

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Configuration Guide

Non Operated Joint Venture Cash Call Approval using SAP Build Process Automation or SAP Workflow

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Overview

This document provides information about setting up the SAP Business Technology Platform account to consume the workflow content package **Non Operated Joint Venture Cash Call Approval**. The main audience of this document are technical IT/system administrators.

In joint venture accounting module, non-operator receives cash call/Billing invoice requests and invoice billings from operator of the venture. Non-operator logs these requests into the system and make the payment against it.

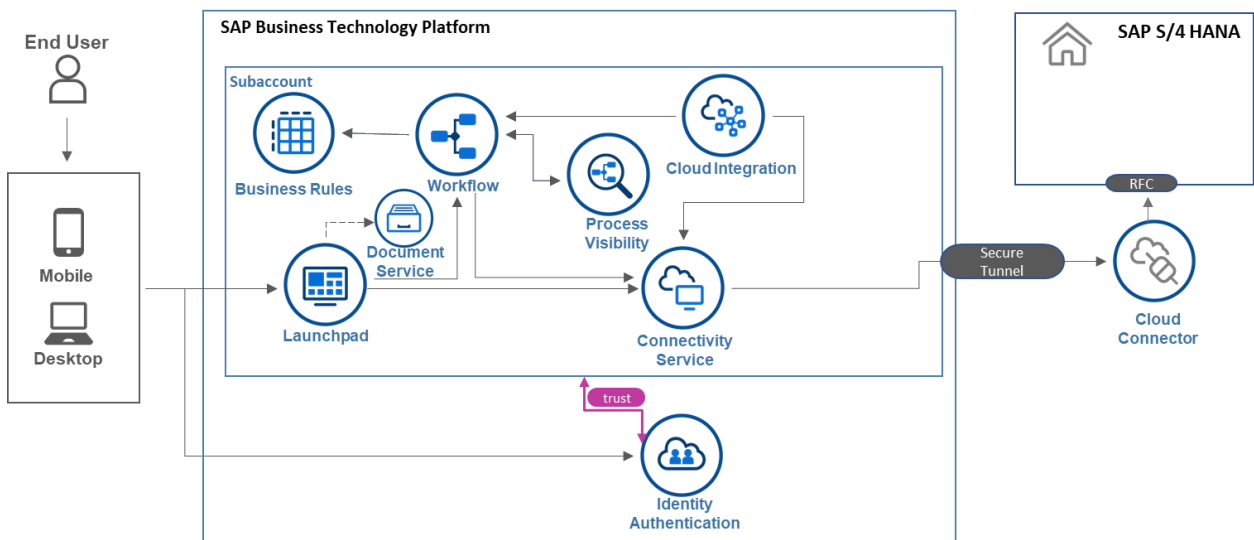
The standard Non-operator cash call/Billing invoice and invoice processes do not allow to route such requests to different internal approver(s) before requests are posted to the system.

This extension fills that void and allow to send cash call/Billing invoice and invoice requests to different approver(s).

Features

- Plug and Play with SAP S/4HANA without additional development.
- New Process variants can be configured in a no-code approach.
- Agent/approver determination using Business Rules or external service.
- Pre-built integration content to call SAP S/4HANA from SAP Build Process Automation or SAP Workflow Management
- Out-of-the-box visibility into key process performance indicators.

Solution Diagram



Artifacts

A package consists of process templates, process steps, 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 **Non Operated Joint Venture Cash Call Approval** package contains the following process template:

Non Operated Joint Venture Cash Call Approval– deals with approval of Cash Call on a Joint Venture scenario for Non Operators. The scenario covers both cash call and billing invoice.

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 activity to determine the approvers, approval task, notifications, and handle the approval result. **Table 1** represents the list of process steps/sub flows available to be used in **Non Operated Joint Venture Cash Call Approval**.

Table 1. Process Steps

Process Steps	Cardinality	Detailed Description
Technical Reviewer	1..1 = Mandatory step	Workflow for the Technical Reviewer to take the action on the Non-Operated Joint Venture.
FAL Approver	1..1 = Mandatory step	Workflow for the Technical Reviewer to take the action on the Non-Operated Joint Venture.
Post Joint Venture Document	1..1 = mandatory step	Post the Status of the Non-Operated Joint Venture and delete the batch entry from SAP S/4HANA Tables.

