SAP CLOUD PLATFORM | EXTERNAL

Configuration Guide

# Vendor Onboarding

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Overview

This document provides information about configuration steps to consume the live process package **Vendor Onboarding**. The main audience of this document are procurement experts, developers and product owners.

Vendor Onboarding live process content package enables to automate vendor creation process in a flexible and transparent way. It provides flexibility in executing a specific variant of the process depending on attributes like account group, vendor type, department, etc. When a user submits a request to register a new vendor, a pre-configured process variant is triggered in SAP Cloud Platform Workflow Management based on configurable business conditions. On approval from all parties involved, the vendor is created in SAP ERP. Salient features of this content package are mentioned below:

- Plug and Play with SAP ERP without additional development.

- Pre-configured process steps to create net new variants.

- New Process variants can be configured in a low-code, no-code approach.

- Flexibility in determining process variants based on business conditions.

- Create vendor for all usage types (Accounting, Purchasing, Centrally available and General-purpose vendors).

- Option to either let the vendor can directly access the cloud application to fill in their basic details or any internal team (like shared services center) perform fill on-behalf.

- Master data validations and additional business validation of vendor using business rules.

- Configure additional approvals before the vendor is created in SAP ERP.

- Agent/approver determination using Business Rules.

- The approvers are automatically assigned based on a configurable business rule.

- Automatic email notification to all parties involved.

- On approval from all parties involved, the vendor is automatically created in SAP ERP.

- Pre-built integration content to call SAP ERP RFC from SAP Cloud Platform Workflow Management.

- Out-of-the-box visibility into key process performance indicators.

SAP ERP - Vendor Onboarding
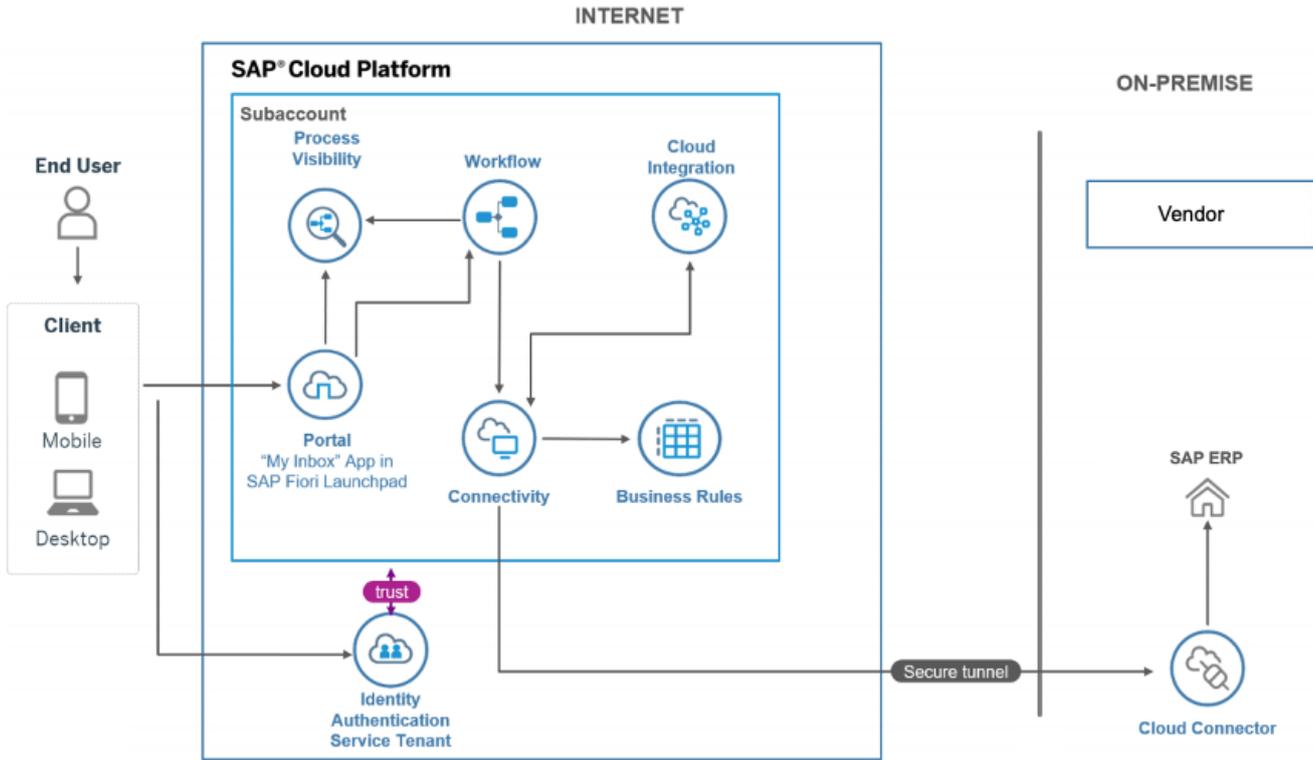
Live Process Artifacts

