



PUBLIC

SAP Build Process Automation

Contract Workspace Integration with External System

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This document contains 3 sections. Each section covers different information about this template content package.

1. **Overview:** In this section, you will get quick overview of the use case, the high-level components used and how the template works in nutshell. Prerequisite section provides information of different services of SAP BTP that are required to use this template.
2. **Configuration Guide:** It contain sections which will guide you to setup your (a) *SAP BTP Account* with destination, cloud connector, user roles etc, (b) *Integration Content* via SAP Integration Suite, (c) *SAPUI5 application* via SAP Business Application Studio and (c) Import and configure the template using *SAP Build Process Automation* design studio and (d) *SAP Work Zone* to access the MyInbox or Task Center and other applications.
3. **User Guide:** This section provides details about different artefacts that are used in this template like process definition, decision diagram, action project details, forms, email notifications etc. to better understand how different capabilities are used in this template.

Note: Learning content are published only for demo and reference purposes. We do not provide any support to learning / sample content.

Note: This documentation is not a detailed guide to setup SAP BTP services. It assumes that IT admin who is setting the content is skilled with SAP BTP environment. **Configuration section must be followed.**

Note: This template content is to accelerate your solution development. You must modify this template according to your requirements to achieve the desired business goal. To use this template content, you need to have basic knowledge and understanding of SAP Build Process Automation, SAP Integration Suite, and its capabilities.

Overview

This document provides information about setting up the SAP Business Technology Platform account to consume the SAP Build Process Automation **Contract Workspace – Push to External System template**. The main audience of this document are technical IT/system administrators.

During Amendment Scenarios, any updates performed by Buyer, will not be integrated to ERP, if the manual action of “Push to External System” is not performed and thus any Price\Quantity updates performed in Ariba will not be reflected in ECC and the consumption continue to happen with outdated terms. **Contract Workspace Integration iFlow** would facilitates to generate a report of CW which are published but pending to push to ECC/External system.

Identify Contracts to Integrate

Use Ariba Operation Reporting API to Extract Contract Data from Ariba.

Define the Query template for the API with Required Data.

Schedule Extraction Process

Define CPI iFlow to extract the relevant data periodically.

CPI is used for data processing to generate csv files for BPA inputs.

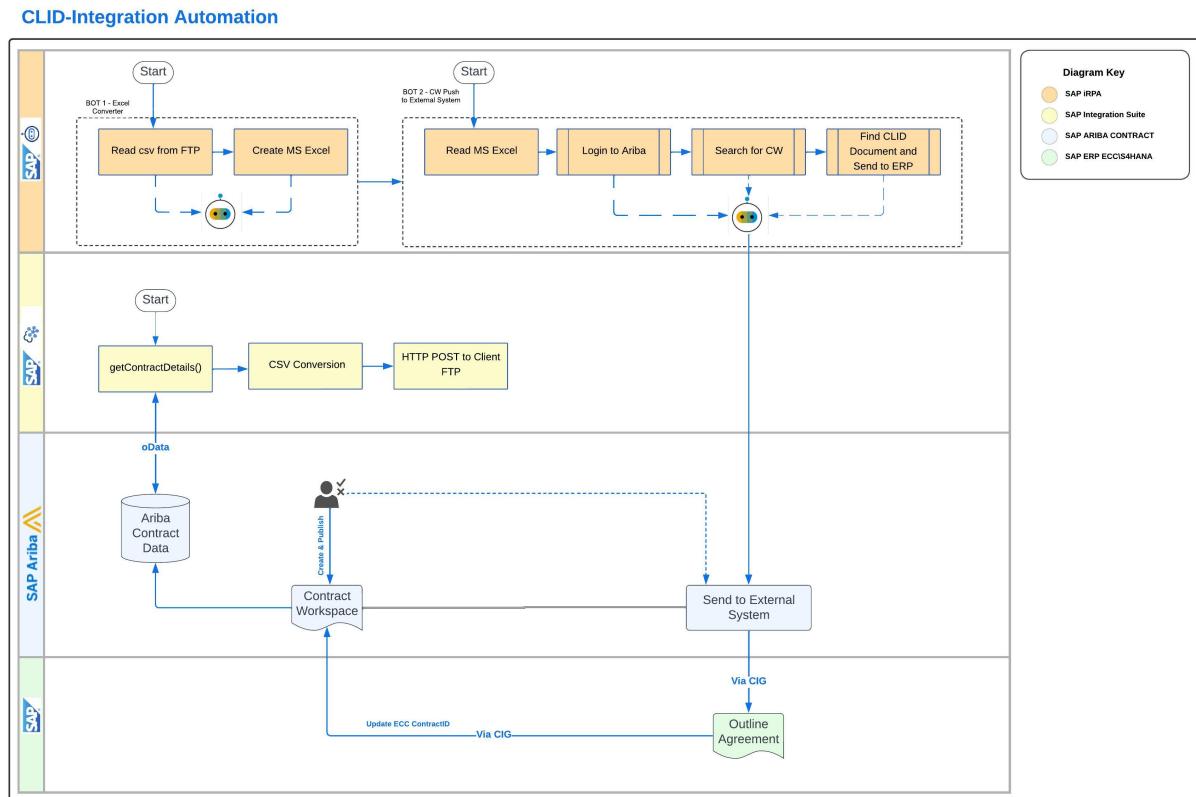
Generated csv Files are sent to an FTP Server.

