SFTP Connector Guide

Note: Publisher - Professional Services, Saviynt

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Disclaimer

The integration was either created by Saviynt or by Saviynt community users and verified by Saviynt. The integration is available "as is" and fall under standard connectors support for REST, SOAP, JDBC, LDAP, PowerShell, Jar and Saviynt Connector Framework.

Note: It is highly recommended to use OOTB EIC features available for file import/export.

- 1. Files can be imported to EIC by using API's i.e. schema import and data import
- 2. All reports are available through API's i.e. Runtime analytics

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Preface

This guide describes the integration between Saviynt Enterprise Identity Cloud (EIC) and SFTP location for transferring the files.

Audience

This guide is intended for administrators and target application integration teams responsible for implementing a secure integration service with SFTP based on SFTP file location.

Introduction

In Saviynt EIC solution there is a need for periodic and automated transfer of files into and out of Saviynt EIC solution based on customer requirements. For example, schema-based import jobs for different objects expect the data files to be available in Datafiles directory and schema files to be available in SAV directory. And sometimes data needs to be sent from Saviynt EIC solution to customer target systems for further consumption and processing by the target applications. To address these requirements Saviynt Professional Services COE team has developed a File Transfer Utility (aka SFTP Connector based on JarConnector) to automate transfer of files between customer SFTP location and Saviynt environment.

Note: This guide provides information about using the File Transfer Utility for only transferring files in to and out of EIC. This utility does not import the data in the files into EIC tables as such.

Supported Features

The SFTP integration supports the following features:

File Transfer	
File Import	File Export
Support transfer of files (.csv and .sav files) from a customer SFTP location to Saviynt EIC platform	Support export of files (.csv, .xls, .xlsx, .txt and .sav files) from Saviynt EIC solution to customer SFTP location.

Supported Software Versions

Software	Version
EIC	v5.5 sp3.x, v2020.x and v2021.x

Integration Architecture

Utility is a JarConnector type connector for transferring data using SFTP protocol .

- The SFTP Utility (JarConnector) is deployed as an extension jar in EIC
- Input params are stored in connection object in the ImportAccountsJSON
- It supports supports transfer of .csv and .sav files into EIC to Datafiles and SAV directories respectively under Admin->Settings->File Directory
- It supports transfer of .txt, .csv, .xls, .xlsx files from Reports directory of EIC to a SFTP location

The following diagram depicts the high-level architecture:



Setting Up the Integration

Prerequisites

Setting up the SFTP connector on your tenant

- 1. Download the utility jar to your local machine (Download SFTP Jar Connector source code)
- 2. Login to EIC using the Admin credentials.
- 3. Go to admin page

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				····	Re	C Home	SOD	Certifications	
		Hi admin				(≈)	(i)	<u> </u>	
		rou are logged in as , admin				Intelligence	Control	Admin	
						-74	Center		
						[j]			
		My Pending Access	Pending Approvals	assword expires in (days)		Design			
		0	0				_		
					R	equest Home is the	starting point o	f your experien	ce.
					Fro	m this page you car id roles, manage yo	initiate requests ir access, and re	to new applica view recent acti	tions vity
		gọ	0	A		and	l pending actions	i.	
		Request New Access	Request History	Pending Approvals			Help Guide		
		Request for new access and / or modify existing access	View all requests raised by you for yourself or others	Approve, reject or redirect requests from others					
4.	Go to Se	ttings and File Directory							
	학학 Global Co	onfiguration							u
	Settings	~							
	SMTP Co	nfiguration							
	Email Ten	nplates							
	Campaig	n Configuration			945				21
	Analytics	s Configuration		_					
	Dashboa	rd Configuration	Running Jobs	Total Jo	bbs Executed (14 days)		Total Jobs F	ailed davs)	
	Configura	ation Files	Job Type						
	IDP Confi	iguration	Select Job Type	Apply Filter Cle	ar Filter	Pause all jobs	+Add New Job	Actions	~
	0Auth Se	ettings							
	Webservi	ce Auth Configuration							٩
	External	Setup		LAST RUN STATUS	NEXT RUN	JOB SCHEDULE		ACTION	
	File Direc	tory	Invoke Extension JAR Job (ExternalJa	rJob) 11-Apr-2022 15:03:29 Succes	01-Jan-2099 15:45:0	0 At 10:15 AM (UTC), only in 2099		
	User Inte	rface Branding Configuration					,		
	API		MicroserviceJob	11-Apr-2022 05:30:00 Succes	s 12-Apr-2022 05:30:0	0 At 12:00 AM (UT	;)	► C 🖻	
5.	Go to ex t	ternalJar and upload the	e jar file by clicking on Up	oad New File					
	File Direct	ory							
	Views		File Name				e	Upload New F	ile
	externalJa								
	SAV		Show 15 entries						Q
	Datafiles		FILE NAME		ACTIONS				
	Connector	Files	No data available in table						
	Success								
	Fail		Showing 0 to 0 of 0 entries					< > Ne	xt

- Select the downloaded jar file and deploy it by clicking on Upload button
 After deploying the jar file restart the application (Admin -> Admin Functions -> Application Restart) Note: The input parameters to the connector are driven via a JarConnector type of Connection in Saviynt EIC Solution from the UI.

