

Edge Encryption Support

The DataSync Agent can be configured to decrypt ServiceNow records with data encrypted using [Edge Encryption](#). Perspectium provides support for records encrypted using the **AES-128** and **AES-256** options.

Prerequisites

⚠ First, you will need to set up one of the Perspectium [DataSync Agents](#).

⚠ You should [stop running your DataSync Agent](#) before making any Agent configuration changes.

The DataSync Agent provides a **plugin** to support decrypting data that is edge encrypted. In order to decrypt this, you will need the following:

1. Edge Encryption enabled in your ServiceNow instance
2. Edge Encryption [proxy server](#) installed and configured
3. [Keystore](#) containing the encryption key used for **Edge Encryption**. This keystore can be stored in an [Azure Key Vault](#) cloud key management or stored locally on a filesystem the Agent has access to.

With this information available, add the following configuration directives to your task definition within your **agent.xml** file:

All attributes are required to access the keystore from the Azure Key Vault.

For Azure Key Vault, add the following:

Directive	Parameters	Required?	Example Value
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<plugin>	<div>Plugin that will decrypt Edge Encrypted replicated data.</div> <table><tr><th>Parameter</th><th>Description</th></tr><tr><td>keystore</td><td>Specifies where the keystore is located. Value: azure</td></tr><tr><td>vault_tenant</td><td>tenant_id for the Azure Key Vault containing the keystore*</td></tr><tr><td>vault_url</td><td>URL to the Azure Key Vault*</td></tr><tr><td>vault_principal</td><td>principal_id for the Azure Key Vault*</td></tr><tr><td>principal_secret</td><td>password for the Azure Key Vault*</td></tr><tr><td>secret_name</td><td>Name of the keystore^</td></tr><tr><td>keystore_password</td><td>password for the keystore^</td></tr><tr><td>keystore_alias</td><td>Name of the key alias^</td></tr><tr><td>alias_password</td><td>Password for the key^</td></tr></table> <div><p>*See Authentication in Azure Key Vault for more information on these configurations.</p><p>^See Edge Encryption properties for more information on these configurations.</p></div> <div><pre><config> <agent> <subscribe> <task> ... <plugin keystore="azure" vault_tenant="VAULT_TENANT_GOES_HERE" vault_url="VAULT_URL_GOES_HERE" vault_principal="VAULT_PRINCIPAL_GOES_HERE" principal_secret="PRINCIPAL_SECRET_GOES_HERE" secret_name="SECRET_NAME_GOES_HERE" keystore_password="KEYSTORE_PASSWORD_GOES_HERE" keystore_alias="KEYSTORE_ALIAS_GOES_HERE" alias_password="ALIAS_PASSWORD_GOES_HERE" >com.perspectium.replicator.sql.plugin.SQLSubscriberDecryptColumnPlugin< /plugin> </task> </subscribe> </agent> </config></pre></div>	Parameter	Description	keystore	Specifies where the keystore is located. Value: azure	vault_tenant	tenant_id for the Azure Key Vault containing the keystore*	vault_url	URL to the Azure Key Vault*	vault_principal	principal_id for the Azure Key Vault*	principal_secret	password for the Azure Key Vault*	secret_name	Name of the keystore^	keystore_password	password for the keystore^	keystore_alias	Name of the key alias^	alias_password	Password for the key^	Yes	See example below.
Parameter	Description																						
keystore	Specifies where the keystore is located. Value: azure																						
vault_tenant	tenant_id for the Azure Key Vault containing the keystore*																						
vault_url	URL to the Azure Key Vault*																						
vault_principal	principal_id for the Azure Key Vault*																						
principal_secret	password for the Azure Key Vault*																						
secret_name	Name of the keystore^																						
keystore_password	password for the keystore^																						
keystore_alias	Name of the key alias^																						
alias_password	Password for the key^																						

