



FABRIC RELEASE NOTES

FABRIC V6.5.4 RELEASE NOTES

These Release Notes describe the new features in Fabric release V6.5.3 and lists bugs that have been fixed since release V6.5.3.

Certification of this Fabric release is based on:

- Cassandra version 3.11.9 and 4.0.
- SQLite version 3.34.0.
- Open JDK version jdk-8u312.
- Confluent Kafka version 5.5.1.
- OrientDB tp3-3.1.2.
- Elastic oss-7.6.0.

MAIN FEATURES AND IMPROVEMENTS

1. Fabric BI Improvements

- **BI Installation:**
 - BI docker image is available.
 - Performance and stability improvements
 - The OS for the BI server was updated to Ubuntu server 20.04 (instead of Centos).
 - The BI installation package now includes Devart driver for PostgreSQL Storage Management DB (instead of Npgsql).

Thus, when Storage Management DB is PostgreSQL, set DB provider in **config.ini** as follows: `STORAGE_MGMT_DB_PROVIDER=Devart.Data.PostgreSql`

- **Deep Link** enhancement:
 - You can now include session parameters and a run-time filter when generating a report via deep link. For dashboards – only the session parameters are applicable.
 - The format for sending the parameters and the filter is as follows:
`<host>:<port>/app/BI/<report path in BI>?pkey1=pval1&pkey2=pval2&k2filters=[{"FilterText":table_name.column_name, "Values": [values] }]`
 - Note that the **k2filter value should be encoded** using any URL Decoder tool (for example <https://meyerweb.com/eric/tools/dencoder/>).
 - The example of a deep link URL that includes an encoded k2filter is:



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`http://localhost:3213/app/BI/subsc_list_per_cust?k2filters=%5B%7B%20%22FilterText%22%3A%20%22SUBSCRIBER_REF.SUBSCRIBER_DESC%22%2C%20%22Values%22%3A%20%5B%22SOHO%22%5D%20%7D%5D`

- **BI configuration deployment to Production.** A new Fabric command is introduced to enable updating the connection details of the data sources defined in the WebReports.XML configuration file, to keep the sensitive information safe and to automate the process.
 - The syntax is: `MOVE_TO_PROD_BI ENV = [ENV NAME]`
 - The command matches the BI data sources with the Fabric interfaces (based on the input Environment name) by their names, and for the matched interfaces it updates the WebReports.XML data source connection details with the interface connection details.
 - Note that running the command requires PHP engine installation.

2. Broadway

- Added *Uncollapse all option* in Actions, which opens all collapsed stages in one click.
- The following Actors were added:
 - **FabricDelete Actor** – perform a DELETE INSTANCE command on one or more identifiers.
 - **Assert* Actors** – supports the testing pipeline tool.
- The following Actors were modified:
 - **FileWrite Actor** – a new input parameter called `ioBufferSize` was added to improve the performance. It holds a size of the memory buffer before flushing to the underlying file system. If left empty, uses the system default (8K).
 - **DbLoad Actor** - supports Cassandra BLOB fields.
 - **StringPos Actor**
 - Support regex on substring input parameter.
 - Add "found" result as output parameter.
 - **MaskingLuFunction Actor** – remove `luType` input parameter, a Broadway flow can no longer activate LuFunctions in a different LU. This ability created memory leak issues and had to be removed.
 - **MapBuild Actor**
 - Support the “allUnique” mode to maintain all unique values.
 - Add “previous” and “isNew” output parameters
 - Previous - The previous value associated with the key. If there was no previous value, a null is returned, in all modes.



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- isNew - true if the value key is new. This is the same as checking if 'previous' equals null.

- **XMLParser** Actor enhancements:
 - **skipRoot** is a new input argument which enables iterating on the XML elements when **skipRoot** is set to true. This feature enables handling large XML files without loading full XML to memory. When the root is skipped, the actor returns a stream of elements.
 - XML document info (such as version) is now returned in a new output argument.

3. LUI Encryption

- A new LUI encryption mode has been introduced. It is possible to encrypt the LUI when saving it to Cassandra. The encryption is done after the compression. The advantage of using this encryption mode is twofold compared to the non-encrypted mode: The data is stored encrypted in Cassandra, and at the same time the data has minimal performance and storage impact. It is important to mention that data in the cache is not encrypted, therefore it is the user's responsibility to ensure that the data in the cache is secured on the operating system level.
- A new parameter is introduced in the config.ini file, called ENTITY_ENCRYPTION_MODE, it has two values:
 - ON_SAVE – encrypt the LUI when saving (after the compression) – default.
 - MDB – encrypt the LUI on MicroDB (sqlite) level.
- In order to keep an LU not encrypted, make sure Enable Data Encryption property on LU schema level is defined as False (default).

4. Data Catalog

- Added the analysis of Broadway as a population to the Data Catalog and Data Lineage capabilities.

