

## Attunity Compose for Data Warehouses 6.4 Release Notes - March 2019

Attunity Compose for Data Warehouses 6.4 introduces several new features including support for Snowflake Data Warehouse, Granular Access Control, General Availability of Microsoft Azure SQL Data Warehouse as a Compose data warehouse, and the ability to import physical entities from ERwin.

- » [Migration and Upgrade](#)
- » [Granular Access Control](#)
- » [Support for Importing Physical Entities from ERwin](#)
- » [Support for Snowflake Data Warehouse](#)
- » [General Availability of Microsoft Azure SQL Data Warehouse](#)
- » [Direct Support for Amazon Redshift](#)
- » [Newly Supported Database Versions](#)
- » [Resolved Issues](#)
- » [Known Issues](#)

## Migration and Upgrade

The following procedure describes the steps required to successfully upgrade from Compose 3.1 to Compose for Data Warehouses 6.4. Note that there are two procedures. The procedure you need to perform depends on whether or not you are using Amazon Redshift as a data warehouse. The *first* procedure should be performed if you are *not* using Amazon Redshift as a data warehouse whereas the second procedure should be performed if you *are* using Amazon Redshift as a data warehouse.

**Note** Before upgrading, it is recommended to validate the model and to delete tasks that are not valid.

All CLI commands in the procedure should be run from the following directory:

**<INSTALL\_DIR>\Compose for Data Warehouses\bin**

### To upgrade from Compose 3.1 to Compose for Data Warehouses 6.4:

1. Install Compose for Data Warehouses 6.4 (as a new installation) on the same machine as Compose 3.1.
2. Disable scheduled jobs on Compose 3.1.
3. Stop the **Attunity Compose** (3.1) service.
4. Stop the **Attunity Compose for Data Warehouses** (6.4) service.
5. Copy the **data** directory from **<INSTALL\_DIR>\Compose** to **<INSTALL\_DIR>\Compose for Data Warehouses**, replacing the existing **data** directory.

6. Run the following command:

```
ComposeCli.exe upgrade
```

7. Start the **Attunity Compose for Data Warehouses** service.

8. Run the following command:

```
ComposeCli.exe connect
```

9. Generate all ETLs on Compose for Data Warehouses 6.4 by running the following command:

```
ComposeCli.exe generate_etls
```

Any invalid tasks will be skipped and an appropriate error will be printed to the output.

For more details about a specific error, open the the **composeclient.log** in the Log Viewer and search for [ERROR].

### Notes

- » The ETL generation process may take a while (depending on the number of tasks and projects) as Compose for Data Warehouses needs to connect to each of the relevant databases.
- » If you prefer, you can regenerate the ETL instructions manually for each task. Note however that a task will fail to run until its ETL instructions are regenerated.

10. Enable scheduled jobs on Compose for Data Warehouses 6.4.
11. Backup Compose 3.1. Once you have verified that everything is working properly with the new Compose for Data Warehouses 6.4 installation, proceed to uninstall Compose 3.1.

### To upgrade from Compose 3.1 to Compose for Data Warehouses 6.4 when using Amazon Redshift as a data warehouse:

1. Install Compose for Data Warehouses 6.4 (as a new installation) on the same machine as Compose 3.1.
2. Disable scheduled jobs on Compose 3.1.
3. Create a deployment package for each project.
4. Stop the **Attunity Compose** (3.1) service.
5. Repeat the following procedure for each project:
  - a. Deploy the package you create earlier on Compose 6.4.
  - b. In the Project Settings **General** tab, enable the **Generate DDL scripts but do not run them** option.
  - c. In the **Data Warehouse** panel, click **Create Tables**.
  - d. Disable the **Generate DDL scripts but do not run them** option you enabled earlier.
6. Run the following command:

```
ComposeCli.exe connect
```

7. Generate all ETLs on Compose for Data Warehouses 6.4 by running the following command:

```
ComposeCli.exe generate_etls
```

Any invalid tasks will be skipped and an appropriate error will be printed to the output.

For more details about a specific error, open the the **composeclient.log** in the Log Viewer and search for [ERROR].

#### Notes

- » The ETL generation process may take a while (depending on the number of tasks and projects) as Compose for Data Warehouses needs to connect to each of the relevant databases.
- » If you prefer, you can regenerate the ETL instructions manually for each task. Note however that a task will fail to run until its ETL instructions are regenerated.

8. Backup Compose 3.1. Once you have verified that everything is working properly with the new Compose for Data Warehouses 6.4 installation, proceed to uninstall Compose 3.1.

## Granular Access Control

For each user, Compose now lets you set granular access permissions for different hierarchy levels in the system and for different objects at the same hierarchy level. The levels (in hierarchical order) are: Compose, All Projects, Project, and Model.

Granular access control facilitates decentralization of control, effectively restricting users from accessing areas of the system that are not relevant to them. For instance, the same user/group may be assigned the **Designer** role at the **Model** level for a specific project, but be restricted to the **Viewer** role at the **All Projects** level.

## Support for Importing Physical Entities from ERwin

In previous versions, Compose supported Model generation using the logical entities from an imported ERwin XML file. From Compose for Data Warehouses 6.4, users can choose whether to generate the Model based on logical entities or *physical* entities in the ERwin file. The ability to generate the Model based on physical entities is useful for organizations that require the Model (and the resulting data warehouse) to closely resemble the source database.

