



MDP

WebDAV Adapter for Cloud Platform Integration User Guide

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1.0	25.02.2019	First release of the document



Topics covered in this document:

- General information about WebDAV protocol
- Sender adapter features and configuration examples
- Receiver adapter features and configuration examples
- Setting up SAP Cloud Connector for On-Premise WebDAV connections
- Use cases with Integration Flow examples

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1. General information about WebDAV

1.1. The Protocol

WebDAV is an HTTP based file protocol standardized by the IETF specification namely RFC 4918

<https://tools.ietf.org/html/rfc4918>

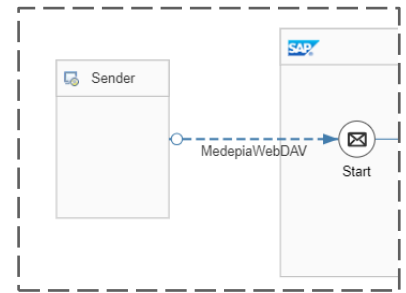
1.2. Prerequisites for Integration

A WebDAV server can be exposed to the Internet or it can be on the internal network(on-premise). For the second case, SAP Cloud Connector should be installed and configured for the integration. This document provides guidance for both scenerios.

Basically connection parameters contain host, port and credentials. WebDAV clients for different platforms can be useful for debugging and configuration.

2. Sender Adapter Features and Configuration

2.1. Basic Example



You can see general features in this example.

- We have provided the server url, credentials, and proxy type
- The adapter will only read files ending with ".txt"
- Reading directory is "/repository/default/source"
- The adapter will archive files under "/repository/default/source/archive" after a successful read

WebDAV

General

Parameters

Scheduler

CONNECTION AND CREDENTIALS

Server URL:

http://education.medepia.net:9090

Username/Password Credential:

webdavtest

Proxy Type:

None (Internet)

FILE

File Name:

.*\..txt

File Directory:

/repository/default/source/

Action After Read:

Archive

Archive Path:

.archive

2.2. File name pattern matching

File Name parameter supports regex pattern matching:

Example	Result
".*txt"	Only read files ending with "txt" e.g. "Data.txt", "Data.txt"
".*\.[tT][xX][tT]"	Only read files ending ".txt" e.g. "Data.txt"
".*\.[tT][xX][tT]"	Only read files ending ".txt", ".TXT" or ".tXt" etc.
".*\.[pP][dD][fF]"	Only read files ending ".pdf"
"F.*na.*me\.txt"	It matches "Filename.txt", "FilenameReadme.txt" etc.
".*"	Read every file in the folder.

2.3. Action after read

Action after read parameter supports "Test", "Archive", and "Delete"

Action After Read:

Test

Test

Archive

Delete

- "Test" option only reads file and does nothing afterwards
- "Archive" option archives file after reading. ".archive" means "/reading_folder/archive" as in the standard SFTP adapter
- "Delete" option deletes file after a successful read.

2.4. Scheduler options

Scheduler option simply starts the process given the configured interval:

Dropbox

General

Parameters

Scheduler

TIMER

Every:

10 sec

10 sec

30 sec

1 min

5 min

10 min

15 min

20 min

30 min

1 hr

2 hr

3 hr

4 hr

Example	Result
Every 10 seconds	Starts the process every 10 seconds starting with 00. e.g. "05:19:00", "05:19:10", "05:19:20", "05:19:30"...
Every 15 minutes	Starts the process every 15 minutes starting with 00. e.g. "05:00:00", "05:15:00", "05:30:00", "05:45:00"...
Every 2 hours	Starts the process every 2 hours starting with 00:00. e.g. "00:00:00", "02:00:00", "04:00:00", "06:00:00"...
Every 6 hours	Starts the process every 6 hours starting with 00:00. e.g. "00:00:00", "06:00:00", "12:00:00", "18:00:00"...

2.5. CamelFileName header

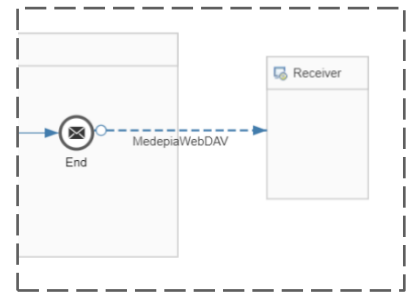
Receiver channel will add "CamelFileName" header containing the original name of the file. You can automatically use this feature with the standard SFTP receiver.

3. Receiver Adapter Features and Configuration

3.1. Basic Example

You can see general features in this example.