Table 2. Process Attributes.

Process Attributes	Detailed Description
Company Code	Company Code of the Joint Venture Non-Operated
Equity Group	Equity Group ID of the Joint Venture Non-Operated
Joint Venture	Joint Venture ID of the Joint Venture Non-Operated

Sample Context with Start Conditions

Invoice and Cash Call payloads are explained below.

Invoice can be of 2 types:

1. Venture
2. Operator

Invoice (for Venture):

```
{
  "cashCallDetails": {
    "companyCode": "4001",
    "docInformation": {
      "companyCode": "4001",
      "partner": "0000000002",
      "batchNumber": "AKPOSTMINV",
      "transDate": "20220110",
      "postingDate": "20220110",
      "postingPeriod": "01",
      "postingYear": "2022",
      "billingText": "",
      "refDoc": "",
      "cashCallKey": "4001_AKPOSTMINV_0000000002_Invoice",
      "cashCallType": "Net",
      "requestorID": "SAMPLE",
      "requestorEmail": "example@sample.com",
      "jointVenture": "002005",
      "jointVentureDescription": "Customer - Payer 1",
      "fundCurrency": "USD",
      "invoiceType": "VEN",
      "taxCode": "A0",
      "vendor": "0000100005",
      "processType": "Invoice",
      "exchangeRate": "1.00000"
    }
  },
}
```

```
"cashCallInformation": [  
  {  
    "jointVenture": "002005",  
    "jointVentureDescription": "",  
    "equityGroup": "EG8",  
    "equityName": "New Non_OP Venture2",  
    "partner": "",  
    "costCenter": "",  
    "wbs": "00000128",  
    "order": "",  
    "glAccount": "0005202300",  
    "fundCurrency": "USD",  
    "fcvalNet": "100.00",  
    "lcvalNet": "100.00",  
    "fcvalGross": "250.00",  
    "lcvalGross": "250.00"  
  },  
  {  
    "jointVenture": "002005",  
    "jointVentureDescription": "",  
    "equityGroup": "EG8",  
    "equityName": "New Non_OP Venture2",  
    "partner": "",  
    "costCenter": "JVA400113",  
    "wbs": "00000000",  
    "order": "",  
    "glAccount": "0005202000",  
    "fundCurrency": "USD",  
    "fcvalNet": "100.00",  
    "lcvalNet": "100.00",  
    "fcvalGross": "250.00",  
    "lcvalGross": "250.00"  
  }  
]  
}
```

```
}
```

Note: For the context without a start condition, the structure starts from "docInformation"

Note:

For "Partner" invoice type, the value for "InvoiceType" in the JSON structure will be "PAR".

Eg: "invoiceType": "PAR"

Cash Call:

Cash Call payload can be of 2 types:

1. Equity Group
2. Project Group

Cash Call (for Equity Group – with start condition)

```
{
  "cashCallDetails": {
    "companyCode": "4001",
    "docInformation": {
      "companyCode": "4001",
      "partner": "0000100005",
      "batchNumber": "AKPOSTMCC",
      "effectiveDate": "20220110",
      "postingDate": "20220110",
      "postingPeriod": "01",
      "operationalMonth": "012022",
      "cashCallKey": "4001_AKPOSTMCC_0000100005_Cash Call",
      "cashCallType": "Equity Group",
      "requestorID": "Sample",
      "requestorEmail": " example@sample.com ",
      "processType": "Cash Call"
    },
  },
  "cashCallInformation": [
    {
      "jointVenture": "002005",
```

```

    "jointVentureDescription": "",
    "equityGroup": "EG9",
    "jvFunction": "CCNP",
    "equityName": "New Non_OP Venture1",
    "opMonth": "",
    "partner": "0000010013",
    "project": "000000000",
    "costCenter": "",
    "wbs": "00000128",
    "order": "",
    "fundCurrency": "USD",
    "fundAmount": "200000.00",
    "localAmount": "200000.00",
    "glAccount": ""
  },
  {
    "jointVenture": "002007",
    "jointVentureDescription": "NEW OPERARED VENTURE8",
    "equityGroup": "EG9",
    "jvFunction": "CCNP",
    "equityName": "New Non_OP Venture1",
    "opMonth": "",
    "partner": "0000100005",
    "project": "000000000",
    "costCenter": "JVA400115",
    "wbs": "000000000",
    "order": "",
    "fundCurrency": "USD",
    "fundAmount": "300000.00",
    "localAmount": "300000.00",
    "glAccount": ""
  }
]
}

