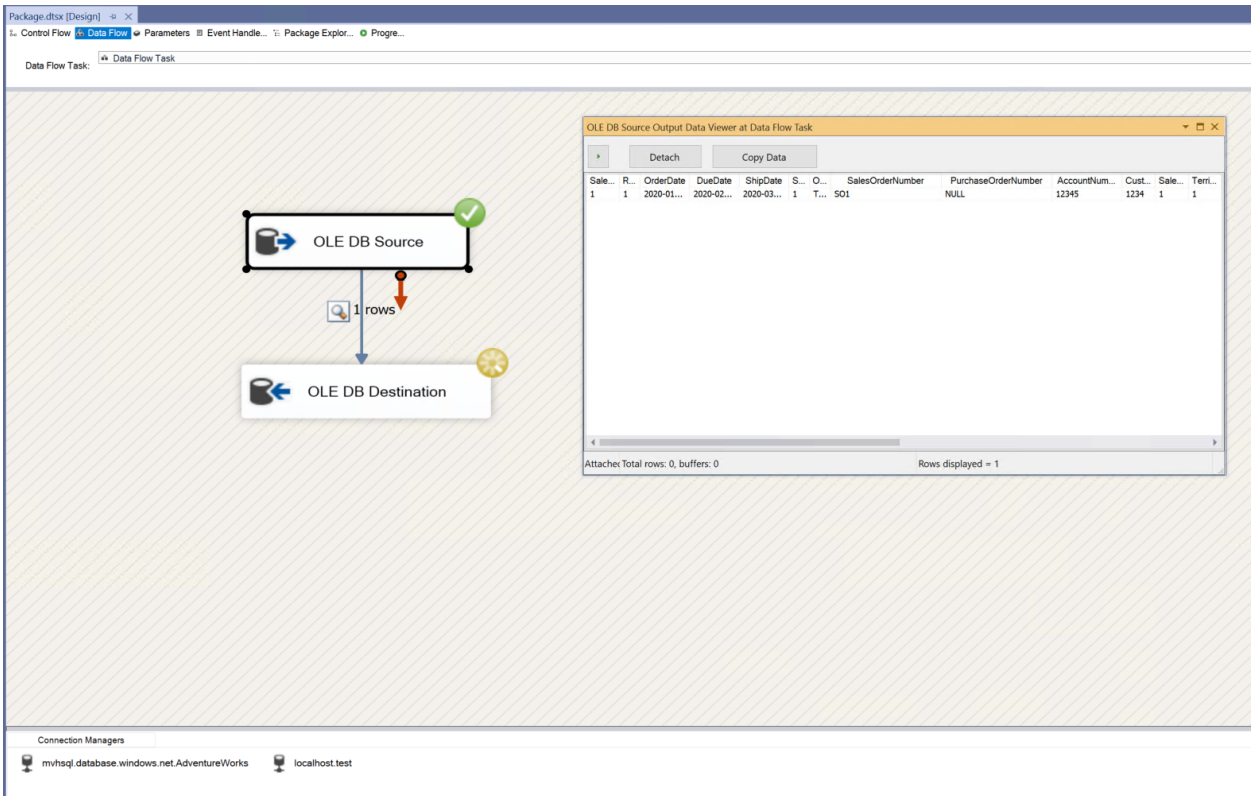


9. Clear the Integrated Security/SSPI setting and do not specify a password. Only set the User if you use a User assigned Managed Identity. Set the Use Encryption for Data to True.



10. Test the connection and be happy. 😊

11. To quickly test – I created a source and target data source and tried to transfer one table;


Package.dtsx [Design]
Control Flow
Data Flow
Parameters
Event Handle...
Package Explor...
Progre...
Data Flow Task:
Data Flow Task
OLE DB Source
1 rows
OLE DB Destination
OLE DB Source Output Data Viewer at Data Flow Task
Detach
Copy Data
Sale... R... OrderDate DueDate ShipDate S... O... SalesOrderNumber PurchaseOrderNumber AccountNum... Cust... Sale... Terri...
1 1 2020-01... 2020-02... 2020-03... 1 T... SO1 NULL 12345 1234 1 1
Attached Total rows: 0, buffers: 0
Rows displayed = 1
Connection Managers
mvhsql.database.windows.net.AdventureWorks
localhost.test