

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

# Setup Guide

## COLLECTION AUTOMATED REMINDERS Using SAP Workflow Management or SAP Build Process Automation

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# Overview

This document provides information about setting up the SAP Business Technology Platform account to consume the workflow content package Collections Automated Reminders. The main audience of this document are technical IT/system administrators.

## Scenario Definition

### 1. Objectives

- Automated workflow to send dunning notice details to different internal teams to ensure timely payment from customer

### 2. Features

- Fetch overdue invoice and customer details from S/4HANA system and derive the approvers based on data fetched.
- Approval flow to different internal teams.
- Update dunning block based on the communication with customer
- Plug and Play with SAP S/4 HANA without additional development.
- Pre-configured process steps to create new variants. New Process variants can be configured in a low-code, no-code approach.
- Agent/approver determination using Business Rules or external service.
- Flexibility in determining process variants based on business conditions.
- Pre-built integration content to call SAP S/4 HANA from SAP Workflow Management or SAP Build Process Automation.
- Out-of-the-box visibility into key process performance indicators.

### 3. Benefits

- This extension will notify relevant teams about the overdue invoices which will help in reducing the total overdue receivable amount.

### 4. Applicable Scenarios

- Dunning & invoice collection

# Solution Diagram

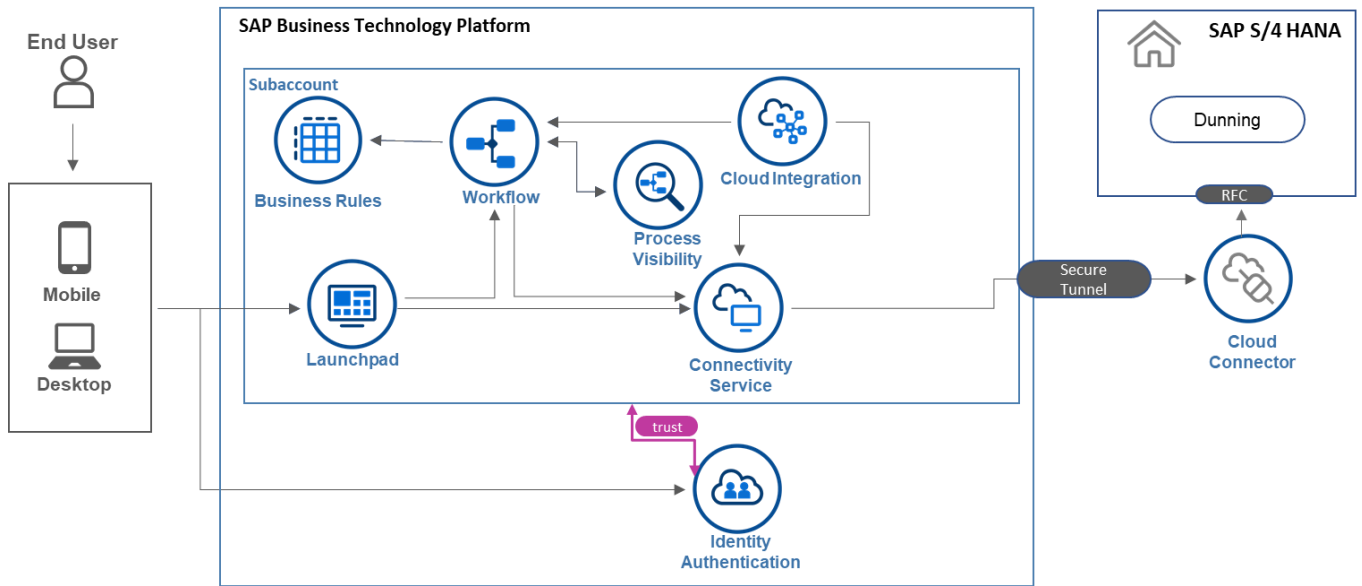


Table 1. Required Services

Service Name	Usage
SAP Launchpad Service	Simplify access to business apps with a role based, personalized launchpad site
SAP Workflow Management	Digitize workflows, manage decisions, and gain end-to-end process visibility
SAP Integration Suite	Develop and manage enterprise-wide integration across heterogeneous landscapes
Identity Authentication	Authentication and single sign-on
SAP Connectivity Service	Establish connections between cloud applications and SAP S/4HANA
SAP Authorization and Trust Management Service	Manage application authorizations and connections to identity providers
SAP BTP Cloud Foundry Runtime	The SAP BTP, Cloud Foundry runtime lets you develop polyglot cloud-native applications and run them on the SAP BTP Cloud Foundry environment
SAP Cloud Connector	Establish secure and reliable connectivity between your cloud applications and SAP S/4HANA running in isolated networks