Define BPA Process

Define the CLID Integration Steps in BPA Bot.

The Bot Reads the input Data from csv File and performs steps to click on Send to External System.

BPA Process Flow



Prerequisites

Acquire below from intelligent Robotic Process Automation factory.

1. Java SDK
2. Ariba SDK
3. Excel SDK
4. Web SDK

All Dependencies

Name	Version	Type	Description
> Ariba SDK SDK	1.41.26	SDK	The ARIBA SDK package is a collection of activities allowing you to create automations using SAP Ariba.
> Core SDK SDK	1.41.26	SDK	The Core SDK package contains main methods and functions you use to build and run your automation projects.
> Excel SDK SDK	1.41.26	SDK	The Excel SDK package is a collection of activities allowing you to create automations using Microsoft Excel.
> Web SDK SDK	1.41.26	SDK	The Web SDK Package helps you automate web applications.

This **Contract Workspace Integration with External System** template is intended to be used for SAP Ariba CW Integration with ECC and requires the following services in SAP Business Technology Platform.

- SAP Build Process Automation to orchestrate the process.
- SAP Integration Suite to consume Operational reporting API of Sourcing

Configuration Guide

Contract Workspace Integration with External System template requires SAP Build Process Automation subscription or CPEA contract. Follow the [setup and configuration section](#).

Setup SAP Business Technology Platform Cockpit

Setup Integration Content

Contract Workspace Integration with External System

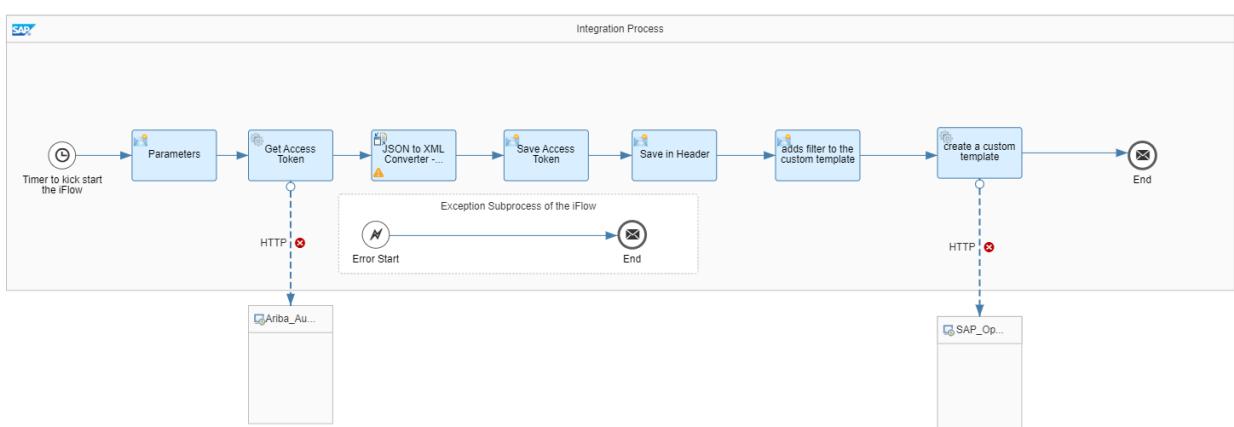
During Amendment Scenarios, any updates performed by Buyer, will not be integrated to ERP, if the manual action of “Push to External System” is not performed and thus any Price\Quantity updates performed in Ariba will not be reflected in ECC and the consumption continue to happen with outdated terms. Contract Workspace Integration iFlow would facilitates to generate a report of CW which are published but pending to push to ECC/External system.