- We have provided the server url, credentials, and proxy type
- Writing directory is "/repository/default/target"
- File name pattern will be "ReceivedFromCPI.txt"
- The adapter will add timestamp before file extension. e.g.: " ReceivedFromCPI-2018-10-29T16-11-18.321.txt"



WebDAV

General Parameters

CONNECTION AND CREDENTIALS

Server URL: http://education.medepia.net:9090

Username/Password Credential: webdavtest

Proxy Type: None (Internet) v

FILE

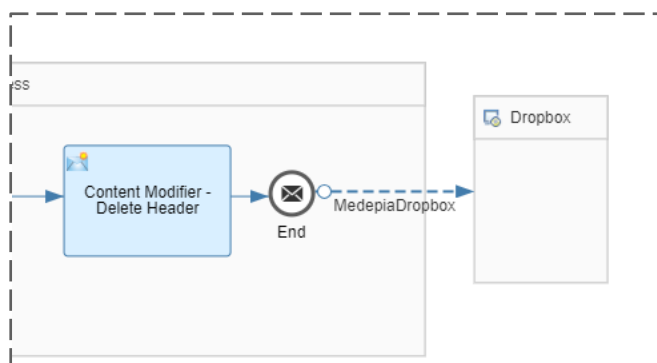
Writing File Directory: /repository/default/target

File name to write: ReceivedFromCPI.txt

File Name Addition: Add timestamp v

3.2. CamelFileName header

The adapter has preference for CamelFileName header over manual configuration. If you want to explicitly use manual configuration, you should delete CamelFileName header before receiver.



3.3. File name addition

File name addition option can add a timestamp or UUID to enforce uniqueness.

File Name Addition:

Do not add anything

Do not add anything

Add timestamp

Add UUID

3.4. WebDAV behaviour

If receiver adapter sends two files with the same name, the first file is overwritten. It is a good practice to add timestamp or UUID for these scenarios.

3.5. Example configuration

CamelFileName	File name	File Name Addition	Result
"MyDocument.pdf"	"Doc.pdf"	Add timestamp	"MyDocument.pdf"
""	"Doc.pdf"	Add timestamp	"MyDocument-2018-10-29T16-11-18.321.pdf"
"LogProps-v1.txt"	"FromCPI.txt"	Add UUID	"LogProps-v1.txt"
""	"FromCPI.txt"	Add UUID	"FromCPI-592f8f7c-5821-4853-a5af-7e131b00a590.txt"
""	"FromCPI.txt"	Do not add anything	"FromCPI.txt"
""	"FromCPI.txt"	Do not add anything	"FromCPI.txt" Here the old file is overwritten

4. On-Premise Integration with SAP Cloud Connector

4.1. Getting Subaccount Technical Name

Log in to SAP Cloud Platform Cockpit, and open CPI Subaccount:

Cockpit

Home [Europe (Rot)]

company

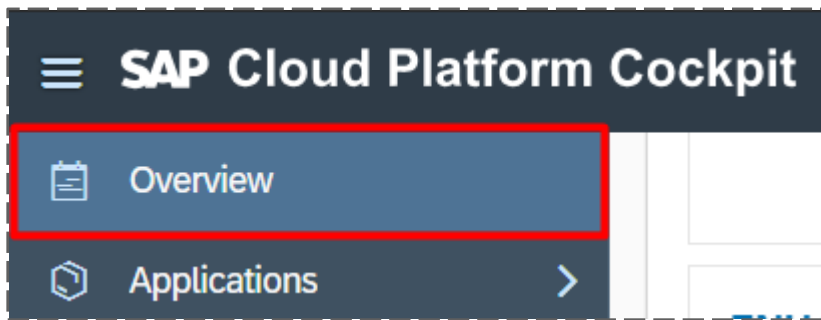
GmbH

Cloud Platform Integration Productive -

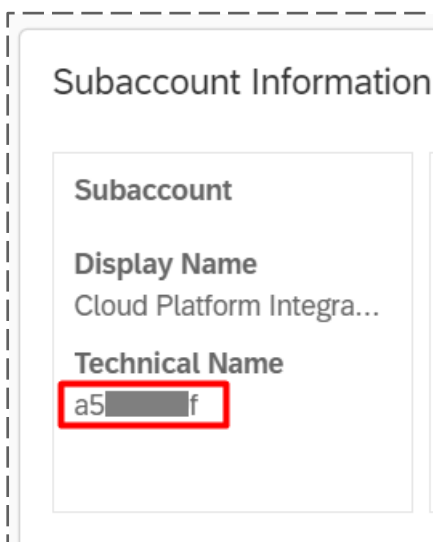
Subaccount: Cloud Platform Integration Productive -