Add/Update	istory	
Add/Update C	onnection	
Connection Name		
Connection Type		
JarConnector		Ŧ

8. Create a Custom Query Job or Execute Extension Queries type of job trigger

Job Control Panel	reate New Trigger ×		
	Job Name* UpdateJarConnectorDetail	Job Type* Execute Extension Queries **DEPREC*	108
Total Jobs	Multiple queries can be seperated by : update EXTERNALCONNECTIONTYPE IMPORTPARAMSMAP='jobtype:2, imp	set orttype:1.importtypeoptions:accounts' where	Total Jobs Failed (14 days)
Select Select Select Select	Job Trigger will be scheduled in U	JTC timezone	Pause all jobs +Add New Job Action
Show 25 • entries	Minutes Every Hourly	Minute(s) Minute(s)	jar
□ JOB NAME	Daily	y LADI NUN DIALUD HEAT	RUN 🚽 JOB SCHEDULE ACTION

- 9. Use the following query in the job trigger
 - update EXTERNALCONNECTIONTYPE set IMPORTPARAMSMAP='jobtype:2,importtype:1,importtypeoptions:accounts' where connectiontype='JarConnector';
- 10. Click on Save to save the job trigger and execute the newly created Custom Query Job (This is a one-time activity).

Establish a network connectivity with SFTP by opening a firewall port.

If the SFTP location that you are trying to connect is behind the firewall then make sure that the firewall rules to allow connectivity are in place from your SC 2.0 servers.

Identify the authentication method

The connector supports below authentication methods for connecting to SFTP location:

- Username and Password : For this the username and password values are stored in the ConnectionJSON of the connection. The ConnectionJSON is encrypted automatically by the Saviynt EIC Solution when the connection is saved. (Please note that once the ConnectionJSON is encrypted, it cannot be decrypted.)
- Private key file (.pem file): For this the .pem file needs to be saved as .csv file and uploaded to the Datafiles directory of Saviynt EIC from UI. Once the key file is uploaded to Datafiles directory as .csv file and a job is triggered to execute this file, the connector automatically takes the file from the Datafiles directory, converts it into .pem file and transfers it to a secure location within Saviynt EIC which is not accessible by users. This way .pem file is secured from unauthorized access by users. If you want to change the key file, then upload the new .pem file to Datafiles directory which will be picked up by the next job run using this connector. *Please refer to APPENDIX section below in this document on how to deploy a private key file (.pem file)*

Understanding the Configuration Parameters

First, we need to create a connection of type JarConnector. In the connection we need to configure configure ConnectionJSON and ImportAccountJSON

Connection Parameters

The connector uses the following parameters for connecting to SFTP location

Parameter	Description	Example Configuration	Mandatory?
Connection Name	Specify the name to identify the connection.	-	Yes
Connection Description	Specify the description for the connection.	-	No

III A

ConnectionJSON	Specify this parameter to create a connection.	Use the following format to connect to the SFTP :	Yes
		{	
		"SFTPHOST":	
		"111.22.02.56",	
		"SFTPPORT":	
		"22",	
		"SFTPUSER":	
		"sftpuser",	
		"SFTPPASS":	
		"P7686kkjhd"	
		}	
		,	

Description of the attributes used in the ConnectionJSON

Property Name	Description	Note
SFTPHOST	IP address or the hostname of the SFTP server on the client side	The names of the properties indicated here may vary.
SFTPPORT	Port number to connect to the SFTP server on the client side	being referred in the ImportAccountsJSON as well.
SFTPUSER	Username for the SFTP user to login to the SFTP server	Hence, the same needs to be updated into the
SFTPPASS	Password for the SFTP user to login to the SFTP server (Note – Password not required if private key type of authentication is being used. Hence this property needs to be kept blank)	ImportAccountsJSON as well.

Please note that once you save the connection, the ConnectionJSON content is encrypted and saved in database. Once encrypted, it cannot be decrypted. So, if you want to change anything in the ConnectionJSON in future, you will have to replace the entire ConnectionJSON in the UI by editing the connection, you will not be able to change a specific line in the ConnectionJSON)

Import Parameters (for transferring the files)

