

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Configuration Guide

Ariba Purchase Requisitions Approval using SAP Build Process Automation or SAP Workflow Management

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Overview

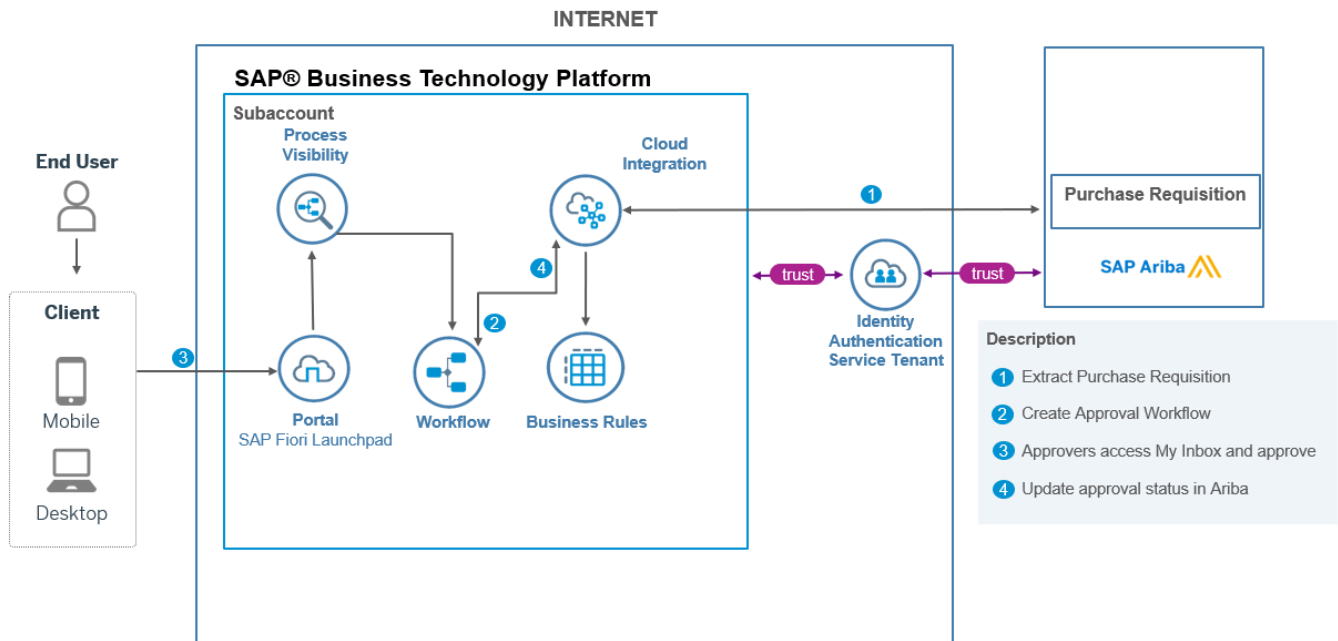
This document provides information about configuration steps to consume the content package **Ariba Purchase Requisitions Approval**.

This content package enables SAP Ariba customers to approve or reject the purchase requisitions using SAP Build Process Automation or SAP Workflow Management without additional development in SAP Ariba.

Salient features of this content package are:

- Plug and Play with SAP Ariba without additional development.
- Pre-configured process steps for approval
- Automatic email notification to parties involved
- Agent/approver determination using Business Rules or external service
- Pre-built integration content to process Purchase Requisitions
- Out-of-the-box visibility into key process performance indicators

Ariba Purchase Requisition Approval



Workflow Package Artifacts

A workflow package consists of process templates, process steps, user interface, 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 **Ariba Purchase Requisitions Approval** package contains the following process template:

AribaPurchaseRequisitionApproval – Establish an approval process for a Purchase Requisition created in SAP Ariba. It primarily includes the process steps for approval and update of the document back in SAP Ariba, in an 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 activities to determine the approvers, approval task, email notifications, and handle the approval result. **Table 1** represents the list of process steps/sub flows available to be used in **Ariba Purchase Requisition Approval**.

Table 1. Process Steps

Process Steps	Cardinality	Detailed Description
Purchase Requisition Approval	1.. N	This step/sub flow has activities to initiate and complete one level of approval for a Purchase Requisition that requires external approval. Based on the number of approval levels required, this step can be configured and re-used multiple times. The step can be renamed to reflect the appropriate approval roles, for example, 'Cost Center Approval', 'Quality Check', 'Global Purchasing Approval'. The approver is determined based on various conditions using a business rule and the step level attributes. The approvers are automatically notified via mail about the approval task.
Update Ariba	1..1	This step/subflow updates the Ariba system with the approval decision (approve/reject).

