

Encryption using Voltage

Feature available in Helium 6.0.2 release

Helium

The DataSync Agent plugin architecture allows the agent to modify inbound payloads before the data is inserted into a database or saved to a file. Thus, encrypting specified values using Voltage encryption can be applied before inserting the row into your database. When you specify the list of tables and column names in the **encrypt_columns** parameter in the format of <table>:<column>;<table>:<column>;etc., i.e. incident:comments, the plugin will encrypt these specific columns that contain sensitive information for your infrastructure to decrypt and process themselves.

NOTE: This is a custom feature for a specific use case to encrypt data saved using the Voltage API before saving it into the database. Contact [Perspectium Support](#) for more information.

Prerequisites

- ⚠ First, you will need to set up one of the Perspectium [DataSync Agents](#).
- ⚠ You should also [stop running your DataSync Agent](#) before making any Agent configuration changes.

Procedure

To start using the Voltage API in your DataSync Agent, follow these steps:

1

Navigate to the directory where you saved your agent.xml file when installing your DataSync Agent.

2

Open your agent.xml file in a text editing application. Then, add the following attributes within the plugin directive:

Parameters	Description	Required?
url	REST url endpoint	Yes
trace_id	Identifier for each request made to the API	No. If empty or not included, a GUID will be generated for each request otherwise all requests will use the specified trace_id.
app_name	Name of the application, i.e. Perspectium Agent	Yes
host_name	If empty or not included, then host_name will be set to the name of the computer/machine running the agent	No
identity	Identifier for application using the API	No
shared_secret	Secret phrase shared between clients using API	Yes
encryption_type	Encryption method, i.e. AES = 3	Yes
encrypt_columns	List of tables and columns to be encrypted by the Voltage API. Lists need to be in the following format: table1:columnA;table1:columnB;table2:columnA	Yes

In the <plugin> directive, add the following value: **com.perspectium.replicator.sql.plugin.SQLSubscriberVoltageEncrypterPlugin**.

```
<plugin url="https://example.com/api" trace_id="" app_name="agent" host_name="psp" identity=""
shared_secret="secret" encryption_type="3" encrypt_columns="u_edge_testing:u_test_column1,
u_edge_testing:u_notes,incident:comments">com.perspectium.replicator.sql.plugin.
SQLSubscriberVoltageEncrypterPlugin</plugin>
```

Example of a complete agent.xml configuration with the Voltage API plugin applied:

```

<?xml version="1.0" encoding="ISO-8859-1" ?>
<config>
  <agent>
    <max_reads_per_connect>1</max_reads_per_connect>
    <polling_interval>5</polling_interval>
    <subscribe>
      <task>
        <polling_interval>5</polling_interval>
        <task_name>oracle_subscriber_automated_test</task_name>
        <handler>com.perspectium.replicator.sql.SQLSubscriber</handler>
        <decryption_key>Some decryption key here</decryption_key>
        <message_connection user="demo" password="demo" queue="psp.out.replicator.agent.
example">https://example.perspectium.net</message_connection>
        <use_cache/>
        <instance_connection user="demo" password="demo">https://exmaple.service-now.com<
/ininstance_connection>
        <database_type>sqlserver</database_type>
        <database_server>localhost</database_server>
        <database_port>1521</database_port>
        <database_user>example</database_user>
        <database_password>example</database_password>
        <database_parms/>
        <database>psp_db</database>
        <skip_columns_log_interval>200</skip_columns_log_interval>
        <plugins>
          <plugin url="https://example.com/api"
            trace_id=" "
            app_name="example"
            host_name="psp"
            identity=" "
            shared_secret="example"
            encryption_type="3"
            encrypt_columns="u_edge_testing:u_test_column1,u_edge_testing:
u_notes,incident:comments">com.perspectium.replicator.sql.plugin.
SQLSubscriberVoltageEncrypterPlugin</plugin>
        </plugins>
      </task>
    </subscribe>
  </agent>
</config>

```