The connector uses the following parameters for transferring files

Parameter	Description	Recommended Configuration	
AccountEntImport JSON	Specify this parameter to import the accounts and entitlements	Use the following format to import accounts and entitlements using the SFTP: { "fullyQualifiedClassName": "com.saviynt.connector. SFTPConnector. FileTransferUtilitywithargs", "methodName": "saviyntFileTransfer_SFTP",	Yes

```
"arguments": {
                "SFTPHOST":
"${connectionJSON.SFTPHOST}",
                "SFTPPORT":
"${connectionJSON.SFTPPORT}",
                "SFTPUSER":
"${connectionJSON.SFTPUSER}",
                "SFTPPASS":
"${connectionJSON.SFTPPASS}",
                "ACTION":
"download",
"SFTP_DIRECTORY":"/upload/",
"SAVIYNT_DIRECTORY":"
/saviynt_shared/saviynt/Import
/",
"FILE_NAME_LIST": "AWS_TEST.
csv",
"SFTP_LOGFILE_DIRECTORY":"
/saviynt_shared/saviynt/Import
/Success/",
"DELETE_SOURCE_FILE_AFTER_DOWNL
OAD": "no",
"SFTP_KEY_PATH":"
/saviynt_shared/saviynt/Import
/Datafiles/",
"SFTP_KEYFILE_NAME":"sftp_key.
csv",
                "SFTP_ CERT
_DEFAULT_PATH":"/saviynt_shared
/saviynt/Import/Datafiles/",
"LOG_FILE_AGE":"2"
        }
}
```

Description of the attributes used in the ImportAccountsJSON

Property Name	Description	Note	
fullyQualifiedClassName	This is the class name which is invo the utility and the value must alway "com.saviynt.connector.SFTPConn FileTransferUtilitywithargs".	oked in The key and the value for this property must NOT be changed hector.	
methodName	Method name in the utility to be inv performing download and upload and and the value must always be "saviyntFileTransfer_SFTP".	roked for The key and the value for this property must NOT be changed	
arguments	These are the arguments which are required by the utility to be execute value for this property will always b JSON.	e The key for this property must NOT be ed. The changed be a	
SFTPHOST	This property should point to the pr which defines the SFTP host/serve ConnectionJSON. 'connectionJSON' is the object whice to the ConnectionJSON and any at from the ConnectionJSON can be accessed as the following \${connectionJSON.< <pre>propertyNam</pre>	The key for this property must NOT be changed. The value for this must point to the property in ConnectionJSON which holds the value of the SFTP server on cli side.	to client
SFTPPORT	This property should point to the pr which defines the SFTP host/serve the ConnectionJSON. 'connectionJSON' is the object which to the ConnectionJSON and any at from the ConnectionJSON can be accessed as the following \${connectionJSON.< <pre>propertyNam</pre>	The key for this property must NOT be changed. The value for this must point to the property in ConnectionJSON which holds the value of the SFTP server Port of client side.	to t on
SFTPUSER	This property should point to the pr which defines the SFTP host/serve username in the ConnectionJSON. connectionJSON is the object which to the ConnectionJSON and any at from the ConnectionJSON can be accessed as the following \${connectionJSON.< <pre>propertyNam</pre>	The key for this property must NOT be changed. The value for this must point to the property in ConnectionJSON which holds the value of the SFTP server username on client side.	to
SFTPPASS	This property should point to the pr which defines the SFTP host/serve password in the ConnectionJSON. connectionJSON is the object which to the ConnectionJSON and any at from the ConnectionJSON can be accessed as the following \${connectionJSON.< <pre>propertyNam</pre>	The key for this property must NOT be changed. The value for this must point to the property in ConnectionJSON which holds the value of the SFTP server user's password on client side.	to r's
Property Name	Description	n	
ACTION			
	Use 'D from S directo	DOWNLOAD as the value if you intend to transfer files FTP location to Saviynt EIC's Datafiles or SAV pries	S

Use 'UPLOAD as the value if you intend to transfer files from /Reports directory of Saviynt EIC to SFTP location

SFTP_DIRECTORY	Directory path on the SFTP server to/from which files need to be transferred. This path is given by customer's team who provides the SFTP location details. This path is not given by Saviynt team.
	Note: Please ensure that the directory path given for this always ends with a forward slash (/). Please see below example
	e.g.: /upload/
SAVIYNT_DIRECTORY	This is the directory path on the Saviynt EIC solution from/to which files need to be transferred. The path value differs on the value of the ACTION property:
	 When ACTION property is DOWNLOAD, provide Saviynt file system directory path until the Import directory (just one level above Datafiles directory). e.g:/saviynt_shared/saviynt/Import/ When ACTION property is UPLOAD, provide Saviynt file system directory path until the Reports directory
	e.g:/saviynt_shared/saviynt/Reports/
	Note:
	 Please ensure that the directory path given for this always ends with a forward slash (/). Please see below example:
	/saviynt_shared/saviynt/Import/
	/saviynt_shared/saviynt/Reports/
	 Please note that this directory path value differs based on the version of Saviynt EIC solution the customer is using. For example, for v2021 version of EIC, the path will be /saviynt_sh ared/saviynt/Import/ (for DOWNLOAD) and /saviynt_shared /saviynt/Reports/ (for UPLOAD)
	And for v5.5 sp3.x and v2020.x versions of EIC, the path will be /opt /sharedappdrive/saviynt/Import/ (for DOWNLOAD) and /opt /sharedappdrive/saviynt/Reports/ (for UPLOAD)
	• The above only are examples. Please open a Fresh Desk ticket with Saviynt support to get the exact path for the Saviynt EIC version the customer is using
FILE_NAME_LIST	Comma separated values of the file names that you intend to transfer. Utility supports transferring multiple files at a time. Below are the file types that are supported from transfer:
	 For DOWNLOAD action only .csv and .sav file types are supported by the utility For UPLOAD action only .csv, .txt, .xls and .xlsx files are supported by the utility
	Note:
	 Please include the file extension in the file name Do not include space before or after comma in the comma separated list. See below example
	e.g.: Employee_users.csv, Schema_USERS.sav

