

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Configuration Guide

Monitor Collection Reminders

Table of Contents

Table of Contents.....	2
Overview.....	3
1. Objectives.....	3
2. Features.....	3
3. Benefits.....	3
4. Applicable Scenarios.....	3
Solution Diagram.....	4
Artifacts.....	5
Process.....	5
Process Variants.....	8
Decisions & Policies.....	11
Determine Admin Task Due Date.....	13
Determine Approver Task Due Date.....	15
Determine Final Dunning Level.....	15
Determine Approvers from External Service.....	16
Process Visibility.....	17
Configure Visibility Scenarios.....	17
Access Process Workspace.....	18
.....	19

Overview

This document provides information about configuration steps to consume the package **Monitor Collection Reminders**. The primary audience of this document are Finance experts, credit controllers.

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
- 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

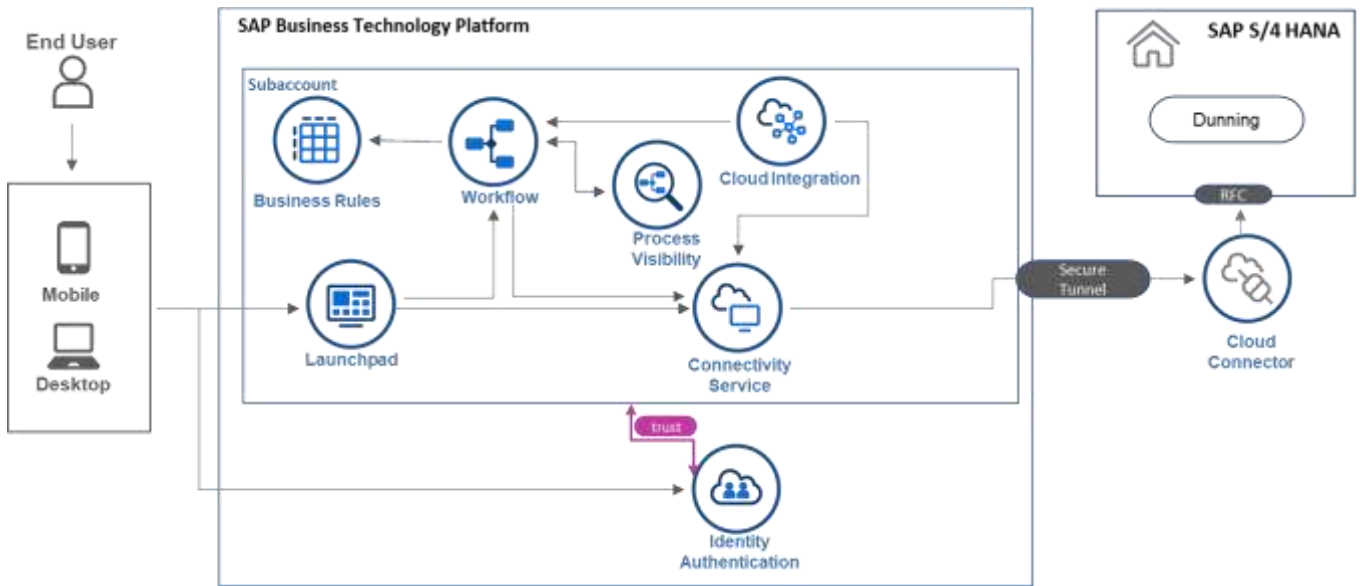


Table 1. Required Services

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

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 Monitor Collection Reminders package contains the following process template:

Collection reminder approval process template where user can raise approval for customer invoice collection.

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 Collection Reminders Approval Scenario

Table 2. Process Steps

Process Steps	Cardinality	Detailed Description
Business Key Initialization	1:1 = mandatory step	Workflow for preparing business key
Initialization	1..1 = mandatory step	Workflow for default payment status as unpaid and fetch final dunning level
Approval	1..N = Mandatory & maximum of once per process	Collection reminder approval workflow where user can raise approval for customer invoice collections.

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 3. Process Step Properties

Process Step	Properties	Detailed Description
Approval	Role	Role of the person who approves/rejects the collection reminder dunning notice.

	Approval Step	Indicates the levels of approval in the workflow
--	---------------	--

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 4. Process Attributes.

