Informatica®

Informatica® Cloud Data Integration

Advanced SFTP V2 Connector

Informatica Cloud Data Integration Advanced SFTP V2 Connector
December 2023

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Preface

Use the Advanced SFTP V2 Connector to learn how to read files from and to write files to an SFTP server. Learn how to create a connection and how to use connections in file ingestion tasks and in B2B Gateway.

Informatica Resources

Informatica provides you with a range of product resources through the Informatica Network and other online portals. Use the resources to get the most from your Informatica products and solutions and to learn from other Informatica users and subject matter experts.

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Access the Informatica Intelligent Cloud Services Community at:

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To find resources on using Application Integration (the Informatica Cloud Real Time service), access the community at:

https://network.informatica.com/community/informatica-network/products/cloud-integration/cloud-application-integration/content

Developers can learn more and share tips at the Cloud Developer community:

https://network.informatica.com/community/informatica-network/products/cloud-integration/cloud-developers

Informatica Intelligent Cloud Services Marketplace

Visit the Informatica Marketplace to try and buy Data Integration Connectors, templates, and mapplets:

https://marketplace.informatica.com/community/collections/cloud_integration

Data Integration connector documentation

You can access documentation for Data Integration Connectors at the Informatica Cloud Community: https://network.informatica.com/cloud/index.htm

Informatica Knowledge Base

Use the Informatica Knowledge Base to find product resources such as how-to articles, best practices, video tutorials, and answers to frequently asked questions.

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CHAPTER 1

Introduction to Advanced SFTP V2 Connector

This chapter includes the following topics:

- Advanced SFTP V2 Connector overview, 6
- Advanced SFTP V2 supported task types and asset types, 7

Advanced SFTP V2 Connector overview

Advanced SFTP V2 Connector enables you to securely transfer to and from SFTP servers.

When you transfer files to and from an SFTP server, you can specify the Secure Agent. When you use SFTP objects in file ingestion tasks, you configure properties specific to SFTP.

Create an Advanced SFTP V2 connection and use the connection as a source or as a target in file ingestion tasks and B2B Gateway partner flows.

When you create an Advanced SFTP V2 connection, you specify the runtime environment that contains the Secure Agent. Create an Advanced SFTP V2 connection to specify the location of SFTP sources or targets that you want to include in a file ingestion task and B2B Gateway partner flows.

When you run a file ingestion task, the Secure Agent transfers files to or from an SFTP server, based on the task and the Advanced SFTP V2 connection configuration. The Secure Agent connects and reads files from and writes files to the SFTP server through a TCP/IP network.

When you use an Advanced SFTP V2 source in a file ingestion task, you can schedule the task to receive notifications from a file listener.

Example

You work for an organization that stores audit trail logs in an on-premises SFTP server. You need to move data from the on-premises SFTP site to an affordable cloud-based environment. Create a file ingestion task to read all the audit trail logs from the SFTP server and write them to an Amazon S3 target.

Advanced SFTP V2 supported task types and asset types

The following table lists the tasks and asset types that the Advanced SFTP V2 Connector supports:

Task Type	Source	Target
File Ingestion	Yes	Yes

CHAPTER 2

Advanced SFTP V2 Connections

This chapter includes the following topics:

- Advanced SFTP V2 connections overview, 8
- Advanced SFTP V2 connection properties, 8

Advanced SFTP V2 connections overview

An Advanced SFTP V2 connection enables you to read data from and write data to SFTP servers. You can use an Advanced SFTP V2 connection to specify sources and targets in file ingestion tasks.

Create an Advanced SFTP V2 connection on the **Connections** page and associate it with a file ingestion task. Define the source properties to read from an SFTP server or define the target properties to write to an SFTP server.

Advanced SFTP V2 connection properties

When you set up an Advanced SFTP V2 connection, you must configure the connection properties.

The following table describes the Advanced SFTP V2 connection properties:

Connection property	Description
Connection Name	The name of the connection. The name is not case sensitive and must be unique within the domain. You can change this property after you create the connection. The name cannot exceed 128 characters, contain spaces, or contain the following special characters:~ ` ! $ % ^ & * ( ) - + = { [}] | \ : ; " ' < , > . ? /
Description	Optional. The description of the connection. The description cannot exceed 4,000 characters.
Type	Select the **Advanced SFTP V2** connection type.
Runtime Environment	The name of the runtime environment that contains the Secure Agent that you want to run the tasks.