Overview

You should be on the overview page:

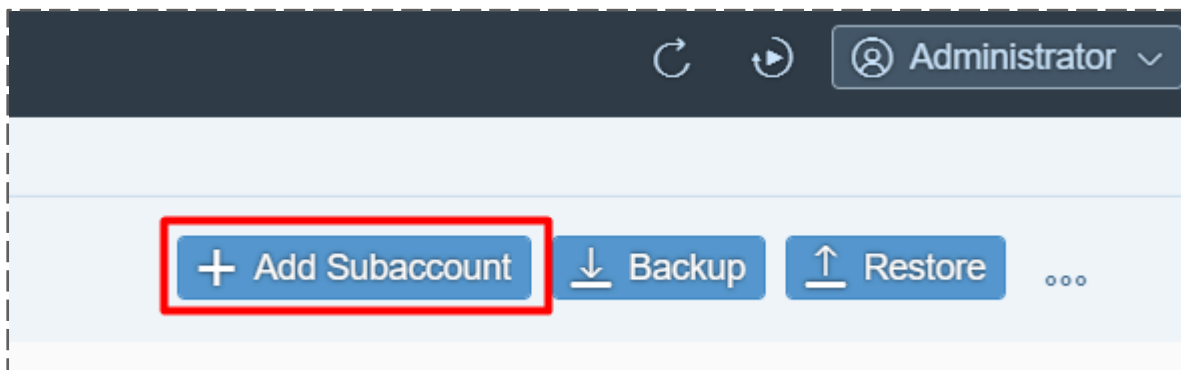


At the bottom of the page you can find the "Technical Name" of the Subaccount, please note it down.



4.2. Configuring SAP Cloud Connector

Log in to SAP Cloud Connector and find "Add Subaccount" at the top-right corner of the page:



You should enter the required information based on your CPI tenant. Write the "Technical Name" to "Subaccount" field. Location ID is used to differentiate several Cloud Connector instances:

Add Subaccount

 Configure HTTPS proxy to connect to the Internet (if required)

*Region:

Europe (Rot)

*Subaccount:

a1b2c3d4e

Display Name:

*Subaccount User:

S00000000

*Password:

.....

Location ID:

ONPREM-LOC-1

Description:

Cloud Connector instance, installed for specific applications on a specific internal network.

Save

Cancel

After the successful connection, you should see your subaccount. Subaccount names are marked with blue color. Then you should click "Cloud To On-Premise":

The screenshot shows the SAP Cloud Connector Administration interface. The left sidebar contains a menu with the following items: Connector, Security Status, Alerting, High Availability, Hardware Metrics Monitor, Configuration, Cloud To On-Premise (highlighted with a red box), On-Premise To Cloud, Monitor, Audits, and Log And Trace Files. The main content area is titled 'Connector' and displays the 'Connector Overview' section with the following details: Connector ID: 8F..., Local Name: DESKTOP-..., Local IP: 192.168.0.11, Security Status, High Availability, and Alerts. Below this is the 'Subaccount Dashboard' table:

Status	Subaccount	Display Name	Location ID	Region
	[Blue box]	[Blue box]	ONPREM-LOC-1	Europe (Rot)

Adding a new mapping:

The screenshot shows the 'Cloud To On-Premise' mapping interface. The top section is titled 'Cloud To On-Premise' and has tabs for ACCESS CONTROL, COOKIE DOMAINS, APPLICATIONS, and PRINCIPAL PROPAGATION. Below this is the 'Mapping Virtual To Internal System' table. A red arrow points to the '+' button in the Actions column of the table. The table has the following columns: Status, Virtual Host, Internal Host, Check Result, Protocol, Back-end Type, and Actions. The table is currently empty, showing 'No data'.

Choose "Non-SAP System" and click "Next":

The screenshot shows the 'Add System Mapping' dialog box. It has a title bar 'Add System Mapping' and a subtitle 'Select back-end type of on-premise system'. Below this is a dropdown menu for 'Back-end Type' with 'Non-SAP System' selected. At the bottom of the dialog, there are three buttons: 'Previous', 'Next' (highlighted with a red box), and 'Cancel'.