The following integration models are available in this template.

Contract Workspace Integration with External System has two iFlow linked.

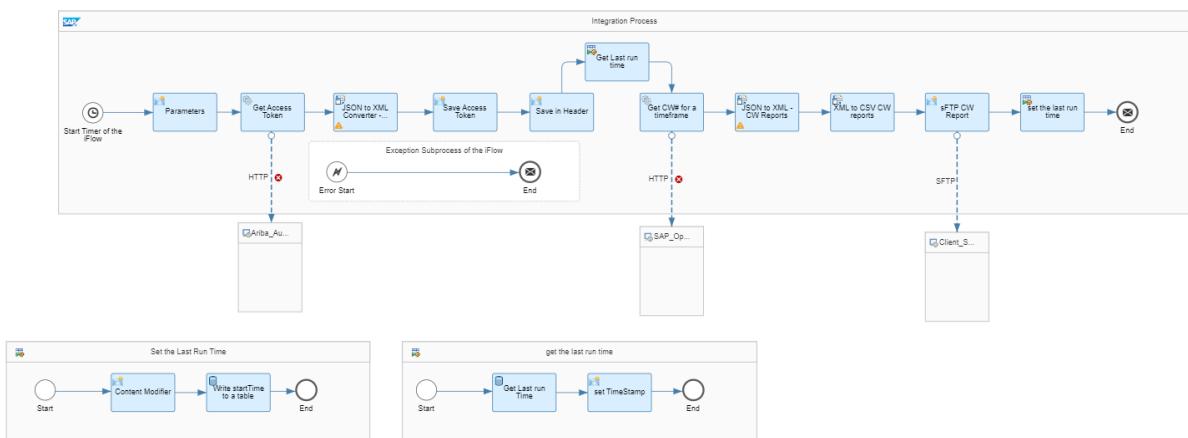
1. Step 1 - External Sync Contract Template Creation

This iFlow creates a custom template (*CW_iRPA_Template*) to export report of Contract workspace created on a day timeframe which are pending to push to external system. This is a Pre-requisite one-time activity.

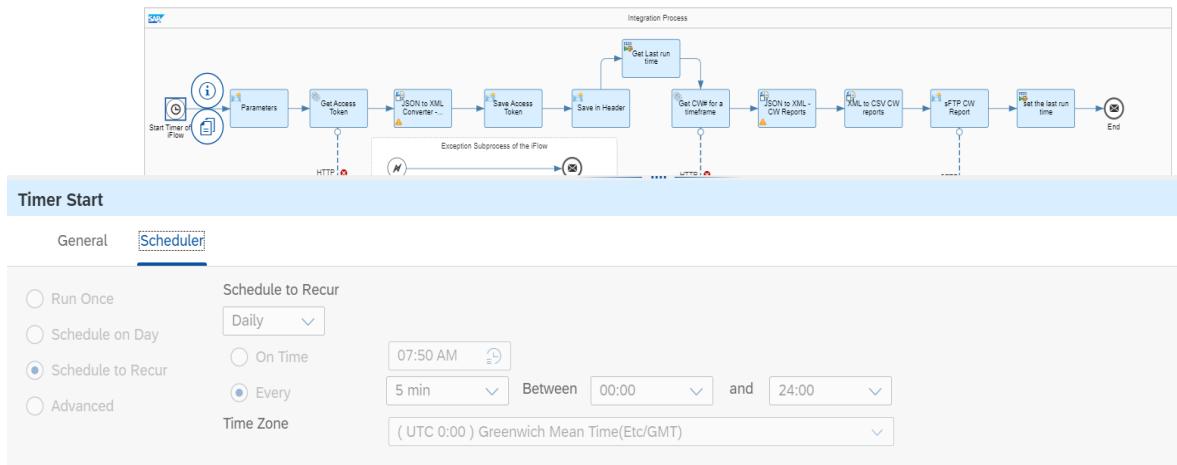


2. Step 2 - Contract Workspace Report

This iFlow use the custom template created from step 1 and extract the report which has contract workspaces created on a particular day pending to push to external system. The date from when the transactional data will be exported during the first run is stored in the iFlow datastore. After successful export, the system creates a timestamp, and every other run will be a download from the latest timestamp.



Configure the timer of the iflow according to the customer convenient schedule.



Import the template to your SAP Integration Suite tenant. To be able to import and deploy integration flows, you need *PI_Integration_Developer* (in cloud foundry environment) assigned in your tenant.

