# Msg 16562 - External table is not accessible because location does not exist or it is used by another process

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

#### Contents

- Issue
- Investigation/Analysis
- Mitigation
- Root Cause Classification

#### Issue

When customer try to read the data he get's the following error.

Msg 16562, Level 16, State 1, Line 1

External table '' is not accessible because location does not exist or it is used by another process.

After T62 deployment the error the customer will get is the following.

Msg 16561, Level 16, State 1, Line 1

External table '' is not accessible because content of directory cannot be listed.

## Investigation/Analysis

Happens for EXTERNAL TABLE queries, in case of bad credential or invalid file path. This is not very transparent for bad credential scenarios but is fixed with T62 and will after that deployment present another error (see Issue section).

Until T62 is deployed, possible causes:

- 1. Invalid SAS key
- 2. SEP: networking policy not allowing vnet access to this storage
- 3. Networking: Port 443 not allowed for outbound traffic
- 4. Access denied (SAS key is valid and not expired, but does not provide sufficient permissions)
- 5. Invalid file path

Error is also discoverable from Kusto like:

```
AlrSQLErrorsReported
 where TIMESTAMP > ago(3h) and LogicalServerName == "<instance name>"
 summarize count() by NodeName, error_number, state
| where error_number in (4860, 13822, 16561, 16562)
```

## Mitigation

- 1. Invalid SAS key
  - Check the SAS key (expired, invalid or typo, forgot to remove "?" from the start)
- 2. SEP: networking policy not allowing vnet access to this storage
  - Allow access to the storage account
    - Configure service endpoint policies (Preview) for Azure SQL Managed Instance 

      ☐
  - check firewall rules and private connection settings
    - Azure Storage Grant access from a virtual network
- 3. Networking: Port 443 not allowed for outbound traffic
  - Check subnet NSG rules and fix there
- 4. Access denied (SAS key is valid and not expired, but does not provide sufficient permissions)
  - Validate permissions of the given SAS key, or create a new one
- 5. Invalid file path
  - Validate file path and retry

### **Root Cause Classification**

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

## How good have you found this content?