FILE_NAME_REGEX	 If you want to transfer files matching a specific pattern, please use this property to capture the regex (regular expression) for the file name pattern. The regex should comply with standard regex syntax. e.g.: =^.*Test?[A-Za-z0-9]* Below are the file types that are supported from transfer: For DOWNLOAD action only .csv and .sav file types are supported by the utility For UPLOAD action only .csv, .txt, .xls and .xlsx files are supported by the utility Note: Do NOT include file extensions in the regular expression. Just mention the regex for name of the file In case of UPLOAD action, if multiple files are found matching the regular expression in the /Reports directory. Only the file with latest timestamp will be transferred from Saviynt EIC to SFTP location In case of REGEX, please add four slash(\\\) for every slash which is present in the REGEX, e.g., when using \d in the
	expression, it should be added to the REGEX as <u>\\\\\d</u> .
FILE_EXTENSION	 This is an optional property. By design below are the file types that are supported for transfer by the utility: For DOWNLOAD action only .csv and .sav file types are supported by the utility For UPLOAD action only .csv, .txt, .xls and .xlsx files are supported by the utility If you want to restrict the utility to transfer only specific file types from the above file types, then you can mention the comma separated values of the extensions as shown in the below example. Please note that if you provide any file extensions that are outside of the supported file extensions above, they will be ignored e.g: .csv,.txt
SFTP_KEY_PATH	This property is used when a private key file (.pem file) based authentication is used for connecting to SFTP server. Utility will first check if this property and SFTP_KEYFILE_NAME properties are not blank. If so, it will use private key file (.pem file) based authentication else the utility will check for SFTPUSER and SFTPPASS properties and uses username /password based authentication By design the private key (.pem file) needs to be uploaded to Datafiles directory from Saviynt EIC UI. Please refer to section 3.2.5 on how to upload the private key file. Use this property to capture the Saviynt file system directory path where the private key file for SFTP authentication is stored, which is the path to the Datafiles directory. Please note that this path value differs based on the version of Saviynt EIC solution the customer is using. For example, for v2021 version of EIC, the path will be /saviynt_shared/saviynt/Import /Datafiles/ and for v5.5 sp3.x and v2020.x versions of EIC, the path will be /opt/sharedappdrive/saviynt/Import/Datafiles/
SFTP_KEYFILE_NAME	Provide the name of the private key file that was uploaded to Datafiles Directory e.g.: sftp_key.csv
SFTP CERT DEFAULT PATH	This is the folder where the utility will look for the key file. Please
	keep the path until Datafiles directory e.g.: /saviynt_shared/saviynt/Import/Datafiles/

SFTP_LOGFILE_DIRECTORY	This is an optional parameter
	By default, the log statements of the utility are written to Saviynt debug logs which are visible under <i>Application Logs</i> in UI. Additionally, the utility can be configured to write the log file statements to a custom log file under /Datafiles/Success so that the log file can be viewed from the UI under Success directory
	e.g.: /saviynt_shared/saviynt/Import/
	Note:
	 Please ensure that the directory path given for this always ends with a forward slash (/). Please see below example:
	/saviynt_shared/saviynt/Import/
	 Please note that this directory path value differs based on the version of Saviynt EIC solution the customer is using. For example, for v2021 version of EIC, the path will be /saviynt_sh ared/saviynt/Import/ and for v5.5 sp3.x and v2020.x versions of EIC, the path will be /opt/sharedappdrive/saviynt/Import/
LOG_FILE_AGE	Number of days to retain the custom log file. Please note that max allowed days are 30 and default days are 7
	e.g. 5
DELETE_SOURCE_FILE_AFTER_DOWNLOAD	Allowed values: Yes or No
	If Yes, utility will delete the source file from SFTP location after successfully downloading the file on to Saviynt side
	If No, utility will NOT delete the source file from SFTP location after successfully downloading the file on to Saviynt side
	This is applicable only for DOWNLOAD action

Creating a Connection

First, we need to create a connection of type JarConnector. In the connectionJSON we need to configure configure ConnectionJSON and ImportAccountJSON. Follow the below steps for the configuration:

- 1. Login to EIC as an admin user with required privileges
- 2. Go to admin page

3. = SAVIYNT Home	A III
Hi Amit Krishnajit	Home SOD Certifications
You are logged in as : amitk	(종) 네 여 Intelligence Control Admin Center
My Pending Access Pending Approvals 0 1 Password expires in (days)	لی الک
	Request Home is the starting point of your experience. From this page you can initiate requests to new applications and roles, manage your access, and review
	recent activity and pending actions.