5. Command Enhancements and Additions

- **Search** – A new parameter called AS_JSON was added. When set to true, the result set is returned as a table with only one row and one column named "json" that contains the original elastic search API JSON payload response (default value for this is false).

This option should be used when looking for extra information returned by elastic search API that is not presented on the Fabric search command parsing mechanism.

6. Batch Monitor

- Present the progress of a batch process even when in GENERATE_IID_LIST status.



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7. Business Tables

- Introducing the ability to create tables and store them in the LU schema while leaving the user with the ability to decide whether they have one or more populations or whether they are connected or not to other tables in the LU schema.
- Such tables allow the user to compute/transform/store new data into microDBs (e.g. statistics, LUI-based calculations etc ...).

8. Big LUIs

- Major performance improvement was introduced when dealing with big LUIs, stored by many chunks.
- To turn this feature on, set the following in config.ini
 - ENABLE_PARTITIONED_MDB=true
 - ASYNC_LOAD_MAX_THREADS bigger than zero
- There is no upgrade path for existing projects, so you need to clean all data in Fabric and bring it back.
- It is recommended to turn this feature on only in when dealing with really big LUIs that are split into many chunks.

9. Studio

- Table Properties: Change the "Instance PK Column" field name to "Instance ID Column".
- Affinity property was added to SFTP and local file system interfaces.

10. Web- Service

- A new property, called *Require Authentication*, was added. When set to false, it will allow calling the Web-Service by skipping the Authentication (default value is true). This mode should be used carefully - only if a Web-Service should be accessible for everyone without enforcing API key, user/password, etc.

11. Kafka SASL Authentication

- Kafka interface was enhanced: SSL and SASL section were divided into different sections, and new flavors of SASL authentication were added in addition to SASL plaintext that was supported on previous releases. The following SASL flavors are supported:
 - SASL_PLAIN
 - SASL_SCRAM
 - SASL_LDAP
 - SASL_GSSAPI



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12. CDC

- CDC solution is no longer limited to 63 fields per LU table.

13. Miscellaneous

- Fabric was certified on Cassandra 4.0.
- Resolved new 3rd party security vulnerability issues.
- Timeout parameter was added to the Fabric client use. See the Fabric -help for more details.
- Data Explorer
 - Performance improvements were made when displaying Big LU tables:
When dealing with Big LU Tables, a spinner is displayed until data is shown.

RESOLVED ISSUES

- Merged defect fixes from Fabric release 6.4.7.
- Ticket #25489 - attempt to deploy a project while a project with different name was already deployed causes interfaces removal from original deployed project.
- Ticket #25689 – when using getTableName() API in Enrichment function it always returns the root table name.
- Ticket #25569 – ref_status and ref_sync tables='all' is now working.
- Ticket #26023 - the URL generated by Fabric for a graphit file without parameters includes "null" after the API name.
- Ticket #25507 - Broadway editor corrupts flow - no way to stop the flow.
- Ticket #25905 – Deploy fails sometimes, as connection to Cassandra is closed too early.
- Web-Service fails when input content type equals to charset=utf-8.
- When using Broadway population on common tables, number_of_records was wrongly presented as 0 in common.k2_objects_info table.
- luDecrypt API is now working when used within an enrichment function.
- Data Catalog – fix the columns order within table object.
- Query Builder is disabled in DBCommand Actor when interface input parameter is defined as external.
- List BF command replicates wrongly Broadway flow input parameter according to the number of times it is used within the flow.
- Broadway: Resolve automatic casting problem from INT to Boolean.



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- Broadway: DBLoad Actor failed when using Date format when loading data to Cassandra. In addition, when date is selected, the Cassandra JDBC driver of Fabric returns cassandra.Date format instead of java.Date format.
- Ticket #24089 – Resolved exception when using lib/plugins jars.
- Ticket #26028 – Performance improvement when using Web Application within LU.
- When a batch routine is running with invalid affinity, it gets stuck in the "waiting for job" status.
- Offline deployment of LU that is not part of the implementation is not failing.
- Ticket #26408 – resolve masking keyspaces timeouts.

iidFinder

- Delta partition – in some scenarios, instances are getting synced in an infinite loop.
- Ticket #25891 - Misleading message by initFinderTables
- Wrong Kafka topic was created when dealing with iidFinder over common tables related to a schema name different than common.

Batch Monitor

- In Batches list, execution Id is not fully displayed when column is manually increased.
- Batches list table flickers every 5 seconds.
- Node Execution Summary, remove redundant information.
- Entity Summary now reflects the load distribution between all the nodes. Previously, it displayed the numbers correctly, but all histograms had the same high level.
- When a batch routine was running from the Web Admin, its command was saved with a space after the LU name.
- In Process Entities tab- the execution id was populated by the batch ID instead of the execution id.