Enter host and port for the WebDAV server on the internal network and click "Next":

The screenshot shows a dialog box titled "Add System Mapping". It has a header bar with an information icon and the text "Enter internal (on-premise) host and port". Below this, there are two input fields: "*Internal Host:" with the value "webdavhost.company.internal" and "*Internal Port:" with the value "8080". Both input fields are highlighted with a red rectangle. At the bottom of the dialog, there are three buttons: "Previous", "Next" (highlighted with a red rectangle), and "Cancel".

You can keep the same host and port information or change them. For illustrative purposes it is changed in the example:

The screenshot shows a dialog box titled "Add System Mapping". It has a header bar with an information icon and the text "Optionally change virtual names (used on cloud-side)". Below this, there are two input fields: "*Virtual Host:" with the value "webdav-virtual-host-1" and "*Virtual Port:" with the value "9090". Both input fields are highlighted with a red rectangle. At the bottom of the dialog, there are three buttons: "Previous", "Next" (highlighted with a red rectangle), and "Cancel".

Principal type "None":

The screenshot shows a dialog box titled "Add System Mapping". It has a header bar with an information icon and the text "Select principal type". Below this, there is a dropdown menu labeled "Principal Type:" with the value "None" selected. At the bottom of the dialog, there are three buttons: "Previous", "Next" (highlighted with a red rectangle), and "Cancel".

You can enter a description:

Add System Mapping

i Optionally enter a description

Description: SAP Cloud Connector mapping for the WebDAV server on the internal network 1.

Previous

Next

Cancel

Mark "Check Internal Host" and finish the mapping creation:

Add System Mapping

i Summary

Protocol: HTTP (None)
Internal: webdavhost.company.internal:8080
Virtual: webdav-virtual-host-1:9090
Check Internal Host: ☒

Previous

Finish

Cancel

Add resource

Cloud To On-Premise

ACCESS CONTROL COOKIE DOMAINS APPLICATIONS PRINCIPAL PROPAGATION

Mapping Virtual To Internal System

Status	Virtual Host	Internal Host	Check Result	Protocol	Back-end Type	Actions
	webdav-virtual-host-1:9090	localhost:8080	Not Reachable	HTTP	Non-SAP System	

Resources Accessible On webdav-virtual-host-1:9090

Enabled	Status	URL Path	Access Policy	Actions
No data				

You can specify paths to restrict access. In this example CPI can only access files and folders under `"/repository/default/":`

Add Resource

*URL Path:

/repository/default/

Enabled:

☒

Access Policy:

☐ Path only (sub-paths are excluded)

☒ Path and all sub-paths

Description:

Save

Cancel

Open SAP Cloud Platform Cockpit and go to "Connectivity->Cloud Connectors". You should see the configured location ID and virtual host:

The screenshot shows the SAP Cloud Platform Cockpit interface. On the left sidebar, the 'Cloud Connectors' option is highlighted. The main area displays the configuration for a connector with the Master Instance 'ONPREM-LOC-1'. Below this, a table titled 'Exposed Back-End Systems' lists the virtual host 'webdav-virtual-host-1:9090' with protocol 'HTTP' and back-end type 'Non-SAP System'. The status is 'Available'.

Host	Protocol	Back-End Type	Resources
webdav-virtual-host-1:9090	HTTP	Non-SAP System	Available

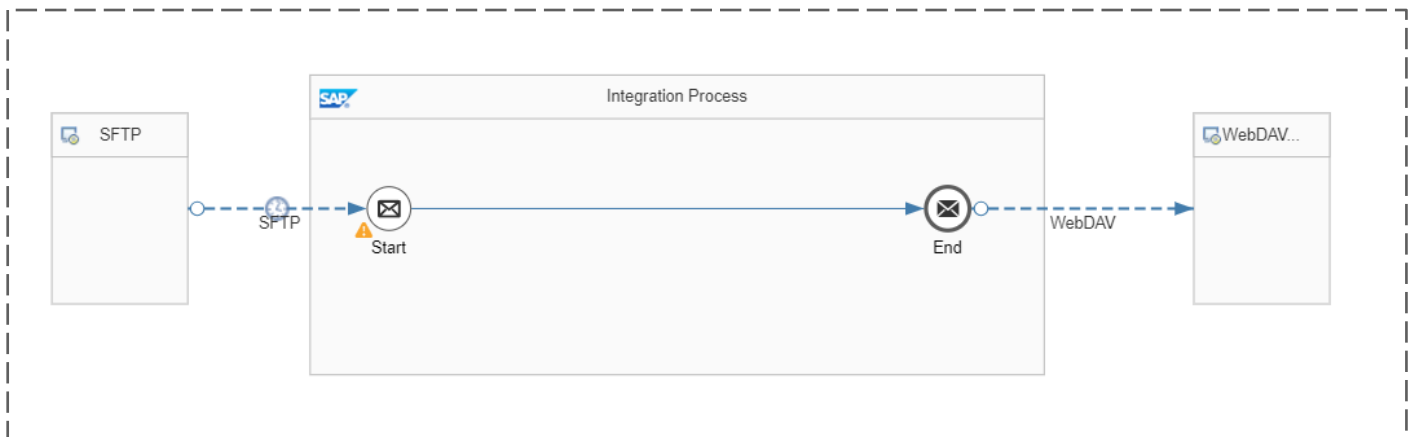
4.3. Configuring the WebDAV Adapter for On-Premise