	Q Search							
	Identity Repository							
	Users	Connection List						* Action:
	Accounts	Show 15 * entries						
	Entitlements	CONNECTION NAME		YPE 👙 CONNECTION DESCRIPTIO	N		CONNECTION STATUS	ACTIO
	Roles	Privileged_Application	REST	Privileged_Application		Enable	Successful	a
	User Groups							
	Security System	DB-MYSQL-COE-CONNECTION	DB	MySQL COE Server Conecti	ion (100.65.85.53)	Enable	Successful	Û
~	Connections		1 . 10	A				
э.		ction						
	Connections							
	Connection List	Connection List					% Ac	ctions ~
	Connection Type List	Show 15 * entries					Create Connect	tion
						1. OTIVIO 1. ODIU	Create Connect	tion Type
		CUNNECTION NAME	© CONNECTION TYPE	CONNECTION DESCRIPTION		¢ STATUS ¢ CONNEL	Export Connection	on(s)
		Privileged_Application	REST	Privileged_Application		Enable Success	iful	Ê
		DB-MYSQL-COE-CONNECTION	DB	MySQL COE Server Conection (10	0.65.85.53)	Enable Success	sful	ê
		AzureADTest	AzureAD	AzureADTest		Enable Success	.ful	Ê
								A
	Connection List	Add/Update History						
	Connection Type List	Add/Update Connection						
		Connection Name *			Connection Description			
		Connection Type						
		AD		٨	✓ Save Template			
		jar			Default SAV Role 🖲			
		JarConnector						
7.	Provide a Connection Name, Con	inectionJSON and Im	portAccounts	SJSON and clicl	k on Save connectior	٦	=	A
	Connection Unt	Add/Update History						
	Connection Type List	Add/Update Connection						
					Constanting Researching			
		SFTPConnection			Connection Description			
		Connection Type						
		3arConnector			🐨 Save Template			
		Email Template			Default SAV Role Ø			
		Select		•				
		SSL Certificate			+ Add Contribution			
		Constantial March Constantiant						
		failed						

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ableAccount350N
portAccounts200 ('tigh/20ainfiel/LassName'' 'rom.saviynt.connactor/SFTPConnactor/FielfransferUbilitywithargs'. 'TestPanettin', 'TestPanet
bortAccess300N
✓ Save Connection UHelp

Creating a Security System and Endpoint

A security system and endpoint need to be created so that the Jar connection can be mapped to it.

- Login to EIC as an admin user with required privileges
 Go to admin page

						••• A
				Home		
Hi Amit Krishnajit You are logged in as : amitk				ntelligence	il) Control Center	Admin
My Pending Access	Pending Approvals	Password expires in (days)	>	Design	the starting poin	t of your experience
87		0		From this pag applications and r recent a	e you can initiate roles, manage you activity and pendi	requests to new Ir access, and review ng actions.
SAVIYNT Admin						III A
Lientity Repository						
	Security System List					∳ Actions ~
Users Accounts	Show 25 * entries					Actions →
Users Accounts Entitlements	Show 25 • entries	▲ CREATE TASK ACTION 👙	WORKFLOW		STATUS 🔶 DEFA	
Users Accounts Entitlements Roles	Show 25 • entries	▲ CREATE TASK ACTION ♦	WORKFLOW		STATUS 🔶 DEFA	<pre></pre>
Users Accounts Entitlements Roles User Groups	Security System List Show 25 entries SYSTEM NAME Active Directory Amingoond	CREATE TASK ACTION	WORKFLOW		STATUS & DEFA Enable faise	f Actions ~ Advanced → ULT SYSTEM AUTOM true true
Users Accounts Entitlements Roles User Groups Security System	Security System List Show 25 entries SYSTEM NAME Active Directory Amigopod	CREATE TASK ACTION	WORKFLOW Add :-GLSTESTING2 Remove :-GLSTESTING2		STATUS 🔶 DEFA Enable faise Enable true	Actions ~ Q Advanced → ULT SYSTEM ♦ AUTOM true true
Users Accounts Entitlements Roles User Groups Security System Connections	Security System List Show 25 • entries SYSTEM NAME Active Directory Amigopod Analytica System	CREATE TASK ACTION \$	WORKFLOW Add :-GLSTESTING2 Remove :-GLSTESTING2 Add :-AppRole_E0Approval Remove :-AppRole_E0Approval		STATUS 🖗 DEFA Enable faise Enable true Enable faise	
Users Accounts Entitlements Roles User Groups Security System Connections	Security System List Show 25 entries SYSTEM NAME Active Directory Amigopod Analytica System	CREATE TASK ACTION 3 EntitlementsOnly	WORKFLOW Add :-GLSTESTING2 Remove :-GLSTESTING2 Add :-AppRole_E0Approval Remove :-AppRole_E0Approval		STATUS 🔶 DEFA Enable faise Enable true Enable faise	f Actions ~ Q. Advanced → ULT SYSTEM autom true true false