- Access your SAP Integration Suite tenant management node (<https://<integrationtenant>/itspaces>).
- View all pre-packaged integration flow under Discover->Integration.
(<https://<integrationtenant>/itspaces/shell/discover>)
- Search content package “**<Integration Package Name>**”.
- Click on the package **<integration package name>**.
- Click Copy to import the Integration content package to your workspace.
- Navigate to the *Monitor* view (<https://your.integration.tenant/itspaces/shell/monitoring>) to setup the security materials required for the package.
- Deploy the following credentials using the *Security Material* app.
 - **<NAME> – (<Credentials type>)**
<screenshot>

Note: The credential names can be different from what is mentioned above. Make sure that you configure the appropriate credential names in the integration flow's HTTP adapter configuration. Configuration of “Contract Workspace Push to External System using Operational reporting API” has below sections.

1. Sender Adapter

Sender Adapter is responsible for Generating SAP Ariba Access token and consume the token ID to use it in Operational reporting Sourcing API to fetch Contract workspace which are pending to be pushed to the external system.

2. Receiver SFTP Adapter

Once Contract workspace report is generated, iFlow would SFTP the report to customer repository and the same will be consumed by SAP BPA BOT to push it to external system.

Sender Adapter

SAP Ariba Access Token Generation Process

- Click Configure hyperlink in the iFlow.
- Select Receiver to “Ariba_Authentication”.
- Based on SAP Ariba realm Data center, please configure “Address” link as appropriate.
- Deploy the integration model.

Data Center	Access Token Generation URL
US	https://api.ariba.com/v2/oauth/token
Prod3	https://api.ariba.com/v2/oauth/token
EU	https://api-eu.ariba.com/v2/oauth/token
KSA	https://api.mn2.ariba.com/v2/oauth/token
AUS	https://api.au.cloud.ariba.com/v2/oauth/token
CHN	https://api.sapariba.cn/v2/oauth/token
JPY	https://api.jp.cloud.ariba.com/v2/oauth/token
UAE	https://api.mn1.ariba.com/v2/oauth/token

Configure "Step 1 - External Sync Contract template Creation"

Receiver More

Receiver: Ariba_Authentication

Adapter Type: HTTP

Connection

Address: https://api.mn2.ariba.com/v2/oauth/token

Query: grant_type=openapi_2lo

SAP Ariba Operational Reporting Sourcing API Configuration Process

- Click Configure hyperlink in the iFlow.
- Select Receiver to “SAP_OperationalReportingAPI_Sourcing_System”.
- Based on SAP Ariba realm Data center, please configure “Address” link as appropriate.
- Deploy the integration model.

Data Center	Operational Reporting CW URL
US	https://openapi.ariba.com/api/sourcing-reporting-view/v1/prod/viewTemplates/CW_iRPA_Template
Prod3	https://openapi.ariba.com/api/sourcing-reporting-view/v1/prod/viewTemplates/CW_iRPA_Template
EU	https://eu.openapi.ariba.com/api/sourcing-reporting-view/v1/prod/viewTemplates/CW_iRPA_Template
KSA	https://mn2.openapi.ariba.com/api/sourcing-reporting-view/v1/prod/viewTemplates/CW_iRPA_Template
AUS	https://openapi.au.cloud.ariba.com/api/sourcing-reporting-view/v1/prod/viewTemplates/CW_iRPA_Template
CHN	https://openapi.sapariba.cn/api/sourcing-reporting-view/v1/prod/viewTemplates/CW_iRPA_Template
JPY	https://openapi.jp.cloud.ariba.com/api/sourcing-reporting-view/v1/prod/viewTemplates/CW_iRPA_Template
UAE	https://mn1.openapi.ariba.com/api/sourcing-reporting-view/v1/prod/viewTemplates/CW_iRPA_Template

Configure "Step 1 - External Sync Contract template Creation"

Receiver More

Receiver: SAP_OperationalReportingAPI_Sourcing_System

Adapter Type: HTTP

Connection

Address: [REDACTED]

SAP Ariba API Credentials Configuration Process

- Click Configure hyperlink in the iFlow and navigate to “More” tab.
- Configure API Key, Oauth secret and realm ID generated from developer portal.
- Deploy the integration model.

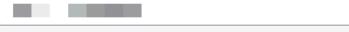
Configure "Step 1 - External Sync Contract template Creation"

Receiver [More](#)

Type: All Parameters

apiKey: 

Authorization: 

Realm: 



The secret will be displayed only once and will be changed every time you regenerate secret. Select, copy and save this in your secure storage. Use this secret in your application.