```

Note:

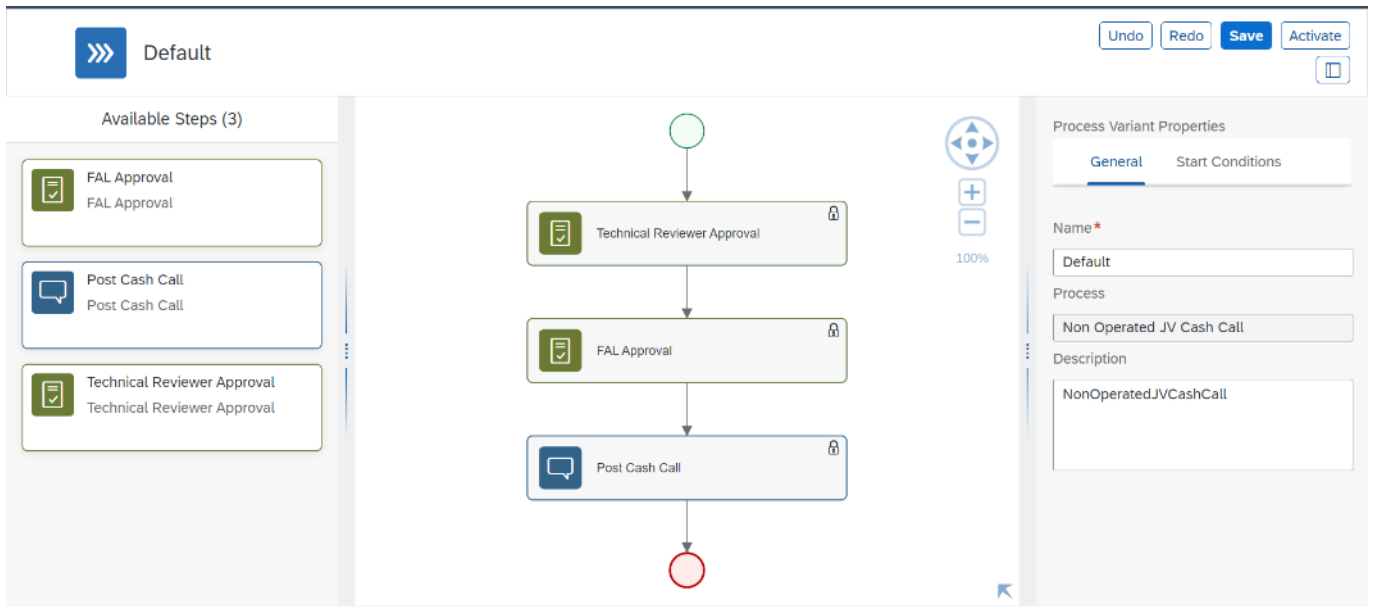
1. For the context without a start condition, the structure starts from "docInformation"
2. For "Project Group" Cash Call Type, the value for "cashCallType" in the JSON structure will be "Project Group".

Eg: "cashCallType": "Project Group"

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.

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



Default Variant

Import Non Operated Joint Venture Cash Call Approval and Configure Process Variants with SAP Build Process Automation

1. In the [SAP Build Process Automation Store](#), search for live process package Non Operated Joint Venture Cash Call 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 Non Operated Joint Venture Cash Call 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 Non Operated Joint Venture Cash Call 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 Non Operated Joint Venture Cash Call Approval and Configure Process Variants with SAP Workflow Management

1. In Process Flexibility Cockpit app, search for content package Non Operated Joint Venture Cash Call Approval and import the same. 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.
2. Open content package in Flexibility Cockpit and click Process Variants tile.
3. Click New Process Variant.
4. Enter Name of the new Process Variant (ex, default) and select “Non Operated Joint Venture Cash Call Approval” as Process.
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 Non Operated Joint Venture Cash Call 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 Workflows – Workflow Definition app in SAP 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.