A process content package consists of process templates, process steps, workflow form UI, process variants, decisions and process visibility models. Please refer help documentation about these artifacts.

Process

A process template is a set of business activities and tasks that, once completed, fulfills an organization goal. The Vendor Onboarding package contains the following process template:

Vendor Onboarding – Create and onboard a new vendor in SAP ERP with a multi-level approval process. It includes six process steps for easy no-code/low-code process configuration.

A business process can be broken down logically into smaller parts or steps. Each process step is a collection of activities to perform a specific task. For example, an approval process step can contain an activity to determine the approvers, an approval task itself, notifications activities, and handle the approval result. Table 1 represents the list of process steps available to be used in Vendor Onboarding.

Table 1. Process Steps.

Process Steps	Cardinality	Constraints	Detailed Description
Create User for Vendor	0..1	- Optional step. - If added to the process, then this has to the first step of the process.	In this process step, a user will be created for the vendor in your SAP Cloud Platform account. Add this process step to the process variant only if you want the vendor to access the cloud application to fill in their basic details. If you do not add this step, then a team within the organization (for example, shared service center) will be able to fill in the general details on behalf of the vendor.
Register New Vendor	1..1	- Mandatory step. - It should follow the Create User for Vendor step. - If Create User for Vendor is not part of the variant, then this step has to be the first step of the process.	This process step has activities to capture the basic details of the vendor like name, address, contact details, tax information, etc. It also has activities to determine who will perform the task and an email notification to the user about the task.
GPO Approval	0..1	- Optional step. - It should follow the Register New Vendor.	This process step has activities to get an approval from the Group Purchasing Organization (GPO) before proceeding to next steps. The approver(s) is automatically determined using a business rule for the role **GP** and an email is sent to the approver(s).

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Enrich Vendor Details	0..2	• Optional step. • It should be after Register New Vendor or GPO Approval.	The process step has activities to enrich the vendor details with accounting or purchasing related data. For each type of enrichment (Accounting and Purchasing), you can add this process step into the variant. For example, if the process variant is to create a *Centrally* available vendor, then then the activity has to be added twice since it requires both accounting and purchasing data. However, if the process variant is to create an accounting vendor, then this step should be added only once for enrichment of accounting data.
Additional Approval	0..N	• Optional step. • It should be after Enrich Vendor Details step.	This process step has activities to validate the data captured during the Enrich Vendor Details process step. Based on the number of approval levels, this activity can be added multiple times. It should be configured to approve either Purchasing or Accounting data.
Post to ERP	1..1	• Mandatory step. • It should be the last step of the variant.	This process step has activities to replicate the approved vendor information into SAP ERP using an SAP Cloud Platform integration flow. It also sends out notification to all the parties involved about the result and also send a welcome email to the vendor.

A process step can have customizable properties and they could determine the outcome of the process step. For example, the Approval step can be reused multiple time and based on these properties the approver is determined. Please see Table 2 for more details.