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

Table 2. Process Step Properties

Process Step	Properties	Detailed Description
Purchase Requisition Approval	Step Name	Based on the name of the approval step, the approver is determined using a business rule. Default value is CostCenterApproval, and it can be configured to any approval step name provided the same name is configured in the business rule.

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
RequisitionId	Purchase Requisition Document ID coming from SAP Ariba
Requester	The one who interested in purchasing items
AccountCategory	Account Category of the line item
CreateDate	Date of creation of request
TotalCost	Total cost of all line items
Currency	Currency of transaction
Region	Region from where the purchase requisition is created
SubmitDate	Date of Submission of request
Supplier	Supplier for procuring the line items
CompanyCode	Company code of the purchase requisition created
IsAdHoc	Determines if the line item is catalog or non-catalog item

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 based on the business needs.

Please refer [help documentation](#) about how to import content packages and configure a process variant.

The screenshot shows the configuration interface for a process variant named "Default Ariba PR Approval". At the top, there are buttons for "Undo", "Redo", "Save", and "Activate". Below the title, there is a navigation pane on the left with "Available Steps (2)":

- Purchase Requisition...**: Based on Rule-based configuration, one or more approvers will get...
- Update Ariba**: Updates the Ariba system with the approval decision (approve/reject).

The central area displays a vertical flowchart with four steps:

- Cost Center Approval** (checked)
- Quality Check** (checked)
- Global Purchasing Approval** (checked)
- Update Ariba** (locked)

On the right, the "Process Variant Properties" panel shows:

- Name ***: Default Ariba PR Approval
- Process**: AribaPurchaseRequisitionApproval
- Description**: Approval of Purchase Requisitions coming from SAP Ariba

Import Ariba Purchase Requisition Approval and Configure Process Variants with SAP Build Process Automation

1. In the [SAP Build Process Automation Store](#), search for live process package Ariba Purchase Requisition Approval and import the same. This content package has one process template and process variant(s) for that template.
2. In the Application Development [Lobby](#), click to open the package with name Ariba Purchase Requisition Approval. This opens the package in a new tab/window.
3. Click the + icon next to the process template to create a new process variant.
4. Enter Name of the new Process Variant (ex, Two Step Approval).
5. Click the newly created Process Variant tile to save and activate the process variant.
6. The process variant has a default implementation with two steps and at least one level of approval.
7. It is possible to remove steps like “Approval for Ariba Purchase Requisition Approval” from a process variant only if there are multiple approvals. Please note that whether a step is mandatory or optional, and how many a times any step can be used within a variant, are dependent on the constraints defined on the process steps.
8. Save and activate the variant. A successful activation will create a new workflow definition in the account that can be viewed in the [Monitor Processes and Workflows app](#).

Import Ariba Purchase Requisition Approvals Package and Configure Process Variants with SAP Workflow Management

1. Import content package Ariba Purchase Requisition Approvals. Please refer the standard help document about [how to import a content package](#). This content package has one process template and process variant(s) for that template are required.
2. To create a new variant, open content package Ariba Purchase Requisition Approvals in Flexibility Cockpit and click on Process Variants tile.
3. Click New Process Variant.
4. Enter the Name for the new Process Variant and select “AribaPurchaseRequisitionApproval” as Process.
5. Click on Create button.
6. Click the newly created Process Variant tile to save and activate the process variant.
7. The default Process Variant has three steps of approval required - Cost Center Approval, Quality Check and Global Purchasing Approval, with the final mandatory step to post the document back to SAP Ariba.
8. (Optional) For each approval step, you can edit the step properties “Step Name”
9. 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 application in the Fiori Launchpad.

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 Build Process Automation or SAP Workflow Management has business rules capabilities that enables customers to centrally manage all decisions. Please go through the [business rules capabilities](#) in SAP Build Process Automation or SAP Workflow Management.

Ariba Purchase Requisition Approval enables customers to flexibly configure decisions to gain flexibility to

1. Determine Approvers (Cost Center, Quality Check and Global Purchasing)
2. Determine Approver Determination Strategy
3. Determine Process Administrator

Please go through [Manage Decisions](#) application in SAP Build Process Automation or SAP Workflow Management.