Example of a complete agent.xml configuration with the keystore in an Azure Key Vault

```

<?xml version="1.0" encoding="ISO-8859-1" ?>
<config>
  <agent>
    <max_reads_per_connect>1</max_reads_per_connect>
    <polling_interval>5</polling_interval>
    <test_mode/>
    <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="USER" password="PASSWORD" queue="psp.out.replicator.dev1234"
>https://URL.perspectium.net</message_connection>
        <use_cache/>
        <instance_connection user="USER" password="PASSWORD">https://dev1234.service-now.com<
/instance_connection>
        <database_type>sqlserver</database_type>
        <database_port>1234</database_port>
        <database_server>SERVER_URL</database_server>
        <database_user>USER</database_user>
        <database_password>PASSWORD</database_password>
        <database_parms>lockTimeout=15000;queryTimeout=15</database_parms>
        <database>DATABASE_NAME</database>
        <skip_columns_log_interval>200</skip_columns_log_interval>
        <plugins>
          <plugin keystore="azure"
            vault_tenant="12345678-ab12-ab12-ab12-123456789ab"
            vault_url="https://url.vault.azure.net/"
            vault_principal="12345678-ab12-ab12-ab12-123456789ab"
            principal_secret="3213156165-adasdads_als5d6a5s1d6a"
            secret_name="some_secret_name"
            keystore_password="efg123"
            keystore_alias="128bitkey"
            alias_password="abc123">com.perspectium.replicator.sql.plugin.
SQLSubscriberDecryptColumnPlugin</plugin>
          </task>
        </subscribe>
      </agent>
    </config>

```

If the keystore containing the encryption key is saved locally in the filesystem that the Agent has access to, add the following:

Directive	Description	Required?	Example Value
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<plugin>	<div>Plugin that will decrypt Edge Encrypted replicated data.</div> <table><thead><tr><th>Parameter</th><th>Description</th></tr></thead><tbody><tr><td>keystore</td><td>Specifies where the keystore is located. Value: local</td></tr><tr><td>keystore_path</td><td>File path to the keystore^</td></tr><tr><td>keystore_password</td><td>Password for the keystore^</td></tr><tr><td>keystore_alias</td><td>Name of the key alias^</td></tr><tr><td>alias_password</td><td>Password for the key^</td></tr></tbody></table> <div>^See Edge Encryption properties for more information on these configurations.</div> <div><pre><config> <agent> <subscribe> <task> ... <plugin keystore="local" keystore_path="KEYSTORE_PATH_GOES_HERE" keystore_password="KEYSTORE_PASSWORD_GOES_HERE" keystore_alias="KEYSTORE_ALIAS_GOES_HERE" alias_password="ALIAS_PASSWORD_GOES_HERE" >com.perspectium.replicator.sql.plugin.SQLSubscriberDecryptColumnPlugin< /plugin> </task> </subscribe> </agent> </config></pre></div>	Parameter	Description	keystore	Specifies where the keystore is located. Value: local	keystore_path	File path to the keystore^	keystore_password	Password for the keystore^	keystore_alias	Name of the key alias^	alias_password	Password for the key^	Yes	See example below.
Parameter	Description														
keystore	Specifies where the keystore is located. Value: local														
keystore_path	File path to the keystore^														
keystore_password	Password for the keystore^														
keystore_alias	Name of the key alias^														
alias_password	Password for the key^														

Example of a complete agent.xml configuration with the keystore in a local filesystem the Agent has access to:

```

<?xml version="1.0" encoding="ISO-8859-1" ?>
<config>
  <agent>
    <max_reads_per_connect>1</max_reads_per_connect>
    <polling_interval>5</polling_interval>
    <test_mode/>
    <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="USER" password="PASSWORD" queue="psp.out.replicator.dev1234"
>https://URL.perspectium.net</message_connection>
        <use_cache/>
        <instance_connection user="USER" password="PASSWORD">https://dev1234.service-now.com<
/instance_connection>
        <database_type>sqlserver</database_type>
        <database_port>1234</database_port>
        <database_server>SERVER_URL</database_server>
        <database_user>USER</database_user>
        <database_password>PASSWORD</database_password>
        <database_parms>lockTimeout=15000;queryTimeout=15</database_parms>
        <database>DATABASE_NAME</database>
        <skip_columns_log_interval>200</skip_columns_log_interval>
        <plugins>
          <plugin keystore="local"
            keystore_path="abcdefg"
            keystore_password="efg123"
            keystore_alias="128bitkey"
            alias_password="abc123">com.perspectium.replicator.sql.
plugin.SQLSubscriberDecryptColumnPlugin</plugin>
          </task>
        </subscribe>
      </agent>
    </config>

```

If you want to use attachment handling with edge encryption so the attachments are each saved as a complete file, see [Merging Attachments in the Database](#).

Can't find what you're looking for?

See [the FAQ](#) or browse the [Perspectium Community Forum](#).