Connection property	Description
Host	The host name or IP address of the server. The host name is not case sensitive and must be unique within the domain. The name cannot exceed 24 characters, contain alphabets (A to Z), digits (0 to 9), or contain the special characters period (.) and minus (-).
Port	The port number to use to connect to the server. Default is 21.
Username	User name to connect to the SFTP server.
Password	Password to connect to the SFTP server.
Folder Path	The directory to use after connecting to the server.
Timeout	The number of seconds to wait when attempting to connect to the server. A timeout occurs if the connection cannot be established in the specified amount of time. If left blank, the default value of 120 seconds is used.
Connection Retry Attempts	The number of times to connect to retry the SFTP connection if a connection cannot be established. This setting is used for both the initial connection and any reconnect attempts due to lost connections. If left blank, no retries will be attempted.
Connection Retry Interval	The number of seconds to wait between each connection retry attempt. For example, if you want to retry to connect up to 10 times with a five second delay between retries, then specify 10 for the Connection Retry Attempts and 5 for the Connection Retry Interval.
Private Key File	The name of the SSH private key file along with the path where the file is stored. Ensure that the file path is on the machine that hosts the Secure Agent. For example, `C:/SSH/my_keys/key.ppk`
Private Key Passphrase	Specify the passphrase to encrypt the SSH private key.
Use Curve Kex Algorithm	Enable additional key exchange algorithms such as curve, and keyed-hash algorithm such as, -hmac-sha2-512, and -hmac-sha2-256.
Bandwidth	Controls the maximum amount of network resources used for file transfers. The value is applicable for file uploads and downloads. Default is 0. 0 indicates that the bandwidth is not restricted.
Bandwidth Unit	The unit of the network bandwidth used for file transfer. You can choose one of the following units: - Kilobytes per second (KBps) - Megabytes per second (MBps)
Use File Integration Proxy Server	The connector connects to the SFTP server through the file integration proxy server. Verify that the following prerequisites are met: - You must have the File Integration Service license to use this option. - You must define a proxy server in File Servers. - If you don't have the File Integration Service proxy, you need to use the agent proxy through the proxy.ini file.

Connection property	Description
Proxy Server Host Name	Host name or IP address of the outgoing File Integration Service proxy server.
Proxy Server Port	Port number of the outgoing File Integration Service proxy server.

Note: Advanced SFTP V2 connector doesn't support NTLM proxy authentication.

CHAPTER 3

File transfer

You can send files to a remote server or receive files from a remote server, and get the job status through the REST API.

Use the following resources for file transfer:

- sendfiles. Use to send files to a remote server.
- receivefiles. Use to receive files from a remote server.
- job. Use to get the status of the supported file transfer jobs that are initiated using the sendfiles or receivefiles resource.

When you use these resources, note the following rules:

- Use JSON format.
- Use the following base URL:

  ```
  <serverUrl>/mftsaas/api/v1/<API name>
  ```

- Use the following request header format:

  ```
  <METHOD> <serverUrl>/<URI> HTTP/<HTTP version>
  Content-Type: application/json
  Accept: application/json
  IDS-SESSION-ID: <SessionId>
  ```

Note: You must have the appropriate connector license to send and receive files.

sendfiles

Use the sendfiles resource to transfer files to a remote server.

The following connection types use the sendfiles resource to transfer files to the remote server:

- AS2
- Advanced FTP V2
- Advanced FTPS V2
- Advanced SFTP V2

Before you construct a sendfiles request to transfer files, obtain the identifier of the connection that provides access to the server. To get the connection ID, you can send a GET request using the connection resource. The connection resource can return information for each of your organization's connections.

POST Request

To transfer files, include the connection ID in the following URI.

```
mftsaas/api/v1/sendfiles/<connection ID>
```

Include the following information in the request:

Field	Type	Required	Description
targetConnectionType	String	Yes	Connection type. The supported connection types are: - Advanced FTP V2 - Advanced FTPS V2 - Advanced SFTP V2 - AS2
srcDirectoryPath	String	Yes	Directory path from where files are transferred.
tgtDirectoryPath	String	-	Directory path to where files are transferred. This option is available only for Advanced FTP V2, Advanced FTPS V2, and Advanced SFTP V2 connection types. Default is '/'.
srcFilePattern	String	Yes	Source file name pattern. Specify a file name pattern to identify which files to send. You can use the regular expression type.
deleteSourceFiles	String	-	Whether to delete source files after a successful POST request. Use one of the following values: - true. Delete source files. - false. Save source files. Default is true.

For example, to transfer the files that begin with "file_" that are located in the workspace directory, you might use the following request:

```
POST <serverUrl>/mftsaas/api/v1/sendfiles/<connection ID>
Accept:application/json
IDS-SESSION-ID: <icSessionId or INFA-SESSION-ID>
{
    "targetConnectionType":   "as2",
    "srcDirectoryPath":  "C:\\server\\userdata\\workspace",
    "srcFilePattern":  "file_*"
}
```

For example, to transfer the files with ".txt" pattern, you might use the following request:

```
POST <serverUrl>/mftsaas/api/v1/sendfiles/<connection ID>
Accept:application/json
IDS-SESSION-ID: <icSessionId or INFA-SESSION-ID>
{
    "targetConnectionType":   "Advanced SFTP V2",
    "srcDirectoryPath":  "C:\\docstoreLocal2",
    "tgtDirectoryPath":  "C:\\server\\userdata\\workspace",
    "srcFilePattern":  ".*txt"

}
```

POST Response

If successful, Informatica Intelligent Cloud Services returns the run ID for the job. Use the run ID to monitor the job status.