Determine Cost Center Line Item Approver

With this decision, it is possible to determine the Cost Center approvers based on especially the cost center of the line items in the incoming purchase requisitions. This decision includes two ruleset policies, with a rule to loop through the collection of line items and then determine the final list of cost center approvers respectively.

Rule Service Name: Determine Cost Center Line Item Approver

Input: Purchase Requisition Header Details (Structure data type), Purchase Requisition Line Item Lists (Table type)

Purchase Requisition Header Details:

ATTRIBUTE	TYPE	DESCRIPTION
Requester	String	User who places the buying request
Currency	String	Transactional Currency
Total Cost	Number	Total Cost of purchased items
Region	String	Region
Submit Date	Timestamp	Submission date of Purchase Requisition
Create Date	Timestamp	Creation Date of Purchase Requisition
Company Code	String	Company Code

Purchase Requisition Line-Item Lists:

ATTRIBUTE	TYPE	DESCRIPTION
Price	String	Price
Purchase Group	String	Purchase Group
Amount	Number	Amount

Account Category	String	Account Category
Commodity Code	String	Commodity Code
Common Commodity Code	String	Common Commodity Code
Supplier Name	String	Supplier Name
Supplier Id	String	Supplier Id
Quantity	Number	Quantity
Unit Of Measure	String	Unit Of Measure
Supplier Part Number	String	Supplier Part Number
Is Price Modified By User	Boolean	Is Price Modified By User
Supplier Location	String	Supplier Location
Is Adhoc	Boolean	AdHoc or catalog item
Item Category	String	Item Category
Cost Center	String	Cost Center of Line Item
Bought from Preferred Supplier	Boolean	Bought from Preferred Supplier
Price Currency	String	Unit Price currency of line item
Amount Currency	String	Original currency of line item's total cost

Output: Approver Final List (Table)

Contains list of approvers

ATTRIBUTE	TYPE	DESCRIPTION
Task Due Duration	Number	The duration target by which the user task needs to be completed. Used along with the unit of time
Approver User Id	String	ID or logon name of the approver used in the identity management system
Approver Group Id	String	Group Id from the identity management system
Approver Email	String	Email ID of approver
Approval Required	Boolean	Approval Required? If false, the request will be auto approved
Unit of Time	String	Unit of time of due duration like minutes, hours, days, etc.
Due Duration Reference Event	String	Reference to an event in the workflow to determine the target of the user task
Task Name	String	Reference to the role of the task owner

Rulesets

To determine cost center for all the line items in a purchase requisition, following **Ruleset policies** are executed.

- A) **Cost Center Owner Approver Determination Policy:** Policy to determine cost center approvers for each line items and it consists of two rules executed sequentially with orchestration policy

Priority: 1.0

Rule Definitions:

- a) **Determine Task Due Date:** Rule to determine the due date in the approval step of Ariba Purchase Requisition Approvals.
- b) **Determine Cost Center Owner Approvers**

Where used

Step: Purchase Requisition Approval

- B) **Loop Rule Execution Policy:** This Ruleset policy includes the loop rule that loops through the collection of line items within each purchase requisitions to determine cost center approvers.