Process Attributes	Detailed Description
Customer ID	Customer ID for whom the dunning notice is generated
Customer Name	Customer Name for whom the dunning notice is generated
Current Dunning Level	Current dunning level of the dunning notice that is generated
Final Dunning Level	Final dunning level for the business
Dunning Key	Unique identifier for the process
Is Final Dunning Level	Flag to check if the current dunning level is the final dunning level

Sample Context without Start Conditions

```
{
  "definitionId": "collectionreminders_leadingworkflow",
  "context": {
    "Dunning": {
      "CompanyCode": "4001",
      "CustomerNumber": "9",
      "DocumentNumber": "1800000068",
      "ReferenceID": "12345",
      "NetDueDate": "2021-05-03T00:00:00.000",
      "CurrentDunningLevel": "1",
      "ArrearsByNetDueDate": "28",
      "Amount": "5000.00 USD",
      "Currency": "USD",
      "JournalEntryItem": "001",
      "FiscalYear": "2021",
      "CustomerName": "Domestic Customer 8 name2"
    }
  }
}
```

Sample Context with Start Conditions

```
{
  "definitionId": "collectionreminders_leadingworkflow",
  "context": {
    "Dunning": {
      "CompanyCode": "4001",
      "CustomerNumber": "9",
      "DocumentNumber": "1800000068",
      "ReferenceID": "12345",
      "NetDueDate": "2021-05-03T00:00:00.000",
      "CurrentDunningLevel": "1",
      "ArrearsByNetDueDate": "28",
      "Amount": "5000.00 USD",
      "Currency": "USD",
      "JournalEntryItem": "001",
      "FiscalYear": "2021",
      "CustomerName": "Domestic Customer 8 name2"
    }
  }
}
```

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.



Import Collection Reminders Content and Configure Process Variants

1. In Process Flexibility Cockpit app, search for content package Monitor Collection Reminders 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 are required.
2. Please refer to the standard help document about [Configuring a process variant](#)

Collection Team Approval

Process step for collection team approval

Step Condition

The screenshot shows the SAP Manage Process Variants interface for the process variant 'CoIREM-3STEP'. On the left, the 'Available Steps (1)' list contains 'Approve Collection...' with a description: 'Collection reminder approval workflow where user can raise approval for...'. The central diagram shows a vertical flow of three steps: 'Collection Team Approval' (highlighted in blue), 'Legal Team Approval', and 'Insurance Team Approval'. The 'Step Properties' panel on the right is open to the 'Step Conditions' tab. It displays the condition: 'Only start the step if all of the following conditions are met:'. Below this, a dropdown menu shows 'Dunning Notice Information is FI...', followed by an equals sign and a dropdown menu. The value 'false' is entered in the text field. There is an 'Add Alternate Conditions' button at the bottom.

The screenshot shows the same SAP Manage Process Variants interface for 'CoIREM-3STEP'. The central diagram now highlights 'Legal Team Approval' in blue. The 'Step Properties' panel on the right is still open to the 'Step Conditions' tab. The condition is the same: 'Only start the step if all of the following conditions are met:'. The dropdown menu shows 'Dunning Notice Information is FI...', followed by an equals sign and a dropdown menu. The value 'true' is entered in the text field. There is an 'Add Alternate Conditions' button at the bottom.

SAP Manage Process Variants

ColREM-3STEP

Undo Redo Save Activate

Available Steps (1)

- Approve Collection...
Collection reminder approval workflow where user can raise approval for...

```

graph TD
    Start(( )) --> A[Collection Team Approval]
    A --> B[Legal Team Approval]
    B --> C[Insurance Team Approval]
    C --> End(( ))
  
```

Step Properties

Step Conditions More

Only start the step if all of the following conditions are met:

Dunning Notice Information.is FI...
=
true

+ Add Alternate Conditions

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

Monitor Collection Reminders enable customers to flexibly configure decisions to gain flexibility with the following Rules projects.

1. CollectionReminderApprovalRules
2. CollectionRemindersVocabulary

Determine Approvers

Rule service to determine approvers for the Monitor Collection Reminders process

Rule Service Name: Determine Approvers

Input: Dunning Notice Details (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
CompanyCode	Number	Company code for which dunning notice is generated.
CustomerNumber	Number	Customer Number for whom dunning notice is generated.
ApprovalStep	String	Unique identification of the approval step. Ex: Collection Team, Legal Team

Output: Approver Details (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
FinalDunningLevel	Number	Final dunning level of dunning cycle.
ApprovalRequired	Boolean	Flag to determine approval required or not.
UserId	String	User ID of the approver.
GroupId	String	User Group who can approve the step in workflow.
Email	String	Email address of the approver(s)

Rule Definition

Determine approvers for a approval step in collection reminder approval process.