## Required SAP BTP Services

The workflow content package **collections automated reminders** is intended to be used for finance LOB specific to the invoice collection and dunning processes. It requires the following services in SAP Business Technology Platform.

- SAP Build Process Automation or SAP Workflow Management to orchestrate the process.
- SAP Integration Suite for data activities with Dunning Notices information.
- SAP Connectivity service (cloud connector) to establish access to SAP S/4HANA on-premise.
- SAP Launchpad service to access the apps that are involved in the process.
- SAP Business Application Studio to modify/deploy the SAPUI5 applications.
- SAP BTP, Cloud Foundry runtime.

# Setup and Configuration

**Collection Automated Reminders** content package requires SAP Build Process Automation or SAP Workflow Management subscription or a CPEA contract. Based on which service you plan to use, follow the appropriate section to configure either SAP Build Process Automation or SAP Workflow Management.

## Configure SAP Build Process Automation

Follow the setup and configuration section of SAP Build Process Automation:

1. [Subscribe to SAP Build Process Automation \(Standard Plan\)](#)
2. [Configure Destinations for Live Process Projects](#)
  - a. Import Package Destination
  - b. Business Rules Destination to support start and step conditions
3. [Optional] [Configure SAP Launchpad Service for SAP Build Process Automation](#)

### Configure Process Automation Destination

A HTTP destination is required in the BTP subaccount where SAP Build Process Automation is subscribed. Create a destination with name "sap\_process\_automation\_service" with the following configuration if it doesn't exist already. Please refer how to [create a HTTP destination](#) OAuth 2.0 Authentication (client credentials).

Name	sap_process_automation_service
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentias
URL	<"endpoints"."api">
Client ID	<"uaa":"clientis">
Client Secret	<"uaa":"clientsecret">
Token Service URL	<"uaa":"url"/>/oauth/token

Note: While creating the service instance for SAP Build Process Automation service, make sure that at least the required scopes are assigned (help documentation to enable technical authentication to [access the SAP Build Process Automation APIs](#)). If the scopes are not assigned, you can also [update the service instance](#) with the required scopes.

### Configure SMTP Mail Destination

Configure email destination to automatically send email notification to the involved parties. For more information on configuring the destination, see [configure SMTP mail destination](#).

## Configure OAuth2ClientCredentials SAP Build Process Automation Destination (Service Instance)

Ignore this step if there is already a destination using SAP Build Process Automation service instance created.

Create new destination to call SAP Build Process Automation APIs using a service route from SAP UI5 component. For more details, follow the help document:

<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/685f383cebb54c009b2fac633b32c90f.html>.

The image shows two screenshots of the SAP Destination Configuration wizard. The top screenshot is the 'Service Instance' tab, showing fields for Service Instance (sap\_processautomation), Name (process\_atuomation\_service\_destination), and Description (Call SAP Process Automation APIs using a service route). The bottom screenshot is the 'Additional Properties' tab, showing fields for Name (process\_automation\_service\_destination), Type (HTTP), Description (Call SAP Process Automation APIs using a s...), URL (https://sap.com/DUMMY\_URL), Proxy Type (Internet), Authentication (OAuth2ClientCredentials), Use mTLS for token retrieval (unchecked), Client ID (sb-...), Client Secret (\*\*\*\*\*), Token Service URL Type (Dedicated), Token Service URL (https://...), Token Service User, and Token Service Password. The 'Additional Properties' section includes endpoints, html5-apps..., saasregistry..., sap.cloud.s..., and sap.cloud.s... with their respective values and a 'Use default JDK truststore' checkbox.

## Configure SAP Workflow Management

Follow the setup and configuration section of SAP Workflow Management.