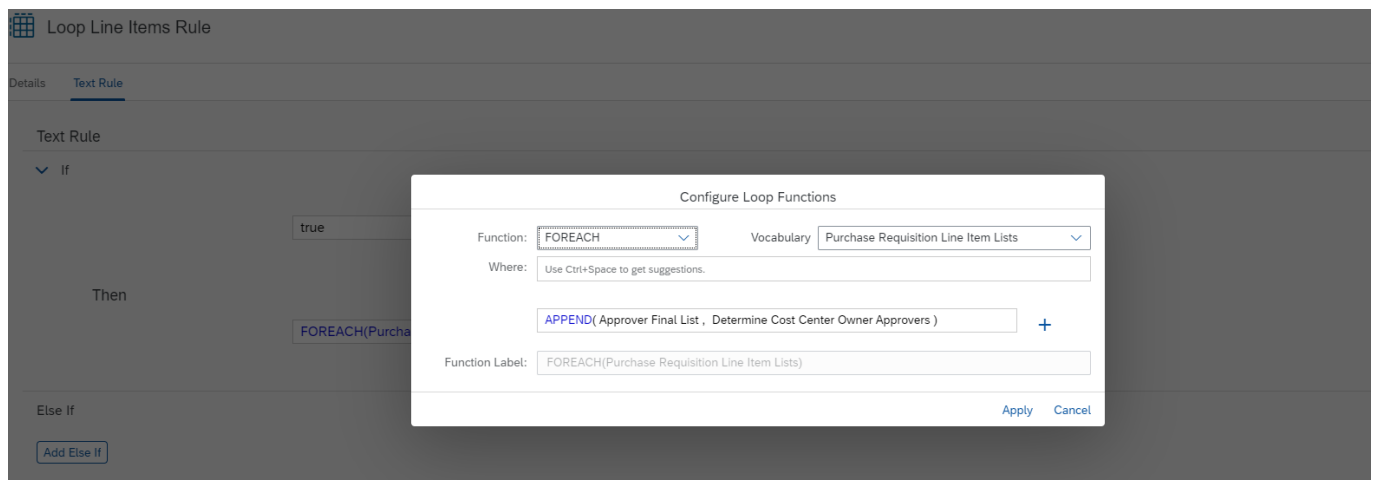
Priority: 50.0

Rule Definitions:

- a) **Loop Line Items Rule:** This is a text rule for **execute operations**, modeled for looping through the collection/array of line items using the **FOREACH** function to determine the list of approvers.

To know how to 'Model a Text Rule for Execute Operations', refer to the official help guide [here](#)

Clicking on FOREACH loop function, will open the configuration popup as below:



Where used

Step: Purchase Requisition Approval

Determine Quality Check Header Approver

With this decision, it is possible to determine the Quality Check approvers (shared service center colleagues) based on the header data of the incoming purchase requisitions.

Rule Service Name: Determine Quality Check Header Approver

Input: Purchase Requisition Header Details (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Requester	String	User who places the buying request
Currency	String	Transactional Currency
Total Cost	Number	Total Cost of purchased items
Region	String	Region
Submit Date	Timestamp	Submission date of Purchase Requisition
Create Date	Timestamp	Creation Date of Purchase Requisition
Company Code	String	Company Code

Output: Approver Final List (Table): Contains list of approvers

ATTRIBUTE	TYPE	DESCRIPTION
Task Due Duration	Number	The duration target by which the user task needs to be completed. Used along with the unit of time
Approver User Id	String	ID or logon name of the approver used in the identity management system
Approver Group Id	String	Group Id from the identity management system
Approver Email	String	Email address of approver
Approval Required	Boolean	Approval Required? If false, the request will be auto approved
Unit of Time	String	Unit of time of due duration like minutes, hours, days, etc.
Due Duration Reference Event	String	Reference to an event in the workflow to determine the target of the user task Valid values are: Workflow - relative to the beginning of this approval request Step - relative to the beginning of this process step Task - relative to this specific approval task
Task Name	String	Reference to the role of the task owner

Ruleset

To determine Quality Check Approver Groups, following **Ruleset policy** which encompasses two rules is executed.

Quality Check Approver Determination Policy: Policy to determine Quality Check approver groups and consists of two rules executed sequentially with orchestration policy

Rule Definitions:

- a) **Determine Task Due Date:** Rule to determine the due date in the approval step of Ariba Purchase Requisition Approvals.
- b) **Determine Quality Check Approvers**

Where used

Step: Purchase Requisition Approval

Determine Global Purchasing Header Approver

With this decision, it is possible to determine the Global Purchasing approver groups based on the header data of the incoming purchase requisitions.

Rule Service Name: Determine Global Purchasing Header Approver

Input: Purchase Requisition Header Details (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Requester	String	User who places the buying request
Currency	String	Transactional Currency
Total Cost	Number	Total Cost of purchased items
Region	String	Region
Submit Date	Timestamp	Submission date of Purchase Requisition
Create Date	Timestamp	Creation Date of Purchase Requisition
Company Code	String	Company Code

Output: Approver Final List (Table): Contains list of approvers

ATTRIBUTE	TYPE	DESCRIPTION
Task Due Duration	Number	The duration target by which the user task needs to be completed. Used along with the unit of time
Approver User Id	String	ID or logon name of the approver used in the identity management system
Approver Group Id	String	Group Id from the identity management system
Approver Email	String	Email ID of approver
Approval Required	Boolean	Approval Required? If false, the request will be auto approved

Unit of Time	String	Unit of time of due duration like minutes, hours, days, etc.
Due Duration Reference Event	String	Reference to an event in the workflow to determine the target of the user task
Task Name	String	Reference to the role of the task owner

Ruleset

To determine Global Purchasing Approver Groups, following **Ruleset policy** which encompasses two rules is executed.