Determine Approvers

Details [Decision Table](#)

Decision Table						
If			Then			
Company Code	Customer Number	Approval Step	Supervisor Email Ad...	Email Address	User Group	User ID
= 'XYZ'	= 'XYZ'	= 'Collection Team'	'email@example....'	'email@example....'	'Approver_GroupId'	'Approver_UserId'
= 'XYZ'	= 'XYZ'	= 'Legal Team'	'email@example....'	'email@example....'	'Approver_GroupId'	'Approver_UserId'
= 'XYZ'	= 'XYZ'	= 'Insurance Team'	'email@example....'	'email@example....'	'Approver_GroupId'	'Approver_UserId'

Where used

Step: Called from Approval step

Determine Administrators

Rule service to determine administrators for the Monitor Collection Reminders process

Rule Service Name: Determine Administrators

Input: Dunning Notice Details (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
CompanyCode	Number	Company code for which dunning notice is generated.
CustomerNumber	Number	Customer Number for whom dunning notice is generated.
CurrentDunningLevel	Number	Current Dunning Level of dunning notice generated.
ApprovalStep	String	Unique identification of the approval step. Ex: Collection Team, Legal Team

Output: Administrator Details (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
UserId	String	User ID of the administrator
GroupId	String	User Group of the administrator.
Email	String	Email address of the administrator.

Rule Definition

Determine administrators for an approval step in collection reminder approval process.



Determine Administrators

Details Decision Table

Decision Table

If			Then		
Approval Step	Company Code	Customer Number	Email Address	User Group	User ID
= 'Collection Team'	= 'XYZ'	= 'XYZ'	'email@example.com'	'Admin_GroupId'	'Admin_UserId'
= 'Legal Team'	= 'XYZ'	= 'XYZ'	'email@example.com'	'Admin_GroupId'	'Admin_UserId'
= 'Insurance Team'	= 'XYZ'	= 'XYZ'	'email@example.com'	'Admin_GroupId'	'Admin_UserId'

Where used

Step: Called from Approval step

Approver Determination Strategy

This strategy is used to determine if the approval determination is based on external service or business rule



Approver Determination Strategy

Details Decision Table

Decision Table

If			Then
Company Code	Customer Number	Approval Step	Determination Strategy
= 'XYZ'	= 'XYZ'	= 'Collection Team'	'External Service'
= 'XYZ'	= 'XYZ'	= 'Legal Team'	'External Service'
= 'XYZ'	= 'XYZ'	= 'Insurance Team'	'External Service'
			'Business Rules'

Determine Admin Task Due Date

This strategy is used to remind on the due date for the admin action

 Determine Admin Task Due Date

Details **Text Rule**

Text Rule

▼ If

Dunning Notice Details.Approval Step = 'Collection Team'

Then

Due Duration in Days: 1

Text Rule

> If

▼ Else If (1)

Dunning Notice Details.Approval Step = 'Legal Team'

Then

Due Duration in Days: 1

Text Rule

> If

> Else If (1)

▼ Else If (2)

Dunning Notice Details.Approval Step = 'Insurance Team'

Then

Due Duration in Days: 1

Text Rule

- > If
- > Else If (1)
- > Else If (2)
- ▼ Else If (3)

Dunning Notice Details.Approval Step = 'Initialization'

Then

Due Duration in Days:

Determine Approver Task Due Date

This strategy is used to remind on the due date for the approvers

Determine Task Due Date

Details Text Rule

Text Rule

- ▼ If

Dunning Notice Details.Approval Step = 'Collection Team'

Then

Due Duration in Days:

Determine Final Dunning Level

This strategy is used to identify the final dunning level for customer

Determine Final Dunning Level

Details **Decision Table**

Decision Table

If		Then
Company Code	Customer Number	Final Dunning Level
= 'XYZ'	= 'XYZ'	1

Collection Reminders Vocabulary Rules Project

This vocabulary project is used in the start condition and step conditions.

Dunning Notice Information

Details **Attributes** Associations Annotations

Attributes

Simple Attributes

Name	Label	Description	Business Data Type	
CompanyCode	Company Code	Company code for which company the dunning notice will be generated.	String	>
CustomerNumber	Customer Number	Customer Number for whom dunning notice is generated.	String	>
IsFinalDunningLevel	Is Final Dunning Level	Flag to indicate if it is final dunning level.	String	>

Determine Approvers from External Service

Sample Input payload for external service

```
"ApproverRulesPayload": {
  "d": {
    "Dunning": {
      "NetDueDate": "2021-04-15T00:00:00.000",
      "ArrearsByNetDueDate": "182",
      "FiscalYear": "2021",
      "Amount": "25000.00 USD",
      "DocumentNumber": "1800000101",
      "IsFinalDunningLevel": "true",
```



```
"ReferenceID": "",
"CustomerNumber": "18",
"Currency": "USD",
"JournalEntryItem": "001",
"CustomerName": "Domestic Customer 5 name2",
"CurrentDunningLevel": "10",
"CompanyCode": "4001"
},
"Role": "Legal Team"
}
}
```

Sample output response

```
"ApproverRulesResult": {
"d": {
"approvers": [
{
"supervisorEmail": "email@example.com",
"email": "email@example.com",
"userGroup": "Approver_GroupId",
"userId": "Approver_UserId"
}
]
}
}
```

URL Construct: /http/getApproversCR

Process Visibility

Process Visibility capability in 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.