<https://help.sap.com/viewer/6f55baaf330443bd8132d071581bbae6/Cloud/en-US/d7910e2bf7f64afc9d0eb21b0cc9e84d.html>

Note: While creating the service instance for Workflow service, make sure that at least the following scopes are assigned (help documentation to [enable technical authentication](#) to access the workflow APIs). If the scopes are not assigned, you can also [update the service instance](#) with the following scopes.

- WORKFLOW\_INSTANCE\_START

- WORKFLOW\_INSTANCE\_UPDATE\_CONTEXT
- WORKFLOW\_INSTANCE\_GET
- MESSAGE\_SEND

### Configure Workflow Email Destination

Configure workflow email destination to automatically send email notification to the involved parties. For more information on configuring the destination, see [configure workflow email destination](#).

### Configure Workflow Destination

A HTTP destination is required in the BTP subaccount where SAP Workflow Management is subscribed. Create a destination with name “Workflow” with the following configuration, if it doesn’t exist already. Please refer how to [create a HTTP destination](#) OAuth 2.0 Authentication (client credentials).

Name	Workflow
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<rest_api_url>
Client ID	<client ID>
Client Secret	<client secret>
Token Service URL	<uaa.url>/oauth/token

### Configure Business Rules Destination

A HTTP destination is required in the Cloud Foundry account where SAP Workflow Management is subscribed. Create a destination with name “BUSINESS\_RULES” with the following configuration, if it doesn’t exist already. Please refer how to [create a HTTP destination](#) and [how to access business rules APIs](#) using OAuth 2.0 Authentication (client credentials)

Name	BUSINESS_RULES
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<rule_runtime_url>/rules-service
Client ID	<client ID>
Client Secret	<client secret>
Token Service URL	<uaa.url>/oauth/token



## **Configure Destination to Enable Start & Step Conditions**

To enable the usage of start conditions and step conditions on a process variant, create a destination for business rules with the configuration as mentioned in the following help document:

[https://help.sap.com/viewer/6f55baaf330443bd8132d071581bbae6/Cloud/en-US/543b5dbd77d940b4b1f972298b559911.html?q=WM\\_BUSINESSRULES](https://help.sap.com/viewer/6f55baaf330443bd8132d071581bbae6/Cloud/en-US/543b5dbd77d940b4b1f972298b559911.html?q=WM_BUSINESSRULES)

## **Configure OAuth2 Client Credentials Workflow Destination (Service Instance)**

Similarly, create new Destination to call Workflow Service APIs using a Service route from SAP UI5 Component. For more details, follow the official help document:

<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/685f383cebb54c009b2fac633b32c90f.html>

## Configure Cloud Integration Destination

To call an integration flow, a HTTP destination is required in the SAP BTP tenant where the SAP Workflow Management is subscribed. Create a destination called CPI with either Basic Authentication or OAuth2ClientCredentials.

### Destination with Basic Authentication

Name	CPI
Type	HTTP
Proxy Type	Internet
Authentication	Basic Authentication
URL	<runtime.url>
Username	<user>
Password	<password>

### Destination with OAuth2ClientCredentials Authentication

Name	CPI
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<runtime.url>
Client Id	<client ID>
Client Secret	<client secret>
Token Service URL	<oauth.url.for.clientCredentials>

### Additional Properties to Destination

Additionally, add the following properties in the destination for cloud integration.

WebIDEEEnabled	true
WebIDESystem	CPI
WebIDEUsage	odata_gen

## Configure Communication Scenarios in SAP S/4HANA

Communication user is not required as there no connection needed with SAP S/4HANA Cloud

## Configure APIs in SAP S/4 HANA

Following OData/SOAP services are needed to be configured in SAP S/4HANA to use the content package.