Non Operated Joint Venture Cash Call Approval enable customers to flexibly configure decisions to gain flexibility to

1. Approver Determination Strategy

2. Determine Task Due Date
3. Determine Administrators
4. Determine Position
5. Determine Approvers

Approver Determination Strategy

Based on the business requirement approver can be determined by external service or business rules.

Rule Service Name: Approver Determination Strategy

Input:

Name	Label	Description	Business Data Type
CompanyCode	Company Code	Company Code to which non operated JV cash call belongs to.	String >
CostCenter	Cost Center	Cost Center to which non operated JV cash call belongs to.	String >
WBS	WBS	WBS to which non operated JV cash call belongs to.	String >
GLAccount	GL Account Number	GL Account number to which non operated JV cash call belongs to.	String >
ReleaseAmount	Release Amount	Release Amount of non operated JV cash call.	Number >
ApprovalStep	Approval Step	Approval Step	String >
Currency	Currency	Currency	String >

Output:

Name	Label	Description	Business Data Type
DeterminationStrategy	Determination Strategy	Approver Determination Strategy can either "Business Rule" or "External Service" depending on joint venture details.	String >

Rule Definition

Text Rule

if

Cash Call Details.Approval Step = 'Technical Reviewer'

Then

Determination Strategy: 'External Service'

Else If (1)

Cash Call Details.Approval Step = 'FAL Approver'

Then

Determination Strategy: 'External Service'

Else

Determination Strategy: 'Business Rules'

Determine Administrators

Determine administrators in case of any errors in fetching the approvers for Non Operated Joint Venture Cash Call Approval.

Rule Service Name: Determine Administrators

Input:

Name	Label	Description	Business Data Type
CompanyCode	Company Code	Company Code to which non operated JV cash call belongs to.	String >
CostCenter	Cost Center	Cost Center to which non operated JV cash call belongs to.	String >
WBS	WBS	WBS to which non operated JV cash call belongs to.	String >
GLAccount	GL Account Number	GL Account number to which non operated JV cash call belongs to.	String >
ReleaseAmount	Release Amount	Release Amount of non operated JV cash call.	Number >
ApprovalStep	Approval Step	Approval Step	String >
Currency	Currency	Currency	String >

Output:

Name	Label	Description	Business Data Type
Userid	User ID	User ID of the administrator.	String >
UserGroup	User Group	Group ID of the administrator.	String >
Email	Email	Email address of the administrator.	String >

Rule Definition

Approval Step	Email	User Group	User ID
= 'Technical Reviewer'	'v.arjun.kalaga@accenture.com'	'Admin_GroupId'	'KALAGAV'
= 'FAL Approver'	'v.arjun.kalaga@accenture.com'	'Admin_GroupId'	'KALAGAV'

Determine Approvers

Determine approvers for an approval step in Non Operated Joint Venture Cash Call Approval.

Rule Service Name: Determine Approvers

Input:

Name	Label	Description	Business Data Type
CompanyCode	Company Code	Company Code to which non operated JV cash call belongs to.	String >
CostCenter	Cost Center	Cost Center to which non operated JV cash call belongs to.	String >
WBS	WBS	WBS to which non operated JV cash call belongs to.	String >
GLAccount	GL Account Number	GL Account number to which non operated JV cash call belongs to.	String >
ReleaseAmount	Release Amount	Release Amount of non operated JV cash call.	Number >
ApprovalStep	Approval Step	Approval Step	String >
Currency	Currency	Currency	String >

Output:

Name	Label	Description	Business Data Type
UserId	User ID	User ID of the approver responsible for non operated JV cash call approval.	String
UserGroup	User Group	Group ID of the approvers responsible for non operated JV cash call approval.	String
Email	Email	Email address of the approvers responsible for non operated JV cash call approval.	String
DueDuration	Due Duration	Due Duration	Number
UnitofTime	Unit of Time	Unit of Time	String