Monitor Collection Reminders process content package provide out of the box visibility on all the process variants in SAP Workflow Management. Line of business expert will be able to enhance the visibility scenario to their requirements.

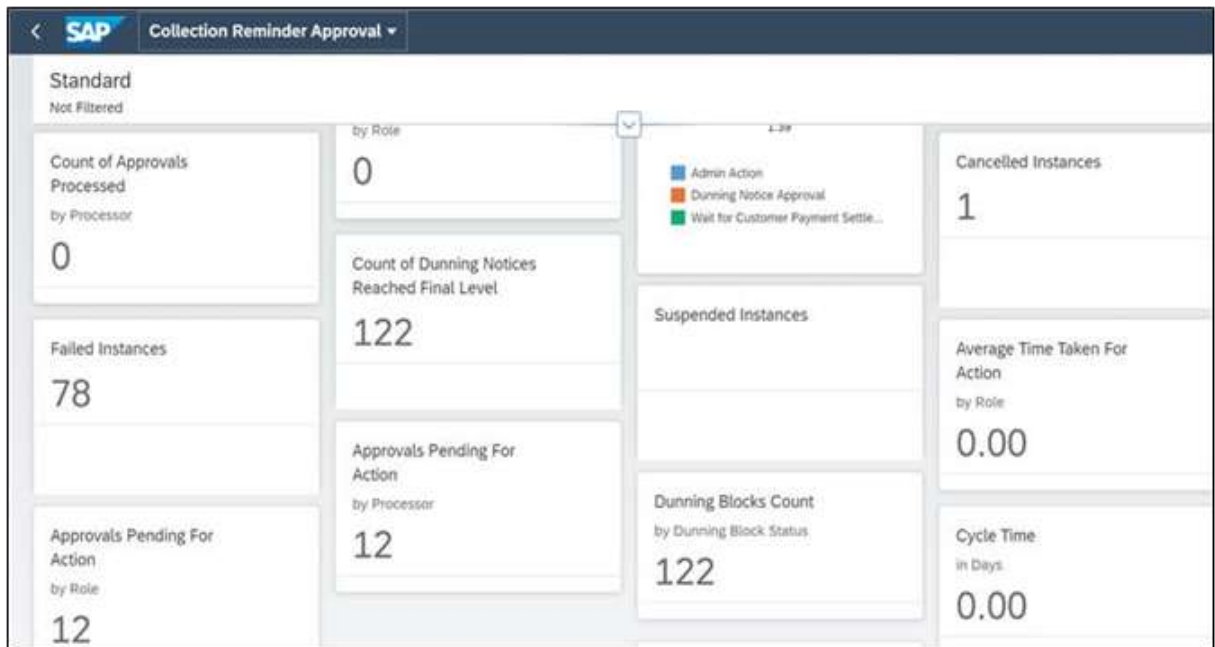
Configure Visibility Scenarios

1. Go to Process Flexibility Cockpit.

2. Select **Monitor Collection Reminders** tile in packages
3. Click **Live Process Insights Collection Reminder Approval**
4. User will see the below detailed process visibility dashboard.