.... A

4. Click on Actions -> Create Security System

Security System List								
Security Systems	Security System List							∳ Actions ~
Endpoints	Show 25 * entries							Create Security System
	SYSTEM NAME	CREATE TASK ACTION	WORKFLOW	♦ STATUS ♦	DEFAULT SYSTEM 👙	AUTOMATED PROVISIONING	PORT & CONNECTION	
	Active Directory			Enable	false	true		
	Amigopod	EntitlementsOnly	Add :-GLSTESTING2 Remove :-GLSTESTING2	Enable	true	true		
	Analytica System		Add :-AppRole_EOApproval Remove :-AppRole_EOApproval	Enable	false	false		
	1010000		444. A004.4-4	Fachia	6-1	1	10100	10

5. Input the System Name, display name, select the Connection and Provisioning Connection as the JarConnector connection created above.

SAVIYNT Admin		
SFTPSystem		
Security System Detail Endpoints		
System Name		Display Name
SFTPSystem		SFTP System
Create Task Action		Port
	Ŧ	Port
Connection		Provisioning Connection
SFTPConnection	Ŧ	SFTPConnection
Service Desk Connection		Password Management Connection
Select Connection	Ŧ	Select Connection
External Risk Connection		Provisioning Comments
+ Add		System Name

6. Select an Auto Approve workflow in the Access Add Workflow and Access Remove Workflow in the Security System (Refer to APPENDIX section on how to create an Auto Approve Workflow)

SETPSystem Security System Datal Indpoints System Name Diplay Name SFTPSystem Diplay Name SFTPSystem SFTP System Consection Port SFTPConnection Port SFTPConnection SFTPConnection Service Desk Connection Postioning Connection Select Connection Select Connection Sele		
Edpoints Elpoints System Name Elpoints SFIPSystem SFIPSystem Create Task Action Port Create Task Action Port Connection Porticipation SFIPConnection Porticipation Service Desk Connection Porticipation Service Desk Connection Porticipation Select Connection Select Connection Select Connection Select Connection Policy Rule Porticipation Policy Rule System Name Policy Rule System Name Select Connection System Name	SFTPSystem	
System Name Diplay Name SFTPSystem SFTP System Create Task Action Port Connection Port SFTPConnection SFTPConnection Service Desk Connection SFTPConnection Service Desk Connection SFTPConnection Service Desk Connection Select Connection Select Connection Select Connection Fetnam Risk Connection Select Connection Policy Rule Provisioning Connection Select System Name Policy Rule System Name Select Connection System Name Select Connection System Name Access Add Workflow Select Sel	Security System Detail Endpoints	
SFTPSystem SFTP System Create Task Action Port Connection Port SFTPConnection Provisioning Connection SFTPConnection SFTPConnection Service Desk Connection SFTPConnection Select Connection Select Connection Select Connection Select Connection Fxternal Risk Connection Select Connection Fxternal Risk Connection Select Connection Policy Rule System Name Select Select Connection Access Add Workflow Access Remove Workflow AutoApprove VoltApprove	System Name	Display Name
Create Task Action Port Image: Create Task Action Port Connection Provisioning Connection Service Desk Connection StPPConnection Service Desk Connection Posword Management Connection Select Connection Select Connection Feternal Risk Connection Select Connection Image: Provisioning Connection Select Connection Image: Provisioning Comments Select Connection Image: Provisioning Comments System Name Policy Rule System Name Select Select Se	SFTPSystem	SFTP System
Image: state	Create Task Action	Port
Connection Provisioning Connection SFTPConnection SFTPConnection Select Connection Password Management Connection Select Connection Select Connection External Risk Connection Select Connection + Add Provisioning Comments Select Quest Select Connection Policy Rule Select Connection Select Add workflow AttoApprove	v	Port
SFTPConnection SFTPConnection Password Management Connection Select Connection External Risk Connection Povisioning Comments System Name Policy Rule Select Select Add Access Add Workflow AutoApprove AutoApprove 	Connection	Provisioning Connection
Service Desk Connection Password Management Connection Select Connection Select Connection External Risk Connection Provisioning Comments + Add System Name Policy Rule Select Select * Access Add Workflow Access Remove Workflow AutoApprove *	SFTPConnection *	SFTPConnection
Select Connection * Select Connection External Risk Connection Provisioning Comments + Add System Name Policy Rule * Select Add Workflow * Access Add Workflow * AutoApprove *	Service Desk Connection	Password Management Connection
External Risk Connection Provisioning Comments + Add System Name Policy Rule * Select * Access Add Workflow * AutoApprove *	Select Connection *	Select Connection
+ Add System Name Policy Rule * Select * Access Add Workflow * Access Remove Workflow Access Remove Workflow AutoApprove *	External Risk Connection	Provisioning Comments
Policy Rule Select * Access Add Workflow * AutoApprove * AutoApprove *	+ Add	System Name
Select * Access Add Workflow Access Remove Workflow AutoApprove *	Policy Rule	
Access Add Workflow Access Remove Workflow AutoApprove AutoApprove AutoApprove	Select *	
AutoApprove * AutoApprove	Access Add Workflow	Access Remove Workflow
	AutoApprove *	AutoApprove