Table 2. Process Step Properties.

Process Step	Properties	Detailed Description
Create User for Vendor	Vendor Creation Mode	Vendor creation mode (Accounting, Purchasing, Centrally and General) determines the kind of data that will be captured for the vendor. Accounting vendor = General data + Accounting data Purchasing vendor = General data + Purchasing data Centrally = General data + Accounting data + Purchasing data General = General data
	Department Name	Name of the department who is responsible to create a user for the vendor in the identity provider system. This value will be matched in the Determine Approver business rule to determine the agent/team who will process the task.

Register New Vendor	Role Name	Maintain who will fill the basic vendor data. If you want the vendor to fill the data, then maintain it as **Vendor**. Otherwise maintain the team that will perform this activity and this value will be matched in the Determine Approver business rule to determine the agent/team who will process the task.
Enrich Vendor Details	Vendor Creation Mode	Vendor creation mode (Accounting or Purchasing) determines the kind of data that will be captured for the vendor. Maintain **Accounting** if you want to enrich accounting data. In such case, the task will only show accounting related data. Maintain **Purchasing** if you want to enrich purchasing data. In such case, the task will only show purchasing related data.
	Role Name	Role of the person who can enrich the respective data. This value will be matched in the Determine Approver business rule to determine the agent/team who will process the task.
Additional Approver	Vendor Creation Mode	Vendor creation mode (Accounting or Purchasing) determines the kind of data that needs to the approved for the vendor. Maintain **Accounting** if the accounting data needs approval. In such case, the task will only show accounting related data. Maintain **Purchasing** if the purchasing data needs approval. In such case, the task will only show purchasing related data.
	Role Name	Role of the person who can approve the respective data. This value will be matched in the Determine Approver business rule to determine the agent/team who will process the task.

The process has attributes and these attributes are available in process visibility to search approval process instances and to define process performance indicators. Please see Table 3 for more details

Table 3. Process Attributes.

Process Attributes	Detailed Description
Vendor Name	Vendor Name
Vendor Creation Mode	Vendor Creation Mode
Vendor Number	Vendor Number
Country	Country
Company Code	Company code
Purchase Organization	Purchase Organization
Decision	Decision
Account Group	Account Group

The following (sample) context used to start the process:

```
{
    "sRequestId": 1594289718,
    "sRequesterName": "Requester Name",
    "sRequesterEmployeeId": "123456",
    "sRequestDateAndTime": "Jul 9, 2020, 3:45:27 PM",
    "sRequesterContactNumber": "00127162234234",
    "sRequesterEmail": "email@domain.com",
    "sVendorFName": "Vendor Inc.",
    "sVendorLName": "",
    "sVendorType": "Purchasing",
    "sAccountGroup": "0012",
    "sVendorContactNumber": "0012491234567890",
    "sVendorEmail": "email@domain.com"
 }
```

Process Variants

A process variant consists of multiple process steps configured by a line of business expert. It is possible to create multiple variants of the same process. For example, if the accounting group 0012 or 0013 then invite vendor to fill in the basic date or if the vendor is used for general purposes then no approvals are required, etc.

Please refer help documentation about how to import content packages and configure a process variant.

Typical Variants you can create

General Purpose Vendor

If you want to maintain a vendor with only the General Data (like address, contact details, etc.), then you can add (drag-drop from the process step list) the following process steps.
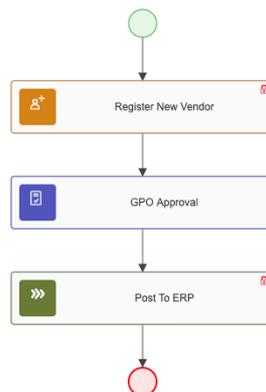

The general data is captured by an internal team member followed by a task for GPO approval. As soon as the GPO approves the information captured, the vendor is created in SAP ERP. If the GPO approval is not necessary, you could remove that as well like the below variant. In such case, as soon as the general data is captured and submitted, the vendor is created in SAP ERP.