### OData Services:

/sap/opu/odata/sap/API\_OPLACCTGDOCITEMCUBE\_SRV

/sap/opu/odata/sap/FAR\_DUNNING\_HISTORY\_SRV

### Steps to Register OData Services in SAP Gateway

1. Go to t-code “/IWFND/MAINT\_SERVICE”
2. Click on “Add Service”
3. Select the required System Alias (Select LOCAL as system alias in case of Embedded Deployment of Gateway)
4. Enter Technical Service Name as “API\_OPLACCTGDOCITEMCUBE\_SRV” and click on “Get Services”
5. Select “API\_OPLACCTGDOCITEMCUBE\_SRV” and click on “Add Selected Services”
6. Enter the required package and click on OK
7. Repeat steps 1 to 6 for Technical Service “FAR\_DUNNING\_HISTORY\_SRV”

### SOAP Service:

/sap/bc/srt/scs/sap/journalentrybulkchangerequest\_

Follow the documentation on how to [Configure Journal Entry Change \(Asynchronous\) SOAP API](#).

Add the CPI iFlow endpoint of “Confirm Dunning Block” (<https://<cpu.runtime.url>/cxf/confirmDunningBlock>) in the outbound confirmation service (Consumer Proxy - JournalEntryBulkChangeConfirmation\_Out) of the above mentioned SOAP API with following settings:

Configuration: Consumer Proxy 'CO\_FINS\_JOURNAL\_ENTRY\_BULK\_CHA', Logical Port ' [REDACTED] '

Save Edit Ping Web Service

Consumer Security **Messaging** Transport Settings Message Attachments Identifiable Business Context Operation S

**Reliable Messaging (Asynchr.)**

RM Protocol: SAP RM

**Message ID (Synchronous)**

Message ID Protocol: Suppress ID Transfer

**Metering of Service Calls**

Data transfer scope: Enhanced Data Transfer

Transfer protocol: Transfer via SOAP header

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Consumer Security Messaging **Transport Settings** Message Attachments Identifiable Business Context Operation Settings Administrative Information

**URL Access Path**

Complete URL  URL components

\* URL: https://[REDACTED].hana.ondemand.com/cxf/confirmDunningBlock

Logon Language: Language of User Context

**Proxy**

Name of Proxy Host: [REDACTED]

Port Number of Proxy Host: [REDACTED]

User Name for Proxy Access: [REDACTED]

Password of Proxy User: [REDACTED]

**Transport Binding**

Make Local Call: No Call in Local System

\* Transport Binding Type: SOAP 1.1

Maximum Wait for WS Consumer: 0

Optimized XML Transfer: None

Compress HTTP Message: Inactive

Compress Response: True

## Configure SAP S/4HANA Destination

Configure a HTTP destination to connect with SAP S/4HANA, refer to documentation [here](#) for the same. The below is a destination configuration for *SAP S/4HANA*.

Name	S4HANA
Type	HTTP
Proxy Type	On-Premise
User	<USER>
Password	<PASSWORD>

Authentication	BasicAuthentication
URL	<OData base URL of SAP S/4HANA cloud> <OData base URL of SAP S/4HANA>
Additional Properties	sap-client: <client number>

The below is a destination configuration for for *SAP S/4HANA Cloud*.

Name	S4HANA
Type	HTTP
Proxy Type	Internet
User	<COMMUNICATION_USER>
Password	<COMMUNICATION_PASSWORD>
Authentication	BasicAuthentication
URL	<OData base URL of SAP S/4HANA cloud>
Additional Properties	sap-client: <client number>

## Configure Cloud Connector

For SAP S/4HANA landscape, configure cloud connector to enable secure tunnel to SAP BTP tenant. Please refer the help documentation to [configure Cloud Connector](#).

Services/Resources that need to be exposed from SAP S/4HANA using Cloud Connector

Resources	Protocol	Backend-Type
/sap/opu/odata/sap/FAR_DUNNING_HISTORY_SRV	HTTPS	ABAP System
/sap/opu/odata/API_OPLACCTGDOCITEMCUBE_SRV	HTTPS	ABAP System
/sap/bc/srt/xip/sap/JournalEntryBulkChangeRequest_In	HTTPS	ABAP System

## Import, Configure and deploy Integration Content

This package utilizes Cloud Integration capability within SAP Integration Suite to provide integration between SAP ERP (or SAP S/4HANA) and SAP Build Process Automation or SAP Workflow Management. Further details can be found in dedicated integration guide of the integration package “SAP Build Process Automation Integration with SAP S/4HANA for Automated Collections Reminder”.