

Enable upsert to a database

Gold

For **.bulk** messages, the **DataSync Agent** will query for a record to see if it exists and if so, **update** that record. Otherwise if the record doesn't exist, an **insert** will occur. However for databases that support it, the Agent can perform an **upsert** action where updating or inserting is done in one action to help improve performance on large tables that have hundreds of millions or billions of records. To enable this, you will need to use the **<enable_upsert/>** directive.

Enabling upsert is only available for [SAP Hana](#).

Prerequisites

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

Procedure

To enable upsert to your database, follow these steps:

1

Access your agent.xml configuration file

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

2

Add the **<enable_upsert/>** directive

Open your **agent.xml** file in a text editing application. Then, locate the **<task>** directive(s) and nest the **<enable_upsert/>** directive.

3

Save your agent.xml

Save the changes you've made to your **agent.xml** and close the file. Your **agent.xml** should look similar to the example shown below:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<config>
  <agent>
    <truncate_utf8/>
    <share/>
    <subscribe>
      <task instances="4">
        <task_name>test_hana2_subscribe</task_name>
        <message_connection password="encrypted:v10tU71yu8N
/EFIJH85SSBtaIt7qEEfvqiqt9VZyYE=" queue="psp.out.replicator.testqueue" user="admin"
>https://testperspectium.net</message_connection>
        <instance_connection password="encrypted:v10tU71yu8N/EFIJH85SSPN9aF0P5
/YViVwPEVFcGW4=" user="test.user">https://myinstance.service-now.com</instance_connection>
        <handler>com.perspectium.replicator.sql.SQLSubscriber</handler>
        <decryption_key>The cow jumped over the moon</decryption_key>
        <database_type>hana</database_type>
        <database_server>localhost</database_server>
        <database_port>3306</database_port>
        <database_user>root</database_user>
        <database_password>encrypted:v10tU71yu8N/EFIJH85SSMoilKLTeJHqRNPJ7c5tFU=<
/database_password>
        <database_parms>characterEncoding=UTF-8 & useSSL=false</database_parms>
        <database_column_max_size>251</database_column_max_size>
        <database>psp_repl</database>
        <skip_alter/>
          <enable_upsert/>
        </task>
      </subscribe>
      <max_reads_per_connect>4000</max_reads_per_connect>
      <polling_interval>5</polling_interval>
      <skip_message_set_processing/>
    </agent>
  </config>
```

4

Run your Agent again

After configuring your agent.xml file to enable upsert to your database, [start running your DataSync Agent](#) again.

Similar topics

- [Change data types](#)
- [DataSync Agent field type mappings](#)
- [Monitoring DataSync Agent logs](#)
- [Skip altering of database tables](#)
- [Specify Working Directories for Agent Files](#)

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