Global Purchasing Approver Determination Policy: Policy to determine Global Purchasing approver groups and consists of two rules executed sequentially with orchestration policy

Rule Definitions:

- a) **Determine Task Due Date:** Rule to determine the due date in the approval step of Ariba Purchase Requisition Approvals.
- b) **Determine Global Purchasing Approvers**

Where used

Step: Purchase Requisition Approval

Approver Determination Strategy

This decision is used in the approval process step to determine the Approver's source strategy based on step name. For example, if the approvals step name is 'CostCenterApproval' or 'QualityCheck' or 'GlobalPurchasingApproval', approvers will be determined by Business Rules, otherwise from External Service.

Rule Service Name: Determine Approver Determination Strategy

Input: Workflow Step (Structure type)

ATTRIBUTE	TYPE	DESCRIPTION
Approval step name	String	Approval Step from workflow

Output: Agent determination (Structure type)

ATTRIBUTE	TYPE	DESCRIPTION
Determination Strategy	String	Source from where task owner can be determined, can either be "Business Rule" or "External Service"
Rule Service Id	String	Rule service which will call the rule to determine source
Revision	String	Revision of the rule service

Ruleset

Policy for approver source determination strategy type. It can be 'Business Rules' or 'External Service'. Following **Ruleset policy** is executed.

Policy For Approver Determination Strategy: This policy consists of a text rule to determine the source of approvers which can be 'Business Rules' or 'External Service' based on the approval step name.

Rule Definitions: Approver Determination Strategy

Important Note: Refer to **Appendix** to understand how to configure and implement approver determination strategy based on 'External Service'.

Determine Process Administrator

This decision is used to determine the process administrators when the actual approvers during any process step are not determined.

Rule Service Name: Determine Process Administrator

Input: Purchase Requisition Header Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Requester	String	User who places the buying request
Currency	String	Transactional Currency
Total Cost	Number	Total Cost of purchased items
Region	String	Region
Submit Date	Timestamp	Submission date of Purchase Requisition
Create Date	Timestamp	Creation Date of Purchase Requisition
Company Code	String	Company Code

Output: Process Admin Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Administrator Email Address	String	Email List (comma separated)
Administrator User IDs	String	User ID List (comma separated)
Administrator Group IDs	String	Group ID List (comma separated)

Rulesets

To determine administrator, the Ruleset includes the rule to notify when no approver is determined.

Administrator Determination Policy: Policy to determine the administrators.

Rule Definition: Determine Process Administrator

Where used

Step: **Purchase Requisition Approval**

Process Visibility

Process Visibility capability in SAP Build Process Automation or SAP Workflow Management enables Process Owners and Process Operators to gain real time visibility on processes and key process performance indicators. It also enables customers gain out of the box process visibility into their deployed processes. Please refer [help documentation](#) for more details.

Ariba Purchase Requisitions Approval package provides out of the box visibility on all the deployed process variants in SAP Build Process Automation or SAP Workflow Management. The line of business expert user can further enhance the visibility scenario to suit the business requirements if needed.

Configure Visibility Scenarios in SAP Build Process Automation

1. Go to the Application Development Lobby.
2. Select Ariba Purchase Requisition Approval Project.
3. Click to open **Ariba Purchase Requisition Approval** scenario.
4. Click Activate button.

Please go through the [help documentation](#) on how to configure the visibility scenario.

Configure Visibility Scenarios in SAP Workflow Management

1. Go to Process Flexibility Cockpit.
2. Select package “Ariba Purchase Requisitions Approval” tile.
3. Click scenario “Ariba Purchase Requisition Approvals”

Please go through [help documentation](#) on how to model a visibility scenario.

Access Process Workspace in SAP Build Process Automation

1. The process visibility scenario can be accessed using SAP Launchpad Service. Refer to the help document for [creating UI applications on central SAP Fiori Launchpad](#) for SAP Build Process Automation.
2. Once you have added the applications process Visibility Scenario Instances (with app ID com.sap.spa.pv.instances) and Visibility Scenario Dashboard (with app ID com.sap.spa.pv.ovp), follow the below steps to add a tile to access the Ariba Purchase Requisition Approval dashboard.
 - a. Navigate into “Visibility Scenario Dashboard”.
 - b. On the screen that opens, choose Create a Local Copy.
 - c. To use custom texts, choose Edit and adapt the texts in the General section.
 - d. You can use a custom title, description, and subtitle for the tile.
 - e. Choose the Navigation tab.

