

DataSync Agent configuration

Fluorine+

The file that controls the configuration settings for Perspective DataSync Agents is the **agent.xml** file. This file is automatically created within the Agent's **bin** directory upon [installation](#). To make changes to the configuration settings for your DataSync Agent, open this **agent.xml** file in a text editing application and modify the directives described in the sections below.

NOTE: The directives described below are only the **essential** configurations that must be set for your DataSync Agent. For additional DataSync Agent configuration settings, see the **Similar topics** list below or browse the topics under [DataSync](#).

Share & subscribe

DataSync Agents can perform two main functions, **share** and **subscribe**. To enable these functions, nest one or many of the following directives within the **agent.xml**'s **<agent>** directive:

Directive	Description
<share>	An Agent configured with <share> functionality (also known as a producer) monitors static data sources and places messages from those sources into queues in the Perspective Mesh.
<subscribe>	An Agent configured with <subscribe> functionality (also known as a consumer) monitors queues in the Perspective Mesh and processes any messages in those queues, typically by routing those messages to a static data source. blocked URL NOTE: This is the more common use case for the DataSync Agent.

Message batching directives (optional)

To improve the performance for your DataSync Agent, you can optionally add some batching directives that specify what constitutes a batch of messages that will trigger message processing.

Directive	Description
<max_reads_per_connect>	Maximum number of messages to consumer per connection interval
<max_writes_per_connect>	Maximum number of messages to produce per connection interval
<polling_interval>	Interval of time in which the agent consumes from the designated target queue
<skip_message_set_processing>	Self-closing tag that disables Message Set posting for data shared from ServiceNow

Task & handler

The **<task>** directive defines a specific **<share>** or **<subscribe>** function that your DataSync Agent should perform. Multiple **<task>** directives can be nested within the **<share>** and **<subscribe>** directives, and individual configurations can be defined for each **<task>** by nesting further configuration directives (described in the following sections) within each **<task>**.


Directive	Description
<task>	Task that handles either sharing or subscribing. You can configure separate settings by defining directives within each <task> directive. You can also specify an instances attribute here and give it a value of 4 (default) so that 4 instances of your <share> or <subscribe> task can run concurrently, thus improving throughput for data processing. blocked URL NOTE: You do not need to enter a value within the <task> directive. Nest all configuration directives noted below within your each of your <task> directives.
<task_name>	Name for your <task> . By default, this is generated from the instance name as {instancename}_subscribe , and in most cases should not be changed. blocked URL NOTE: Only alphanumeric characters, numbers, and underscores are permitted as values for <task_name> .
<handler>	Name of the Java handler class. In most cases, the value for this directive will be com.perspective.replicator.sql.SQLSubscriber .

Task Configurations

Under the **<task>** directive are configurations related to the task your DataSync Agent is performing such as saving data to a database. These different configurations are as follows:

Message, instance, and schema connection

The **<message_connection>** and **<instance_connection>** directives define how your DataSync Agent connects to the Perspectium Mesh and ServiceNow instance, respectively. For your DataSync Agent to connect to your Salesforce organization, you will need to include the **<message_connection>** and **<schema_connection>** directives.

Directive	Required attributes	Description				
<message_connection>	user = Perspectium Mesh username	Perspectium Mesh URL e.g., https://mymesh.perspectium.net				
	password = Perspectium Mesh password blocked URL NOTE: You can optionally base64 encode this password, and include the base64 encoded string after encrypt: for this attribute's value.					
	queue = Perspectium Mesh queue name					
	The use_basic_consume attribute will depend on the type of messaging protocol you will be using. e.g., https://mymesh.perspectium.net					
	<table><tr><th>Protocol</th><th>Value</th></tr><tr><td>HTTPS</td><td>use_basic_consume = false</td></tr><tr><td>AMQPS</td><td>use_basic_consume = true</td></tr></table>		Protocol	Value	HTTPS	use_basic_consume = false
Protocol	Value					
HTTPS	use_basic_consume = false					
AMQPS	use_basic_consume = true					
<instance_connection>	user = ServiceNow instance username  This ServiceNow username must have the perspectium role assigned in order to access ServiceNow table schemas.	ServiceNow instance URL e.g., https://myinstance.service-now.com				
	password = ServiceNow instance password blocked URL NOTE: You can optionally encrypt this password by entering encrypt: followed by the password for this attribute's value. For example, "encrypt:password1". This will encrypt the password the first time the Agent is run and change the attribute's value to "encrypted:<encrypted_password>" to indicate as such.					
<schema_connection>	user = Salesforce org username	Salesforce org URL e.g., https://login.salesforce.com/services/oauth2/token				
	password = Salesforce org password blocked URL NOTE: You can optionally encrypt this password by entering encrypt: followed by the password for this attribute's value. For example, "encrypt:password1". This will encrypt the password the first time the Agent is run and change the attribute's value to "encrypted:<encrypted_password>" to indicate as such.					
	client_id = Salesforce Consumer Key for the Perspectium Replicator app					
	client_secret = Salesforce Consumer Secret for the Perspectium Replicator app					

Encryption key & decryption key


The **<encryption_key>** directive is used with **<share>** tasks to encrypt data that is being shared from a static data source to an application. The **<decryption_key>** directive is used with **<subscribe>** tasks to decrypt data that was encrypted by a sharing application. The value for the **<encryption_key>** directive should match the subscribing application's decryption key, and the value for the **<decryption_key>** direction should match the sharing application's encryption key.