Rule Definition

If								Then		
Company Code	Cost Center	WBS	GL Account Number	Release Amount	Currency	Approval Step	Email	User Group	User ID	
= '4001'	= 'JVA400117'	= '00000000'				= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'	= 'JVA400116'	= '00000000'				= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'	= 'JVA400113'	= '00000000'				= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'	= 'JVA400112'	= '00000000'				= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'	= 'JVA400111'	= '00000000'				= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'	= 'JVA400117'	= '00000000'	= '5202000'			= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'	= 'JVA400116'	= '00000000'	= '5202000'			= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'	= 'JVA400113'	= '00000000'	= '5202300'			= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'	= 'JVA400112'	= '00000000'	= '5202000'			= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'	= 'JVA400111'	= '00000000'	= '5202300'			= 'Technical Review...	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'				IN [1 .. 5000]	= 'USD'	= 'FAL Approver'	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'				IN [5001 .. 10000]	= 'USD'	= 'FAL Approver'	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	
= '4001'				IN [10001 .. 99999]	= 'USD'	= 'FAL Approver'	'email@example.co...	'Approver_GroupId'	'Approver_UserId'	

Determine Position

Determine position of approvers for an approval step in Non Operated Joint Venture Cash Call Approval.

Rule Service Name: Determine Position

Input:

Name	Label	Description	Business Data Type
CompanyCode	Company Code	Company Code to which non operated JV cash call belongs to.	String >
CostCenter	Cost Center	Cost Center to which non operated JV cash call belongs to.	String >
WBS	WBS	WBS to which non operated JV cash call belongs to.	String >
GLAccount	GL Account Number	GL Account number to which non operated JV cash call belongs to.	String >
ReleaseAmount	Release Amount	Release Amount of non operated JV cash call.	Number >
ApprovalStep	Approval Step	Approval Step	String >
Currency	Currency	Currency	String >

Output:

Name	Label	Description	Business Data Type
PositionNumber	Position Number	Position number of person who approves non operated joint venture cash call.	Number >
PositionName	Position Name	Position name of person who approves non operated joint venture cash call.	String >

Rule Definition

IF	Company Code	Cost Center	WBS	GL Account Number	Release Amount	Currency	Approval Step	Then	Position Name	Position Number
<input type="checkbox"/>	= '4001'		= '128'	= '5202000'			= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'		= '128'	= '5202300'			= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'		= '128'				= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'	= 'JVA400117'	= '00000000'	= '5202000'			= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'	= 'JVA400116'	= '00000000'	= '5202000'			= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'	= 'JVA400113'	= '00000000'	= '5202300'			= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'	= 'JVA400112'	= '00000000'	= '5202000'			= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'	= 'JVA400111'	= '00000000'	= '5202300'			= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'	= 'JVA400117'	= '00000000'				= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'	= 'JVA400116'	= '00000000'				= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'	= 'JVA400113'	= '00000000'				= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'	= 'JVA400112'	= '00000000'				= 'Technical Reviewer'		'Technical Approver'	50000509
<input type="checkbox"/>	= '4001'				IN [1 .. 5000]	= 'USD'	= 'FAL Approver'		'Finance Lead'	50000509
<input type="checkbox"/>	= '4001'				IN [5001 .. 10000]	= 'USD'	= 'FAL Approver'		'Finance Lead'	50000509
<input type="checkbox"/>	= '4001'				IN [10001 .. 99999]	= 'USD'	= 'FAL Approver'		'Finance Lead'	50000509

Determine Task Due Date

Determine the due date duration for each step of the Fixed Asset Transfer Approval

Rule Service Name: Determine Task Due Date

Output:

Name	Label	Description	Business Data Type
UserId	User ID	User ID of the approver responsible for non operated JV cash call approval.	String
UserGroup	User Group	Group ID of the approvers responsible for non operated JV cash call approval.	String
Email	Email	Email address of the approvers responsible for non operated JV cash call approval.	String
DueDuration	Due Duration	Due Duration	Number
UnitofTime	Unit of Time	Unit of Time	String

Rule Definition

Text Rule

If

 Cash Call Details.Approval Step = 'Technical Reviewer'

Then

Unit of Time: 'D'

Due Duration: 1

Else If (1)

 Cash Call Details.Approval Step = 'FAL Approver'

Then

Unit of Time: 'D'

Due Duration: 1

Else

 Unit of Time: 'D'

Due Duration: 7

Vocabulary Business Rule

Name	Label	Description	Business Data Type
companyCode	Company Code	Company Code of Joint Venture cash call non operated	String >

Determine Approvers from External Service

If external service is used to determine the approvers, then document what are the requirements – destination, api, api signature, etc.