If the organization wants the vendor to fill-in the general data, then the Create User for Vendor step can be added to the process. This make sure that a user is created for the vendor, and the credentials can be shared with the vendor.

By providing the appropriate step property, you can also influence how the business rule can determine the agent for the tasks within those steps. Refer to Table 2 for the step properties.
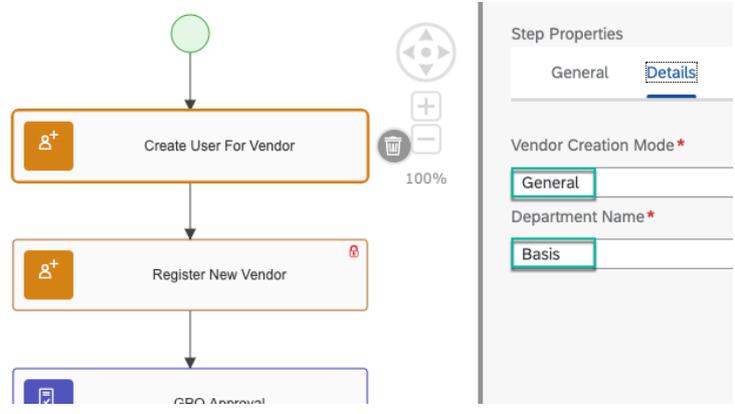

Accounting Vendor

If the accounting details of the vendor (like company code, cash management group, interest calculation, withholding tax, payment data, etc.) should be captured along with the general data then the enrichment process step shall be added. Rename the enrichment step as required and configure its property to **Accounting** for vendor creation mode (refer Table 2 for the property). One or more approval step from the accounting department can also be added, if required.

As a different variant, the vendor can be invited to fill-in the general data by adding the 'Create User for Vendor' step to the process.

Or if the GPO Approval is not required, that can be removed. There is a lot of flexibility on how the specific process variant can be configured.
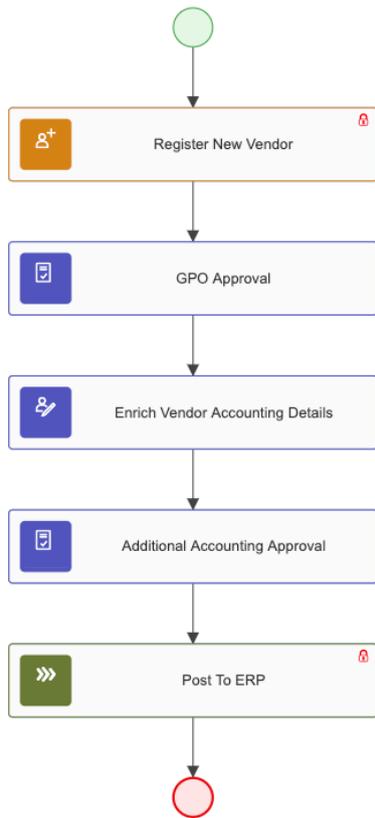
Purchasing Vendor

If the purchasing details of the vendor (like purchase org, terms of payment, partner functions, etc.) should be captured along with the general data then an enrichment process step shall be added. Rename the enrichment step as required and configure its property to **Purchasing** for vendor creation mode (refer Table 2 for the property). One or more approval step from the purchasing department can also be added, if required.
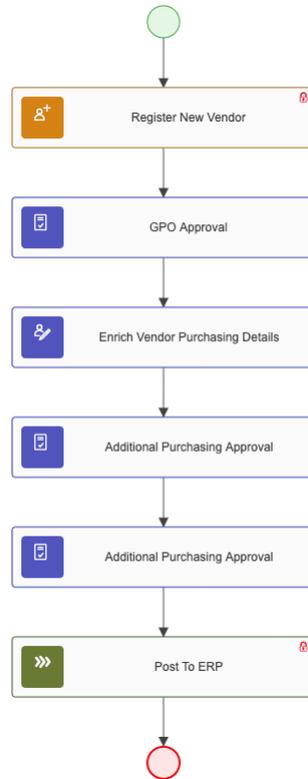
Centrally Available Vendor