Application Key:



OAuth Client Id:



OAuth Secret:



Base64 Encoded Client and Secret:



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Receiver SFTP Server

Configure "SAP Ariba Integration File Download Events - Buying"

Receiver More

Target	Receiver: SFTPServer
	Adapter Type: SFTP
	File Name: {{realm}}_\${property.event}_\${header.timestamp}_\${property.SAP_RunId}.zip
	realm: realm-T
	Address: <<your SFTP server address>>
	Proxy Type: Internet
	Authentication: User Name/Password
	Credential Name: <<name of your SFTP security credential>>
	Timeout (in ms): 10000
	Maximum Reconnect Attempts: 3
	Reconnect Delay (in ms): 1000

SAP Build Process Automation

Import Content

Contract Workspace Integration with External System is achieved through two Robotic process.

1. CW Integration - BOT 1 - Excel Converter

BOT1 reads the csv file generated from CPI iFlow (Contract Workspace Integration with External System) from the local client FTP folder/ repository and converts it into an excel format which will be used as an input to BOT2.

2. CW Integration - BOT 2 - CW Push to External System

BOT2 performs below actions to push CW to External system,

- Login to Ariba as a ThirdPartyUser.
- CW_IRPA_OperationalReporting_PendingToPushToExtSystem.xlsx Excel file.
- Get CW # from the excel and search the same in Ariba realm.
- Navigate to Documents tab of CW and look for "Push To External System" link.
- Click the link and traverse it to the next CW # defined in the excel. Action repeats.

Configure Process

1. CW Integration - BOT 1 - Excel Converter

Have below directories created. Incase if directories to be customer specific, please refer to Artifacts reference and Step to update the folder structure appropriately in the BPA.

Folder Structure	File Naming	Artifacts Reference	Reference Step
D:\Automation\iRPA\CLID Integration\	CW.csv	BOT 1 - Excel Converter	BOT 1 - Step 2 (Read CW csv generated from iFlow)
D:\Automation\iRPA\CLID Integration\	CW_IRPA_OperationalReporting_PendingToPushToExtSystem.xlsx	BOT 1 - Excel Converter	BOT 1 - Step 7 (create CW_IRPA_OperationalReporting_PendingToPushToExtSystem Excel)

2. CW Integration - BOT 2 - CW Push to External System

Have below directories created. Incase if directories to be customer specific, please refer to Artifacts reference and Step to update the folder structure appropriately in the BPA.

Folder Structure	File Naming	Artifacts Reference	Reference Step
D:\Automation\iRPA\CLI D Integration\supportingFiles\	iRPACredentials.xlsx	1. Login to Ariba Application	BOT 2 - Step 2 (Read Ariba login credentials)
D:\Automation\iRPA\CLI D Integration\	CW_IRPA_OperationalReporting _PendingToPushToExtSystem.xlsx	2. Search for the Contract Workspace	BOT2 - Step 2(Read CW# to push to Ext System)
D:\Automation\iRPA\CLI D Integration\supportingFiles\	ContractLineDocumentPath.xlsx	4. FINDEXTS YS - Traverse Document List to Push CLID to External System	BOT 2 - Step 2 (Read Contract Line Item Document Link)

iRPACredentials.xlsx Legends

Legend	Reference
User ID	create a BPA tech user as a ThirdPartyUser with privileges to search any Contract workspace document with the Ariba realm. <i>Note: Customers using Access Control, should include this user as part of a Project Group at template level.</i>
Password	User password to login to Ariba
URL	Customer Ariba Sourcing Third Party Login URL

ContractLineDocumentPath.xlsx Legends

Legend	Reference
Document Label	Mention the CLID reference hierarchy defined at the template level. i.e Hierarchy to traverse to the document link to reach CLID document link reference.

Sample File format based on a template of CLID document as below.

Contract Workspace EO1

Contract Workspace (Procurement)

Overview **Documents** Tasks Team Conditions Advanced Options History

Contract Workspace EO1

Name	Owner
▼ Contract Documents	Project Owner
▼ CL ID Document	Project Owner
CLID	Project Owner
Main Agreement	Project Owner

Document Label

Contract Documents
CL ID Document
CLID

Support

There is no support available for template content. If you experience general issues with SAP Build Process Automation, raise an incident via SAP Support Portal on **BPI-PA-BPC** component.

This template can be modified using SAP Process Automation. For example: add business rules to determine the approver based on a certain business logic or add an action to post collected information to backend SAP system. Refer [Help Portal](#) for more details.

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