You can now configure the WebDAV adapter to use this connection:

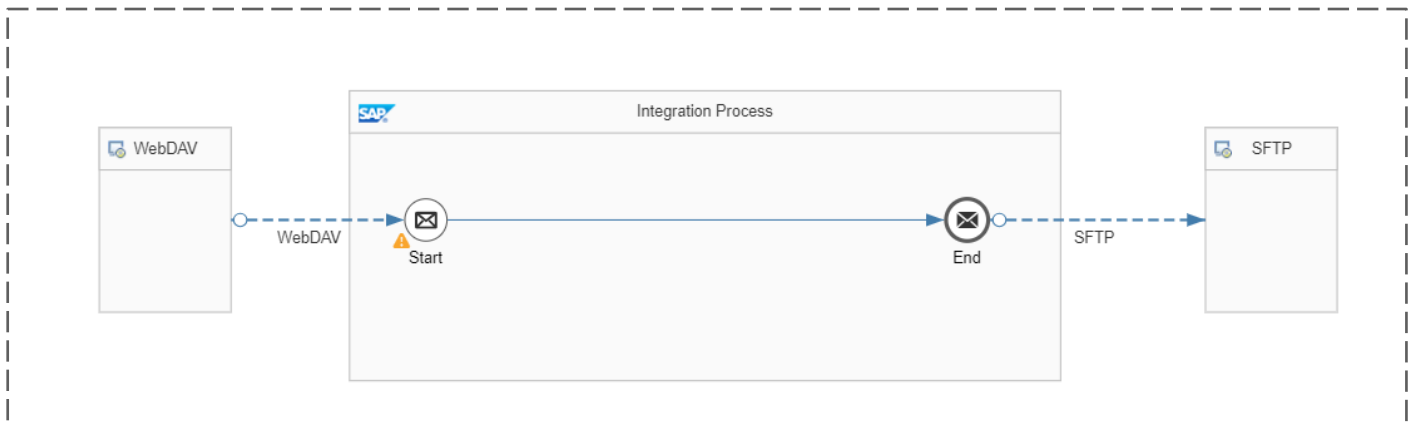
The screenshot shows the 'WebDAV' configuration page with the 'Parameters' tab selected. Under 'CONNECTION AND CREDENTIALS', the 'Server URL' is 'http://webdav-virtual-host-1:9090', the 'Username/Password Credential' is 'webdavtest', the 'Proxy Type' is 'Cloud Connector (On-Premise)', and the 'Cloud Connector Location ID' is 'ONPREM-LOC-1'. The 'FILE' section is partially visible at the bottom.