The following example shows a successful response:

```
{
    "projectId": 0,
    "timeTaken": 0,
    "queuePriority": 0,
    "runPriority": 0,
    "runMode": "UNKNOWN",
    "submitSourceId": -1,
    "correlationId": "OWMxOTc2YjktNzI4YS00Mm",
    "runModeInteractive": false,
    "runModeBatch": false,
    "runModeDebug": false,
    "runModeUnknown": true,
    "formattedTimeTaken": "0.00",
    "id": 1000000000384,
    "runId": 385
}
```

If unsuccessful, the response includes a reason for the failure.

receivefiles

Use the receivefiles resource to get files from a remote server.

The following connection types use the receivefiles resource to transfer files to the remote server:

- Advanced FTP V2
- Advanced FTPS V2
- Advanced SFTP V2

Before you construct a receivefiles request to receive files, obtain the identifier of the connection that provides access to the server. To get the connection ID, you can send a GET request using the connection resource. The connection resource can return information for each of your organization's connections.

POST Request

To receive files, include the connection ID in the following URI.

```
mftsaas/api/v1/receivefiles/<connection ID>
```

Include the following information in the request:

Field	Type	Required	Description
sourceConnectionType	String	Yes	Connection type. The supported source connection types are: - Advanced FTP V2 - Advanced FTPS V2 - Advanced SFTP V2
tgtDirectoryPath	String	Yes	Directory path to where files are transferred.
srcDirectoryPath	String	-	Directory path from where files are transferred. Default is '/'.
srcFilePattern	String	Yes	Source file name pattern. Specify a file name pattern to identify which files to send. You can use the regular expression type.

Field	Type	Required	Description
processFilesRecursively	String	-	Whether to process files from all sub-folders within the base directory. Default is false.
afterFilePickupAction	String	-	Determines what to do with source files after the files transfer. The following options are available: - Keep the files in the source directory. - Delete the files from the source directory. - Rename the files in the source directory. You must specify a file name suffix that adds to the file name when renaming the files. - Archive the files to a different location. You must specify an archive directory. Default is KEEP.
skipDuplicateFiles	String	-	Do not transfer duplicate files. If files with the same name and creation date were transferred, the task does not transfer them again, and the files are marked as duplicate in the job log. If this option is not selected the task transfers all files. Default is false.
whenFileExists	String	-	Determines what to do with a file if a flat file with the same name exists in the target directory. The following options are available: - rename - overwrite - skip - stop - error Default is rename.

For example, to transfer the files with ".txt" pattern, and rename the file if a flat file with same name exists in the target directory, you might use the following request:

```
POST <serverUrl>/mftsaas/api/v1/sendfiles/<connection ID>
Accept:application/json
IDS-SESSION-ID: <icSessionId or INFA-SESSION-ID>
{
    "sourceConnectionType": "Advanced SFTP V2",
    "tgtDirectoryPath": "C:\\docstoreLocal2",
    "srcDirectoryPath": "C:\\server\\userdata\\workspace",
    "srcFilePattern": ".*txt",
    "processFilesRecursively": false,
    "afterFilePickupAction": "KEEP",
    "skipDuplicateFiles": false,
    "whenFileExists": "rename",
}
```

POST Response

If successful, Informatica Intelligent Cloud Services returns the run ID for the job. Use the run ID to monitor the job status.

The following example shows a successful response:

```
{
    "projectId": 0,
    "timeTaken": 0,
    "queuePriority": 0,
    "runPriority": 0,
    "runMode": "UNKNOWN",
    "submitSourceId": -1,
    "correlationId": "OWMxOTc2YjktNzI4YS00Mm",
    "runModeInteractive": false,
```

```
    "runModeBatch": false,
    "runModeDebug": false,
    "runModeUnknown": true,
    "formattedTimeTaken": "0.00",
    "id": 1000000000384,
    "runId": 385
}
```

If unsuccessful, the response includes a reason for the failure.

job

When you use the REST API to send or receive files, use the REST API version 1 job resource to get the status of the file transfer.

Do not use the platform REST API version 2 job resource to get the status of an file transfer job.

Get Request

When you send the request for status of an file transfer job, include the run ID returned in the sendfiles POST response. Use the following URI:

```
mftsaas/api/v1/job/<runID>/status
```

Get Response

If successful, Data Integration returns the job status.

If unsuccessful, the response includes a reason for the failure.

Get Response Example

If the request is successful, you might receive a response similar to the following example:

```
{
    "jobStatus": "SUCCESS"
}
```

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