7. After the Security System is created, go to Identity Repository -> Security System

8. Go to Endpoints section

III A

										A
Security System List										
Security Systems	Security System List							۲ ۹	* Actions	√ -)
	SYSTEM NAME	CREATE TASK ACTION	WORKFLOW	∳ STATUS ¢	DEFAULT SYSTEM	AUTOMATED PROVISIONING	PORT & CONNECTION		¢	PR
	Active Directory			Enable	false	true				
	Amigopod	Entitlements0nly	Add :-GLSTESTING2 Remove :-GLSTESTING2	Enable	true	true				
	Analytica System		Add :-AppRole_E0Approval Remove :-AppRole_E0Approval	Enable	false	false				
	AS400SS		Add :-AOBAutoApproveWF Remove :-AOBAutoApproveWF	Enable	false	true	AS400			AS

9. Click on Actions -> Create Endpoint

				III A
Security System List				
Security Systems	Endpoint List			∮ Actions ∽
Endpoints	Show 15 * entries			Create Endpoint
	ENDPOINT NAME	A DESCRIPTION	SYSTEM NAME	➡ EXPORT ♥
	Amigopod		Amigopod	Enabled

10. Provide the Endpoint name, display name and select the Security system which was created in the previous step

	(A)
Create New Endpoint	
Endpoint Details Other Attributes	
Endpoint Name *	Display Name *
SFTPEndpoint	SFTP Endpoint
Security System	Description
SFTPSystem *	
Owner Type	Owner
Select	l
Resource Owner Type	Resource Owner
Select	l

11. Click on Create button to create the endpoint

Using the SFTP File Transfer Utility for Transferring the files

Once the deployment and configuration steps mentioned above are complete, perform the transfer of files by following the below steps:

- 1. Login to EIC as an admin user with required privileges
- 2. Go to admin page



3. Go to Job Control Panel

=	SAVIYNT Admin					
	Search					
	Identity Repository	~				
0	Policies	~		0	l	950
Ŷ¢Ŷ	Global Configuration		Running Jobs		Total Jobs Executed	Total
\bigcirc	Settings	~	_		(14 days)	
÷	Sav Roles		Job Type Select Job Type	 Apply Filter 	Clear Filter	Pause all jobs +Add
01	Job Control Panel					
ŝ	Workflows	~				
ń	Admin Function	~	RY JOB TYPE	🚔 LAST RUN	STATUS NEXT RUN	JOB SCHEDULE
ō	Application Onboarding List		Application Data Import (Single Threaded)	20-Apr-2022 09:44:27	Success 01-Jan-2099 1	15:45:00 At 10:15 AM (UTC), only in
?	Questionnaire					

4. Click on Add New Job button on the screen

5. It will open a create new trigger pop-up. Fill in the details as shown below.

Parameter	Value	Notes
Job Name	A meaning ful job name of your choice (e.g SFTPFileTransfer)	
Job Type	Application Data Import (Single Threaded)	Use the value as-is
System	e.g: SFTP System	Select from the dropdown the Security System where the Jar Connection was mapped to.
External Connection	e.g: SFTPConnection	This will auto-populate on selection of the System. The value would be the name of the Jar Connection which was created.
Job Type	Full Import	Select the value from the dropdown
Import Type	Accounts	Select the value from the dropdown

Job Name*		Job Type*	
SFTPSystem		Application Data Import (Single Threa	٣
System *		External Connection *	
SFTP System	Ŧ	SFTPConnection	Ŧ
Job Type *		Import Type *	
Full Import	٣	Accounts	Ŧ
Job Trigger will be schedu	lled in UTC tin	nezone	
Minutes			

APPENDIX

1.Question: How to create an auto-approve workflow?