Dashboard of Collection Reminders process visibility



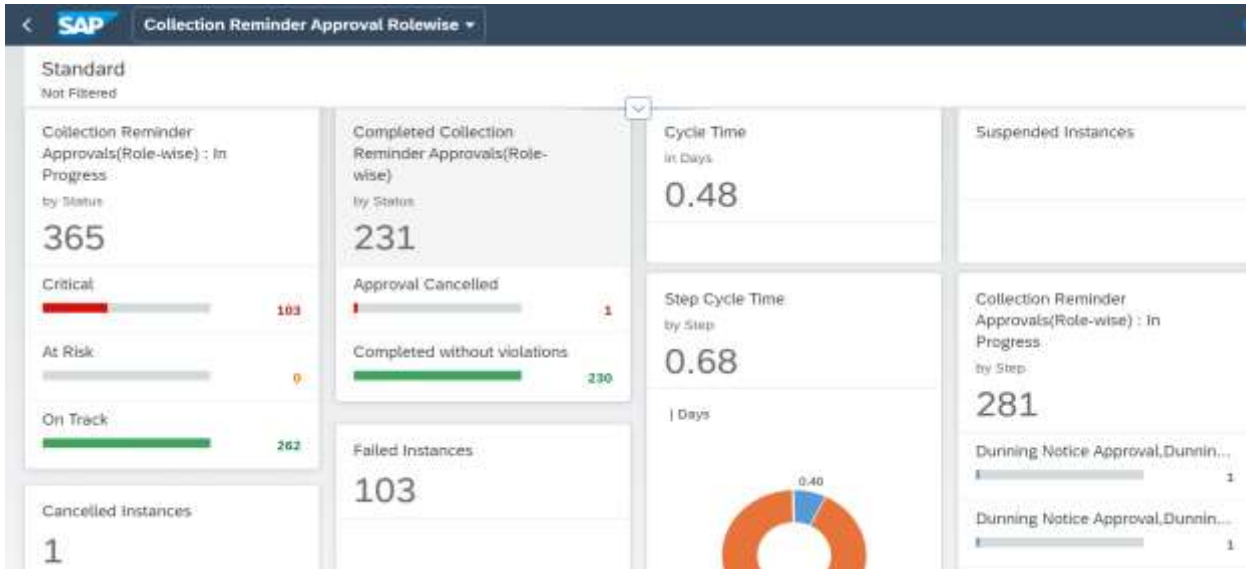
Dashboard of Collection Reminders process visibility

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

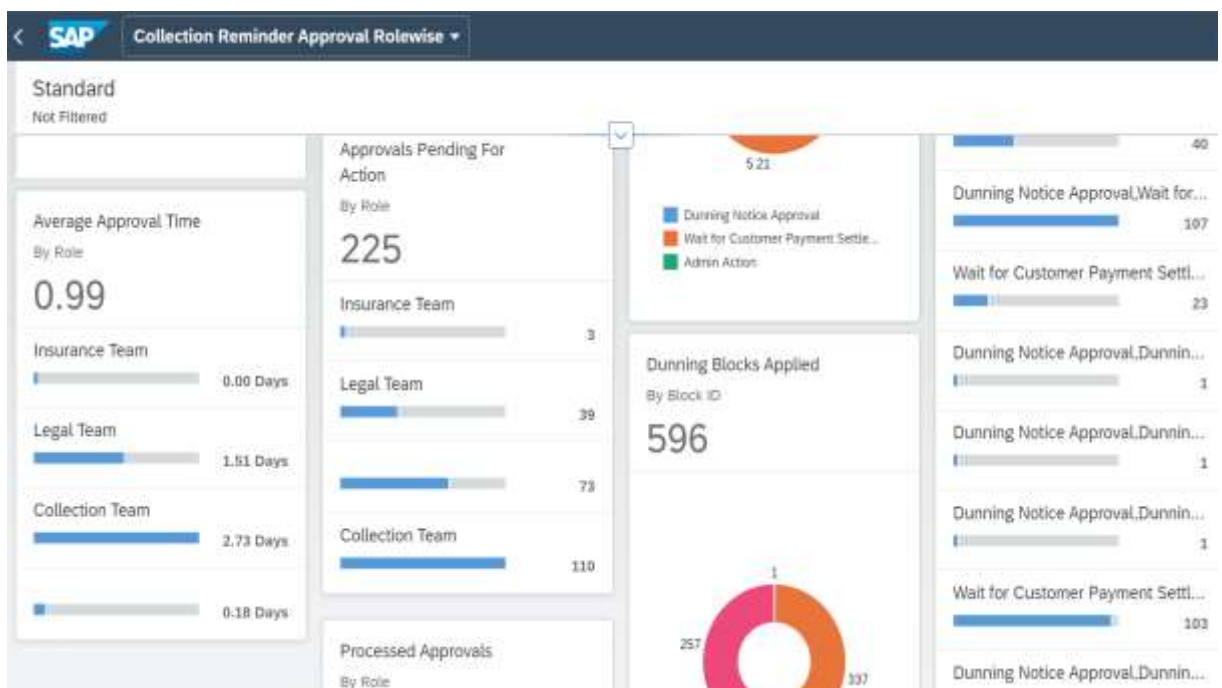
Access Process Workspace

1. Go to Process Flexibility Cockpit
2. Select **Monitor Collection Reminders** tile in packages

3. Click Live Process Insights **Collection Reminder Approval Rolewise**
4. User will see the below detailed process visibility dashboard.



Dashboard of Collection Reminders, approval team wise drill down



Dashboard of Collection Reminders, approval team wise drill down

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