- f. Under the Intent section, ensure that the value in the Action tab is unique for every application.
- g. Under the Parameters section, provide the following:

Parameter Name	Parameter Value
Name	scenariold
Default Value	com.sap.content.aribapraprovals
Required	Toggle to Yes

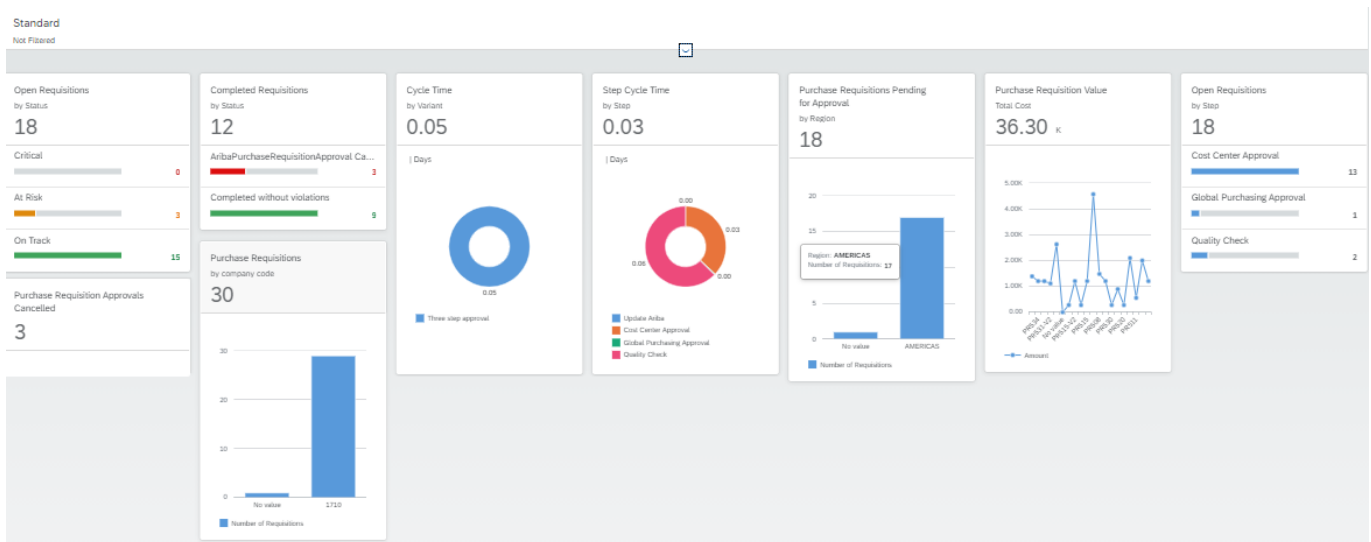
- h. Choose Save.
- i. Assign the local copy to a group and make sure that they're visible to users. For more information, see [Assign Apps to a Group and to a Catalog](#) and [Assign Content to a Role](#).

3. Once created, select app that corresponds to "Ariba Purchase Requisition Approval".
4. User will see the process visibility dashboard.

Access Process Workspace in SAP Workflow Management

1. Go to Process Flexibility Cockpit
2. Select package **Ariba Purchase Requisitions Approval**
3. Click Live Process Insights **Ariba Purchase Requisition Approvals**

The Process Visibility workspace shall load the configured potential performance indicators.



Please go through [help documentation](#) to know more about Process Workspace.

Appendix

Approver Determination Strategy – External Service

The process content provides an option to determine approvers using an alternative strategy, i.e. External Service instead of Business Rule.

To leverage this strategy, the approval process step has a provision to call an Integration Flow with the following configuration. This Integration Flow needs to be implemented as per your business requirement.

Destination	CPI [Refer to Setup Guide]
CPI Adapter	HTTP
Endpoint	/comsapcontentaribapapproval
HTTP Method	POST
Request Payload Type	Application/json
Request Payload Structure	<pre>{ "Vocabulary": [{ "PRLineItemList": <Purchase Requisition Item Details>, "PRHeaderDetails": <<Purchase Requisition Header Details> }] }</pre>
Response Payload Structure	<pre>{ "Result": [{ "ApproverFinalList": [{ "DueDurationReference": < "Task" OR "Workflow" >, "TaskDuration": <Duration units (integer/number)>, "ApproverEmail": <comma separated email ids>, "UnitOfTime": < "h" OR "m" OR "Y" OR "M" OR "D" >, "TaskName": "<from the business rules>", "ApproverUserId": <comma separated User Ids>, "ApproverGroupId": <comma separated user-group ids>, "ApprovalRequired": <Boolean value> }] }] }</pre>
Payload Type	Application / JSON