Answer: Please create a workflow by following the below steps

- 1. Go to Admin -> Workflows -> Workflow List
- Click on Actions -> Create New Workflow
 Create a workflow in the following way:

SAVIYNT	💽 Back 🕞 Save 🕞 Send For Approval 🕢 Help	*	
Modules			
Properties		₩ Start	×
Name			
Auto_Approve_Workflow Workflow Parallel		l l l l l l l l l l l l l l l l l l l	
Type			
		Activity : Grant Access	×
		Detail	
		Task Complete Select Email Template	~
		Email Template	
		T	
Start			
C Action Event			X
C TASK : Access Approval			
C TASK : Access Approval Required (deprecat	ted)		
C TASK : Access Approval Not Required (depr	recated)		
C TASK : Managers Manager Approval			
C TASK : Manager Approval			

3. Click on Save and then click on Send for Approval

4. Go to Admin -> Workflows -> Workflow Approval

=	SAVIYNT Admin						
	Search						
	Identity Repository	~					
0	Policies	~					
Ŷ¢Ŷ	Global Configuration						
\odot	Settings	~	▲ WORKFLOW TYPE	STATUS	rightarrow version $rightarrow$ owner $rightarrow$	CREATED BY	CREATE DATE
ihi	Sav Roles		Parallel	Active	1	SaviyntSupportAgent1	29-Apr-2022 22:00:26
01	Job Control Panel						
ŝ	Workflows	^	Parallel	Active	1	amitk	05-May-2022 15:51:49
	Workflow List		Parallel	Active	1	admin	21-Mar-2022 15:40:33
			Parallel	Active	1	admin	21-Mar-2022 15:40:33

5. Click on Accept

A Workflow Approval List Workflow Approval List Q Advanced → Show 25 * entries WORKFLOW NAME ≜ ACTION WORKFLOW TYPE ♦ OWNER CREATED BY CREATE DATE ♣ SOURCE Auto_Approve_Workflow Parallel Pending Approval amitk 09-May-2022 18:42:33 1 UI 🥑 🛞 🙆 🚠 \langle 1 \rightarrow Next Showing 1 to 1 of 1 entries

6. Provide some comments and submit

Workflow Approval List			Enter Comment ×					
			Comments					
Workflow Approval List			Validate					
Show 25 * entries								Q Adva
WORKFLOW NAME	WORKFLOW TYPE				X Close Sub	E DATE		♠ ACTION
Auto_Approve_Workflow	Parallel	Pending Approval	1		amitk	09-May-2022 18:42:33	UI	Ø 8 6 4
Showing 1 to 1 of 1 entries								< 1
								III A
Workflow Approval List								
Workflow Approval List								
Show 25 🔻 entries								Q Advanced →
WORKFLOW NAME	WORKFLOW TYPE							¢ ACTION
No data available in table								
Showing 0 to 0 of 0 entries			Saviynt Security Ma	nager	×			
			Workflow Auto_Appro	ve_Workflow accepte	d and loaded			
					× Close			

2. Question: How do I transfer the private key (.pem) file for SFTP authentication ?

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Answer:

- 1. Procure the .pem file from the customer team
- 2. Save the file on local system as .csv file
- 3. Login to EIC as an admin user with required privileges
- 4. Go to admin page



5. Go to Settings and File Directory

Ŷ\$Ŷ Global Configuration					III U
Settings					
SMTP Configuration					
Email Templates					
Campaign Configuration		0	945		21
Analytics Configuration	Dupping John		Total Jaka Evenuted	Tatal John Failer	
Dashboard Configuration	Running Jobs		(14 days)	(14 da)	/s)
Configuration Files	Јор Туре				
IDP Configuration	Select Job Type	 Apply Filter 	Clear Filter Pau	se all jobs +Add New Job	Actions ~
0Auth Settings					
Webservice Auth Configuration					Q
External Setup	RY 🝦 JOB TYPE 🔶	LAST RUN	STATUS NEXT RUN 🔻	JOB SCHEDULE ACTIV	DN
File Directory	Invoke Extension JAR Job (ExternalJarJob)	11-Apr-2022 15:03:29	Success 01-Jan-2099 15:45:00	At 10:15 AM (UTC), only in 2099	
User Interface Branding Configuration					
API	MicroserviceJob	11-Apr-2022 05:30:00	Success 12-Apr-2022 05:30:00	At 12:00 AM (UTC)	6 🖻

6. Click on the Datafile section and click on the Upload New File button to upload the file

		III u
File Directory		
Views	File Name	• Upload New File
externalJar SAV	Show 15 🔻 entries	۵
Datafiles	FILE NAME	ACTIONS
ConnectorFiles	abcTest.csv	• • Ē
Fail	Test_coe.csv	• • Ē
	test.csv.txt	• • =

3. Question: How do I download/upload the files from/to multiple directories on SFTP location ?

Answer: Utility supports download/upload the files from/to one directory per execution of the utility. To download files from multiple directories, create multiple connections, security systems, endpoints, and job triggers. Each trigger has to be executed in sequence.

4. Question: Can we both download and upload the files at the same time?

Answer: Utility supports only one action (download or upload) at a time per execution of the utility. You can create separate jobs for download and upload and each job with a property file corresponding to the action you want to perform download / upload and configure those jobs to run in sequence.

Troubleshooting

To troubleshoot common problems with connectors, answer frequently asked questions, and provide solutions to a few common issues you might encounter while configuring or working with connectors, see Common Troubleshooting Guide for Connectors.