If all the information about the vendor (general data, accounting data, purchasing data) needs to be captured, then the 'Enrich Vendor Details' step can be added for enrichment of purchasing and accounting details.
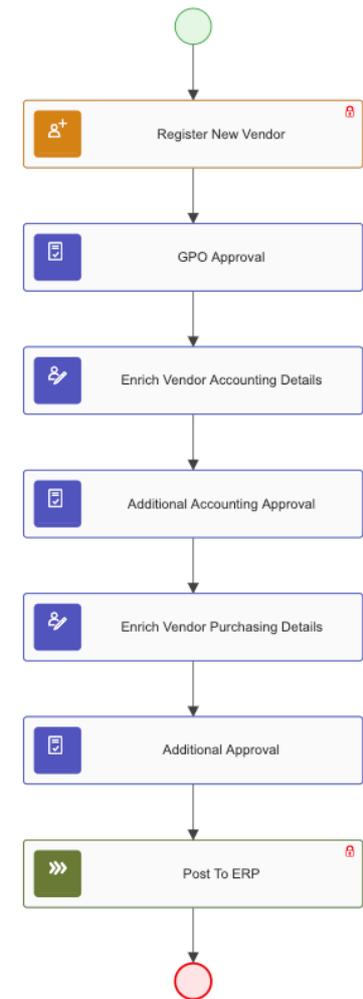
Import Vendor Onboarding Content and Configure Process Variants

1. Import content package Vendor Onboarding Process. Please refer the standard help document about how to import a content package.

2. Open content package Vendor Onboarding in Flexibility Cockpit and click Process Variants tile.

3. Click New Process Variant.

4. Enter Name of the new Process Variant (ex, Purchasing Vendor) and select "Vendor Onboarding" as Process.

5. Click Create button.

6. Click the newly created Process Variant tile to save and activate the process variant.

7. The Process Variant has a default implementation with five steps to create Accounting Vendor.

8. Configure Step Property for Register New Vendor process step – "Role Name" (Refer to Table 2 for details).

9. Configure Step Property for Enrich Vendor Details process step – "Vendor Creation Mode" as Purchasing and appropriate "Role Name" (Refer to Table 2 for details).

10. Configure Step Property for Additional Approval process step – "Vendor Creation Mode" as

Purchasing and appropriate "Role Name" (Refer to Table 2 for details).

11. It is possible to add Additional Approval steps to a process variant. Drag and drop the Approval step where required and update the name and properties.

12. Save and Activate the variant. A successful activation will create a new workflow definition in the account that can be viewed in the Monitor Workflows – Workflow Definition app in SAP Fiori Launchpad.

13. Update the Determine Approver Policy and make sure the Role Name used in the variant will resolve to an approver from the rule.

14. Update the Determine Process Variant Policy and include the newly created workflow definition ID to the rule.

Decisions & Policies

Decisions allow to encapsulate the business logic from core applications and supports the reuse of business rules across different business processes. Decisions enable customers to adopt changes in processes without changing the underlying workflows or application logic. SAP Cloud Platform Workflow Management has decision management capabilities that enables customers to centrally manage all decisions. Please go through the Decision Management capabilities in SAP Workflow Management.

Vendor Onboarding enable customers to flexibly configure decisions to gain flexibility to

1. Determine process variant.
2. Perform (optional) business validation.
3. Determine approval task due date.
4. Determine Approvers

Determine Process Variant

It is possible to configure different Process Variant for Vendor Onboarding using conditions modeled using the attributes of the Vendor Creation Mode

Rule Service: Determine Process Variant

Input: Vendor Creation Mode (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Account Group	String	Accounting group where the vendor has to be created.
Vendor Classification	String	Vendor creation mode (Accounting, Purchasing, Centrally, or General)

Output: Process Variant Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Workflow Definition ID	String	A preconfigured Workflow Definition Id. The value of workflow definition id will be available in Monitor Workflows - Workflow definitions application after activation of a Process Variant of type Vendor Onboarding.