To support this new functionality, the following options have been added to the **Import from ERwin** window:

Read entities from:

- Logical model  
 Physical model

## Support for Snowflake Data Warehouse

Compose for Data Warehouses 6.4 introduces support for Snowflake as a data warehouse, both on AWS and on Azure.

## General Availability of Microsoft Azure SQL Data Warehouse

Support for Microsoft Azure SQL Data Warehouse as a Compose data warehouse has moved from beta to GA.

## Direct Support for Amazon Redshift

In previous versions, the Amazon Redshift data warehouse was supported via the Attunity Compose for Amazon Redshift AMI, which is no longer available.

From this version, customers who wish to use Amazon Redshift as a Compose data warehouse can do so simply by installing Compose for Data Warehouses and the required drivers (just like any other supported data warehouse).

For more information, please refer to the *Compose for Data Warehouses Help*.

## Newly Supported Database Versions

The following database versions are now supported:

- » Oracle 18.3 (source and data warehouse)
- » MySQL 8.0.11 (source only)
- » IBM DB2 11.1 (source only)

## Resolved Issues

The following issues have been resolved in this release.

Component/Process	Type	Description	Ref #
Generate	Issue	After upgrading from Compose 3.1 to 6.3, when working with Microsoft SQL Server 2008, attempting to generate any ETL would result in the following error:  SYS,General Exception,  Object reference not set to an instance of an object.	187785
Notifications	Issue	Event ID "0" would be reported to Window Event Log when multiple events were selected in a task notification.  This was documented as a limitation.	161349 162293
Deployment	Issue	If the project name contained spaces, the deployment package generated from within Compose would be truncated at the first space	185902
Monitor	Issue	Clicking the <b>Standby / Waiting</b> link for ETL commands in the Monitor would open an empty window.	185245
Data Mart Filter	Issue	Invalid data mart SQL would be generated when filtering a Type 2 attribute in a Fact table.	186122
Mappings	Issue	When a schema name was changed, instead of the mappings being automatically updated with the new schema name, Compose would continue to look for the source tables in the previous schema.	183655

Component/Process	Type	Description	Ref #
Microsoft SQL Server Data Source	Issue	When clicking the <b>Test Connection</b> button for a Microsoft SQL Server data source configured to use Windows Authentication, a "Failed to get connection" error would be encountered.	186610
Amazon Redshift Data Warehouse	Issue	Some queries used the NOT EXISTS clause which would fail in some environments.	187390
Discovery	Issue	Discovering tables that have column names with spaces, results in missing mappings for those columns.	CMPS-3294
Monitor	Issue	The monitor would sometimes reset the Total ETL completed percentage to zero during long tasks.	185247
Workflows	Issue	When a Replicate task encountered an error, Compose would also set the task state to error. However, when the same task recovered from the error, the task would remain in an error state in the workflow.	150403

## Known Issues

The following are the known issues in this release.

Component/Process	Description	Ref #
Teradata	Teradata Data Warehouse is not certified for use with this version.	N/A
Changing the schema in the Landing Area	When changing the name of the schema in the Landing Area connection settings, the <b>Edit Mappings</b> window displays the new schema, but the ETL will still contain the old schema name after it is regenerated.	183655 CMPS-7024
DDL Scripts	Some of the DDL scripts contain the database name and some do not.  If you need to run the scripts manually, make sure to run them on the database specified in the script.	CMPS-2922
Teradata	When ingesting data from Teradata, Compose partially treats primary keys as case sensitive and partially as case insensitive. This is due to a conflict with the session mode used in the landing area (case sensitive) and the session mode Compose uses to create the staging tables (case insensitive).  This may lead to duplicate records.	CMPS-3623
Data Marts	A data mart that is not valid will change its status to valid if the Attunity Compose service is restarted.	CMPS-3665
Pivot Table	When the same column is included in two different dimensions, the pivot table shows the wrong data.	CMPS-3995



Component/Process	Description	Ref #
Global Transformations in Replicate	<p>Replicate allows you to define global transformations that are applied to tables during task runtime. However, it is not recommended to define the following global transformations, as they are not compatible with Compose tasks:</p> <ul style="list-style-type: none"> <li>» Rename Table</li> <li>» Rename Table Schema</li> </ul> <p><b>Workaround:</b></p> <ul style="list-style-type: none"> <li>» If you need to use the Rename Table transformation in the Replicate task, set the primary key manually in the database.</li> <li>» If you need to use the Rename Table Schema transformation in the Replicate task, perform the Discover operation (to generate the Model) from the source and not from the landing area. See the Help for more information about Discovering from the source.</li> </ul>	CMPS-6790 182270
Running Adjust Scripts on Microsoft Azure SQL Data Warehouse	<p>Adjust scripts that need to be run manually start with DROP CONSTRAINT, which causes them to fail.</p> <p><b>Workaround:</b></p> <p>Edit the script to remove the DROP CONSTRAINT section and then run it.</p>	CMPS-7015

---

<b>Component/Process</b>	<b>Description</b>	<b>Ref #</b>
Snowflake Data Type Mapping	<p>Replicate maps TIME data types in the source to STRING (16). However, Compose discovers TIME data types in the source as TIME, which would be mapped to TIME (9) in Snowflake, resulting in a data type mismatch error.</p> <p><b>Workaround:</b></p> <p>Enable the <b>Ignore Mapping Data Type Validation</b> option in the Project Settings. This will allow the mapping from STRING (16) to TIME (9) to succeed, although the millisecond precision will be ignored.</p>	CMPS-7506

---