

Msg 46521 - Queries over external tables are not supported with the current service tier or performance level of this database

Last updated by | Vitor Tomaz | Jun 8, 2022 at 5:36 AM PDT

Contents

- [Issue](#)
- [Investigation/Analysis](#)
- [Mitigation](#)
- [RCA](#)
- [Root Cause Classification](#)

Issue

T61 in Azure SQL MI brings changes to creating and querying external tables, which is now allowed only if PolyBase is explicitly enabled on the instance:

Msg 46521, Level 16, State 26, Line 1

Queries over external tables are not supported with the current service tier or performance level of this database. Consider upgrading the service tier or performance level of the database.

Customers trying to use it for the first time may get:

Msg 102, Level 15, State 1, Line 1

Incorrect syntax near 'EXTERNAL'.

Investigation/Analysis

Error is also discoverable from Kusto like:



```
let startTime = datetime('{StartTime}');
let endTime = datetime('{EndTime}');
let instanceName = '{ServerName}';
AlrSQLErrorsReported
| where TIMESTAMP between(startTime..endTime)
| where LogicalServerName =~ instanceName
| where AppTypeName == 'Worker.CL'
| where error_number == '46521' and state == '26' and severity == '16'
| summarize count() by AppTypeName, LogicalServerName, SubscriptionId
```



Mitigation

(Available on RCA)

RCA

Querying external table may fail with generic error message "*Queries over external tables are not supported with the current service tier or performance level of this database. Consider upgrading the service tier or performance level of the database*". The only type of external table supported in Azure SQL Managed Instance are PolyBase external tables (in preview). To allow queries on PolyBase external tables, you need to enable PolyBase on managed instance by running `sp_configure` command.

External tables related to [Elastic Query](#)  feature of Azure SQL Database are [not supported](#)  in SQL Managed Instance, but creating and querying them wasn't explicitly blocked. With support for PolyBase external tables, new checks have been introduced, blocking querying of *any* type of external table in managed instance unless PolyBase is enabled.

If you're using unsupported Elastic Query external tables to query data in Azure SQL Database or Azure Synapse from your managed instance, you should use Linked Server feature instead. To establish Linked Server connection from SQL Managed Instance to SQL Database, please follow instructions from [this article](#) . To establish Linked Server connection from SQL Managed Instance to SQL Synapse, check [step-by-step instructions](#) . Since configuring and testing Linked Server connection takes some time, you can use a workaround as a temporary solution to enable querying external tables related to Elastic Query feature:

Workaround:

Execute the following commands (once per instance) that will enable queries on external tables:

```
sp_configure 'polybase enabled', 1
go
reconfigure
go
```

Root Cause Classification

Cases resolved by this TSG should be coded to the following root cause:
(TBD)

How good have you found this content?