Ruleset

To determine Process Variants the following rule set is executed:

1. Process Variant Determination Policy: Policy to determine the process variant based on vendor creation mode and accounting group.

   Rule Definition: Determine Process Variant

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Where used

SAPUI5 Application in SAP Fiori Launchpad: On submitting a request to create a new vendor using the Vendor Onboarding app, the determine process variant decision is called. Based on the response the appropriate process variant is automatically started.

Perform Additional Validation

With this decision, it is possible to add any business-specific validation while enriching the vendor details. For example, you can enable/disable the cloud application for a specific purchase organization or make certain fields mandatory for certain country or account group.

Rule Service Name: Perform Additional Validation

Input: Validation (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Country Key	String	Country ISO key. Example: DE, IN, AT, FR, US, UK, etc.
Vendor Creation Mode	String	Vendor creation mode (Accounting, Purchasing, Centrally, or General).
Account Group	String	Accounting group where the vendor has to be created.

Output: Additional Validation Messages (Table)

Validate Vendor attributes with various attributes.

ATTRIBUTE	TYPE	DESCRIPTION
Field ID	String	The ID of the field in the UI which corresponds to the validation result. Use value help to choose the field ID while defining the rule.
Message	String	The user defined message which will be shown in the UI. Example, "Enter Postal Code".

Rule Definition

Used to perform additional validation for the accounting group. If such validations are not required, then the decision table can be kept empty.

Where used

SAPUI5 app in My Inbox tasks: The rule is called from the SAPUI5 tasks for Register Vendor and Enrichment tasks. If the rule returns with validation messages, the user will not be able to submit the task.

Agent Determination

To determine the approver or agent to work on user tasks this business rule can be configured. The determination process is carried out at each process level to determine the task owner of each task in a process step to carry out the approval process.

Input and output

Rule Service Name: Determine Approvers

Input: Vendor Information (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Account Group	String	Accounting group where the vendor has to be created.
Country	String	Country of vendor.
Department	String	Role Name of the approver like Admin, Clerk. This should match the property provided in the variant configuration. Refer to Table 2 in this document for the steps and their properties.
Vendor creation mode	String	Vendor creation mode (Accounting, Purchasing, Centrally, or General).

Output: List of Approvers (Table)

ATTRIBUTE	TYPE	DESCRIPTION
Approver Group	String	A user group in SAP Cloud Platform who can approve a step in the process. You can provide either user group or user id or both.
Approver Email	String	Email address of the approver to whom the task notification will be sent. You can add multiple email addresses using a comma separated value.
Task Due Duration	Number	The duration target by which the user task needs to be completed. Used along with the unit of time.
Unit of Time	String	Unit of time of due duration like minutes, hours, days, etc.
Approver	String	User ID of the individual approver. You can add multiple user ID using a comma separated value. You can provide either user group or user id or both.

Rulesets

To determine approvers two Rulesets are executed one after the other.

1. Due Date Determination Policy: Policy to determine the due date for each user task.

   Rule Definition: Determine Task Due Date

2. Approver Determination Policy: Determine approver for each approval step in the process.

   Rule Definition: Determine Approvers

Decision Table

If				Then		
Vendor information.Ac...	Vendor information.Co...	Vendor information.De...	Vendor information.Ven...	User ID	User Group	Email
'0012'	'DE'	'GP'	'General'		'GPO'	'f
'IN06'	'DE'	'GP'	'General'		'GPO'	'f
	'DE'	'ITTeam'			'ITTeam'	's
'0012'	'DE'	'Clerk'	'Accounting'		'Accounting'	'r
'IN06'	'DE'	'Clerk'	'Accounting'		'Accounting'	'r
'0012'	'DE'	'Clerk'	'Purchasing'		'Purchasing'	'v

Where used

Process Steps: Create User for Vendor, Register New Vendor, GPO approval, Enrich Vendor Details, Additional Approval.