Directive	Description
<encryption_key>	Encryption key used to encrypt data being shared from a static data source to an application
<decryption_key>	Decryption key used to decrypt data being shared from an application

Database


There are several directives related to your static data source, or database, that the DataSync Agent connects to. For more information on how to configure your database information in the **agent.xml** configuration file, see [Perspectium SQL Replicator Agent Configuration Guide](#).

Directive	Description
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<database_type>	Type of database you are syncing your data to. Supported databases and associated values for the <database_type>: <table><thead><tr><th>Supported database</th><th>Value to enter for <database_type></th></tr></thead><tbody><tr><td>Oracle</td><td>oracle</td></tr><tr><td>MS SQL Server</td><td>sqlserver</td></tr><tr><td>MySQL</td><td>mysql</td></tr><tr><td>Snowflake</td><td>snowflake</td></tr><tr><td>SAP Hana</td><td>hana</td></tr><tr><td>Amazon Redshift</td><td>redshift</td></tr><tr><td>IBM DB2</td><td>db2</td></tr><tr><td>HP Vertica</td><td>vertica</td></tr><tr><td>PostgreSQL</td><td>postgres</td></tr></tbody></table>	Supported database	Value to enter for <database_type>	Oracle	oracle	MS SQL Server	sqlserver	MySQL	mysql	Snowflake	snowflake	SAP Hana	hana	Amazon Redshift	redshift	IBM DB2	db2	HP Vertica	vertica	PostgreSQL	postgres
Supported database	Value to enter for <database_type>																				
Oracle	oracle																				
MS SQL Server	sqlserver																				
MySQL	mysql																				
Snowflake	snowflake																				
SAP Hana	hana																				
Amazon Redshift	redshift																				
IBM DB2	db2																				
HP Vertica	vertica																				
PostgreSQL	postgres																				
<database_server>	URL for your database. If your database is installed on your local machine, set this value to localhost .																				
<database_port>	Port number for your database																				
<database_user>	Username used to connect to your database																				
<database_password>	Password used to connect to your database																				
<database_parms>	(Optional) Can be used to pass additional parameters to the database server during establishment of the connection e.g., characterEncoding=UTF-8 & useSSL=false																				
<database>	Name of your database																				
<database_column_max_size>	Maximum size of an object that can appear in your database's columns																				
<database_sid>	SID used for your Oracle database  NOTE: This directive is required for DataSync integrations to an Oracle database only.																				
	Available in Fluorine Plus Patch 3																				
<column_sort>	Sorts your database's columns in a specified order. blocked URL NOTE: <ul style="list-style-type: none">Currently, this directive only supports alphabetical order. Value should be set to alpha.Temporal columns will always be firstNew fields will be added at the end																				

Data Guarantee

These directives configure how the DataSync agent works with [Data Guarantee](#).

Directive	Description
<receipt_send_interval>	(Optional) Indicates the number of seconds in which the Agent will regularly send receipts back to the sharing/publishing instance.  NOTE: This directive defaults to 1800.
<skip_report>	(Optional) stops DataSync Agent from sending message receipts back to the ServiceNow instance you are sharing from.

Example basic agent.xml configuration

The example below shows some of the basic configurations that must be set for a Perspective DataSync Agent. For additional DataSync Agent configuration settings, see the **Similar topics** list below or browse the topics under [DataSync](#).

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<config>
  <agent>
    <max_reads_per_connect>4000</max_reads_per_connect>
    <polling_interval>5</polling_interval>
    <skip_message_set_processing/>
    <share/>
    <subscribe>
      <task instances="4">
        <task_name>acmedev_subscribe_subscribe</task_name>
        <message_connection password="encrypted:v1OtU71yu8N/EFIJH85SSBtaIt7qEEfvqiqrt9VZyYE=" queue="psp.out.replicator.testqueue" user="admin" use_basic_consume="false">https://testperspectium.net</message_connection>
        <instance_connection password="encrypted:v1OtU71yu8N/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>mysql</database_type>
        <database_server>localhost</database_server>
        <database_port>3306</database_port>
        <database_user>root</database_user>
        <database_password>encrypted:v1OtU71yu8N/EFIJH85SSMoilKLTeJHQRNZPJ7c5tFU=</database_password>
        <database_parms>characterEncoding=UTF-8 & useSSL=false</database_parms>
        <database_column_max_size>251</database_column_max_size>
        <database>psp_repl</database>
      </task>
    </subscribe>
  </agent>
</config>
```

Similar topics

- [Set up DataSync Agent to share to PostgreSQL](#)
- [Set up DataSync Agent to share to HP Vertica](#)
- [Set up DataSync Agent to share to Snowflake](#)
- [Set up DataSync Agent to share to MySQL](#)
- [Skip altering of database tables](#)

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