5. Example Integration Flows

5.1. SFTP to WebDAV integration

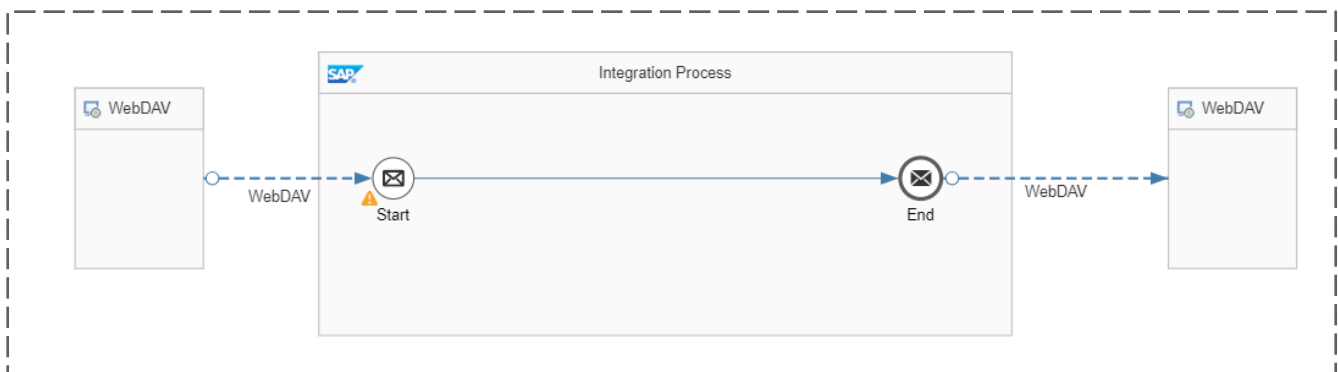


5.2. WebDAV to SFTP integration



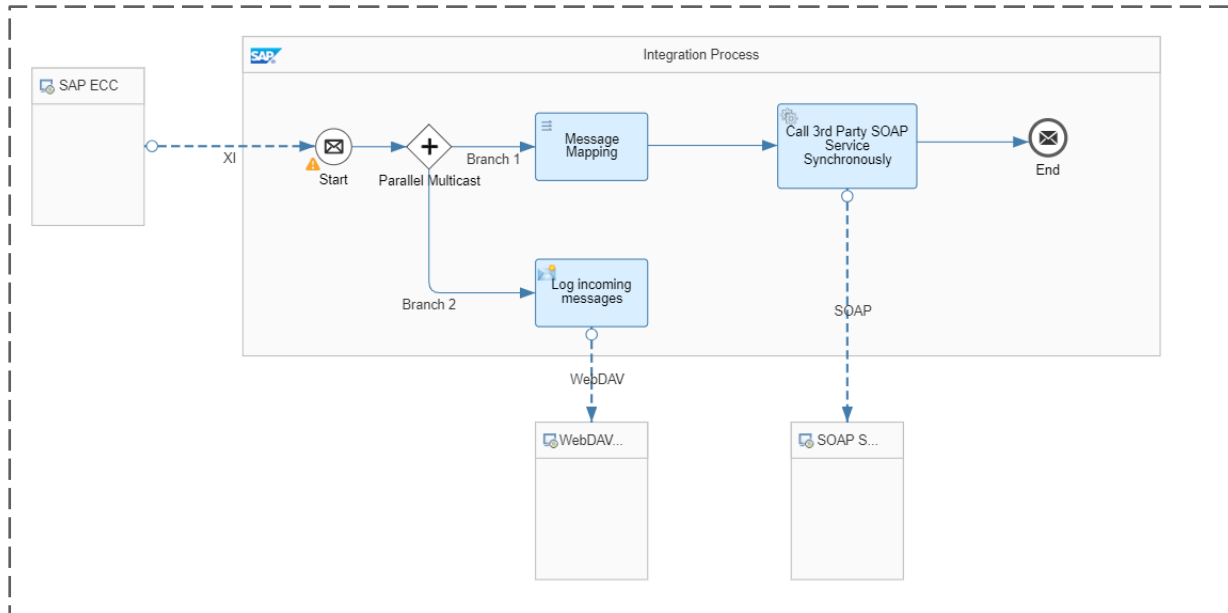
5.3. WebDAV to WebDAV integration

Here sender adapter sets "CamelFileName" header, so you will see the same filename in the writing folder without making any other configuration.



5.4. Logging incoming files to WebDAV

Here is a typical scenario SAP on premise system connects to an 3rd party SOAP Web Service. We want to log requests to a WebDAV server for testing purposes. You can set the CamelFileName header in a "content modifier" or you can delete the header to set the filename manually.



6. Exception Handling FAQ

Q1: Where can I see the error logs?

A1: If you are using the adapter as sender, you should check tracing logs. If you are using the adapter as receiver your messages will fail and you can see them in the monitoring view.

Q2: What can be the reason for "502 Bad Gateway" error message?

A2: This error can happen if you are using SAP Cloud Connector and back-end service is not responding to the requests coming from SAP Cloud Connector. Please check your on-premise server for connectivity.

Q3: What can be the reason for "403 Forbidden" error message?

A3: This error can happen if you are using SAP Cloud Connector and the path you are accessing is not configured under "Resources Accessible" in SAP Cloud Connector.

Q4: How can I check if my regex in the sender adapter is correct?

A4: Regex functionality uses the standard Java string matching. You can also use online tools.