

Import or Export Investigation - Sterling

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Contents

- [Issue](#)
- [Investigation/Analysis](#)
 - [Interpreting Progress %](#)
 - [Import Progress %](#)
 - [Export Progress %](#)
- [Typical errors](#)
- [Mitigation](#)
- [Internal Reference \(optional\)](#)
- [Root Cause Classification](#)

Issue

This TSG will cover the basic initial investigation into Import Export failures based on the new Sterling based IE service.

Typically when an Import or Export has failed the customer will be able to provide the Request ID you should ask the customer for this, its not a disaster if they can't provide it though.

Investigation/Analysis

If you have the Request ID from the customer you can use this to inspect MonManagement and MonManagementOperations tables to get some idea about what went wrong. For example

MonManagementOperations

```
| where request_id == "37600FEE-D054-4653-99EE-6629880E6691"
```

```
| project
```

```
TIMESTAMP,ClusterName,NodeName,event,request_id,subscription_id,operation_type,operation_category,operation_parameters
```

The operation_parameters are probably of most interest to us, typically it looks like this.

```
<InputParameters xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<SubscriptionId>435641c1-841e-4bc8-80a3-f3f3bba44354</SubscriptionId>
<ResourceGroup>we-europe</ResourceGroup>
<ServerName>we-server</ServerName>
<DatabaseName>bacpacgap</DatabaseName>
<OperationType>Export</OperationType>
<Edition>Standard</Edition>
<ServiceObjectiveName>S2</ServiceObjectiveName>
<MaxSizeBytes>268435456000</MaxSizeBytes>
```

```
<StorageKeyType>SharedAccessKey</StorageKeyType>
<StorageUri>https://cc2store.blob.core.windows.net/exevt/bacpacgap-2021-1-5-13-45.bacpac </StorageUri>
<AuthenticationType>SQL</AuthenticationType>
<UseImportExportApp>true</UseImportExportApp>
<UseHighConcurrencyImportExportQueue>>false</UseHighConcurrencyImportExportQueue>
<SourceDBShouldExist>true</SourceDBShouldExist>
</InputParameters>
```

But if the request ID is not provided you can run something like this to find all the IE operations for a server and how they ended.

MonManagement

```
| where operation_parameters contains "we-server"
| where operation_type contains "ExportDatabase" or operation_type contains 'Import'
| project TIMESTAMP, operation_type, event, elapsed_time, request_id, database_name
| order by TIMESTAMP asc
```

The output will look something like this

Specifically, we are looking at 'event' for failure logs.

To get a simple list of Import/Exports for a given server you could also use the following

MonImportExport

```
| where logical_server_name contains "we-server"
| where Level =~ 'Verbose'
| project TIMESTAMP, NodeName, AppName, AppTypeName, request_id
, logical_server_name, LogicalDatabaseName, Detail
```

Once we have identified the specific request we can pull details of that request using the following

Looking at a specific export we can use the following :

MonImportExport

```
| where request_id =~ "501704a3-b49d-4945-b930-796ed19b0fff"
| project TIMESTAMP, NodeName, AppName, AppTypeName, request_id
, logical_server_name, LogicalDatabaseName, Detail
```

Interpreting Progress %

Import Progress %

1. Import starts at 1%
2. If/while db creation is requested progress still remains at 1%
3. While blob is being downloaded progress still remains at 1% (future improvement schedule to report between 1%-5%)
4. While DacFx "installs" schema progress still remains at 1% (with above improvement it will be at 5%) (DacFx does not report to us progress for "install")
5. While DacFx imports table data progress will be reported between 15%-95%
6. While DacFx finalizes schema progress remains at 95%

7. On completion progress finishes at 100%

Export Progress %

1. Export starts at 1%
2. While DacFx runs extract progress remains 1% (DacFx does not report to us progress for "extract")
3. While DacFx exports the table data progress will be reported between 10%-90% (DacFx does report to us progress for "export")
4. While blob is uploading progress remains at 90% (current improvement in the works to report from 90%-99%)
5. On completion progress finishes at 100%

Typical errors

I ran a query to get a list of common errors they appear to fall into othe following categories

Exception details
Microsoft.Xdb.ImportExport.Operations.Exceptions.BadSqlCredentialsException
Microsoft.Xdb.ImportExport.Operations.Exceptions.BadSqlFirewallException
Microsoft.Xdb.ImportExport.Operations.Exceptions.DacOperationWrappedDacServicesException
System.AggregateException
Microsoft.Xdb.ImportExport.Operations.Exceptions.UnknownSqlException
Microsoft.SqlServer.Dac.Data.DataException
Microsoft.Xdb.ImportExport.Operations.Exceptions.InvalidDatabaseException
Microsoft.Xdb.ImportExport.Operations.Exceptions.BadSqlAdalException
System.ArgumentException
Azure.RequestFailedException
Failed to update status.
Microsoft.Xdb.ImportExport.Operations.Exceptions.InvalidStorageUriException
Microsoft.Xdb.ImportExport.Operations.Exceptions.ImportInterruptedException
System.AggregateException

Mitigation

The exception recieved will need to be investigated further but the MonImportExport does, for some errors there will be suggested sollutions, this can be found in the ExceptionMessage column, for example

MonImportExport | where request_id =~ "501704a3-b49d-4945-b930-796ed19b0fff"
| where Level =~ 'Critical'
| project ExceptionType,ExceptionMessage

ExceptionType	ExceptionMessage
Microsoft.Xdb.ImportExport.Operations.Exceptions.BadSqlFirewallException	The Azure SQL Server firewall did not allow the operation to connect. To resolve this, please selec the "Allow All Azure"checkbox in the S Server's configuration blade.
System.Data.SqlClient.SqlException	Please see PiilImportExportExceptio for the complete messag

Internal Reference (optional)

This may include links to architecture, training material, etc. that is helpful for understanding the steps given above.

Root Cause Classification

Cases resolved by this TSG should be coded to the following root cause:
<Root cause path>

How good have you found this content?