API Attributes	Values
Path	/http/getApproversjvccnowfm
HTTP Method	GET
Payload sent by workflow (sample data)	<pre>{ "d": { "companyCode": Company Code of Joint Venture Non Operated, "positionID" : Position ID of the Approver } }</pre>
Response Payload from integration flow	<p>RESPONSE STATUS, Ex 200 OK</p> <pre>"d": { "companyCode": "4001", "positionID": "50000509", "approvers": [{ "name": "Approver Name", "emailID": "example@sample.com", "userID": "SAMPLE" }], "message": "Data fetched successfully", "status": "Success" }</pre> <p>Note: When Status is not 200, then it is considered a failed service call.</p>
Payload Type	Application / JSON

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.

Non Operated JV Cash Call process content package provide out of the box visibility on all the

process variants in SAP Build Process Automation or SAP Workflow Management. Line of business expert will be able to enhance the visibility scenario to their requirements.

Configure Visibility Scenarios in SAP Build Process Automation

1. Go to the Application Development Lobby.
2. Select Non Operated Joint Venture Cash Call Approval Project.
3. Click to open **Non Operated Joint Venture Cash Call 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 **Non Operated Joint Venture Cash Call Approval** tile.
3. Click Live Process Insights – Non Operated Joint Venture Cash Call
4. User will view the Process Visibility UI.

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 Non Operated Joint Venture Cash Call 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.nonoperatedjointventurecashcall.Non_Operated_Joint_Venture_Cash_Call
Required	Toggle to Yes

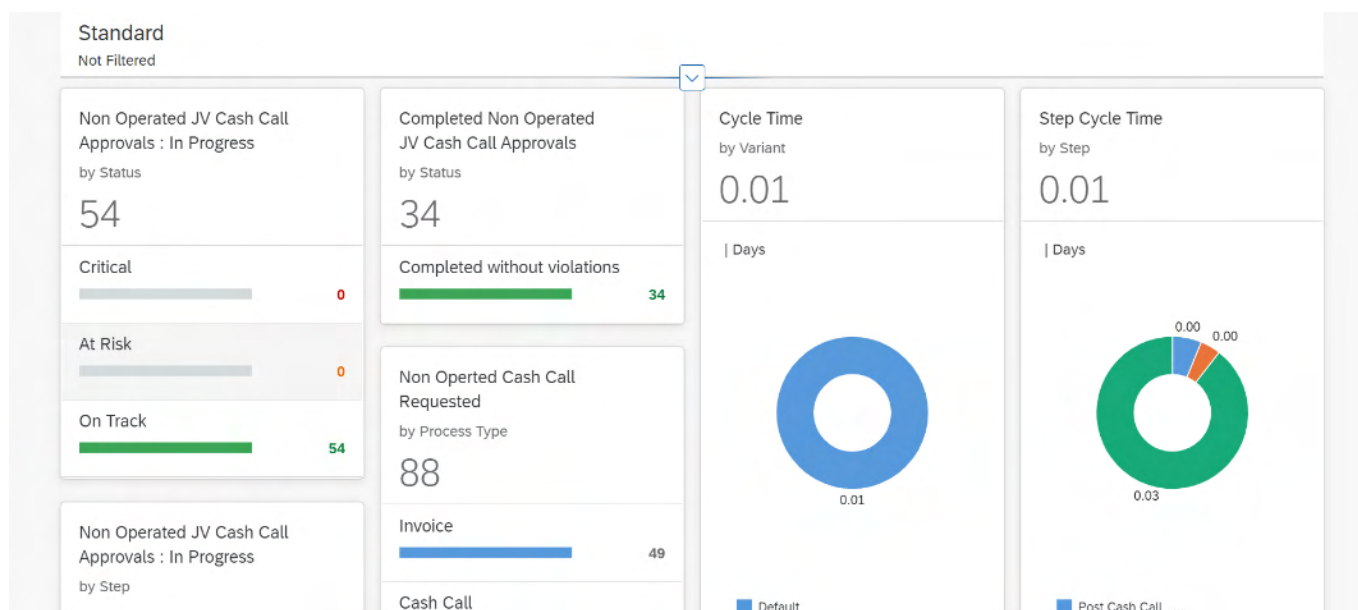
- h. Choose Save.
- i. Assign the local copy to a group and make sure that they're visible to users. For more information, see [Assign Apps to a Group and to a Catalog](#) and [Assign Content to a Role](#).