Process Visibility

Process visibility enable Process Owners and Process Operators to gain real time visibility on processes and key process performance indicators. Process visibility capability in SAP Cloud Platform Workflow Management enable customers gain out of the box process visibility into their deployed processes. Please refer help documentation for more details.

Vendor Onboarding

Vendor Onboarding process content package provide out of the box visibility on all the process variants in SAP Cloud Platform Workflow Management. A process owner or line of business expert will be able to enhance the visibility scenario.

Configure Visibility Scenarios

1. Go to Process Flexibility Cockpit.
2. Select Vendor Onboarding tile.
3. Click Visibility Scenarios tile.
4. Select Vendor Onboarding scenario.

Please go through help documentation how to model a visibility scenario.

Access Process Workspace

1. Go to Process Flexibility Cockpit
2. Select Vendor Onboarding
3. Click Live Process Insights Vendor Onboarding
4. User will see the below detailed process visibility screen.
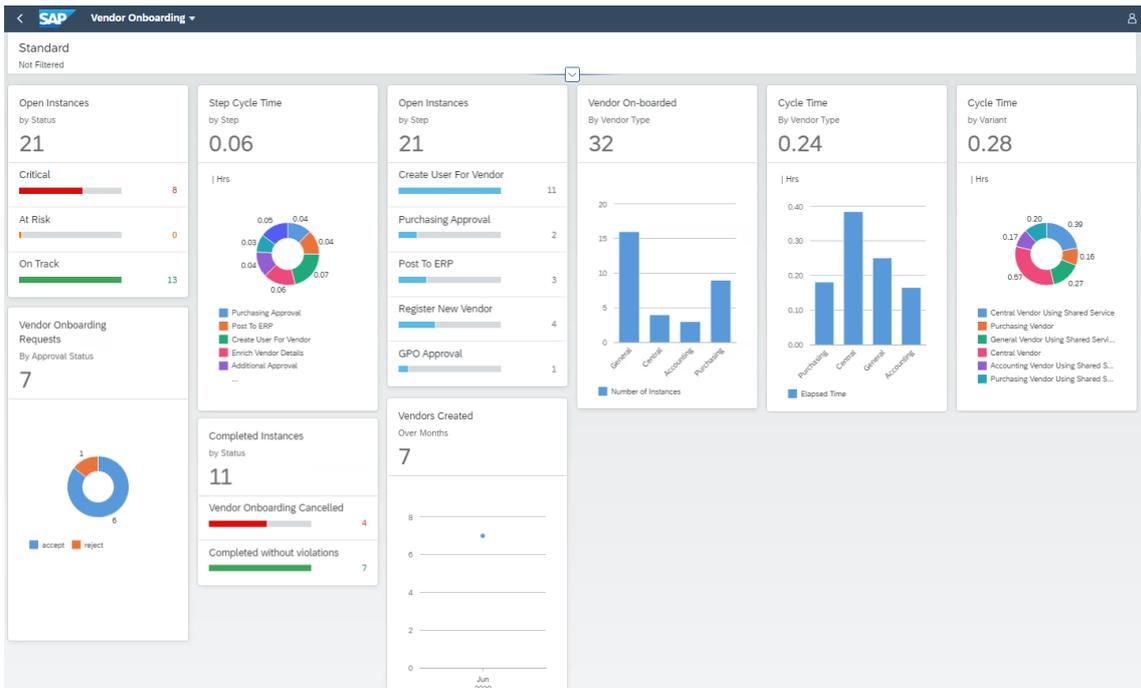
Please go through [help documentation](#) how to access process workspace.