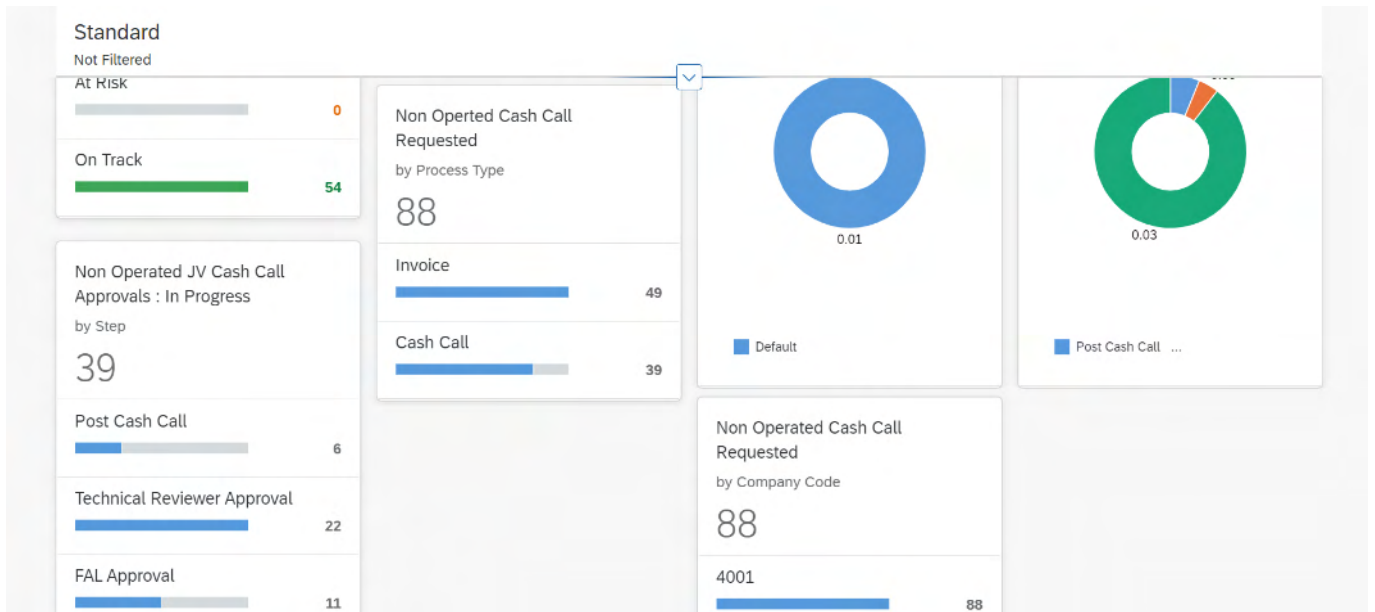
- 3. Once created, select app that corresponds to "Non Operated Joint Venture Cash Call Approval".
- 4. User will see the process visibility dashboard below.

Access Process Workspace in SAP Workflow Management

- 1. Go to Process Flexibility Cockpit
- 2. Select Non Operated Joint Venture Cash Call Approval
- 3. Click Live Process Insights Non Operated Joint Venture Cash Call Approval
- 4. User will see the process visibility dashboard below.

Please go through [help documentation](#) on how to access process workspace.





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

Abbreviations

1. FAL – Financial Approval Limit