

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Configuration Guide

Manage Delivery and Billing Block in Sales Order using
SAP Build Process Automation or SAP Workflow
Management

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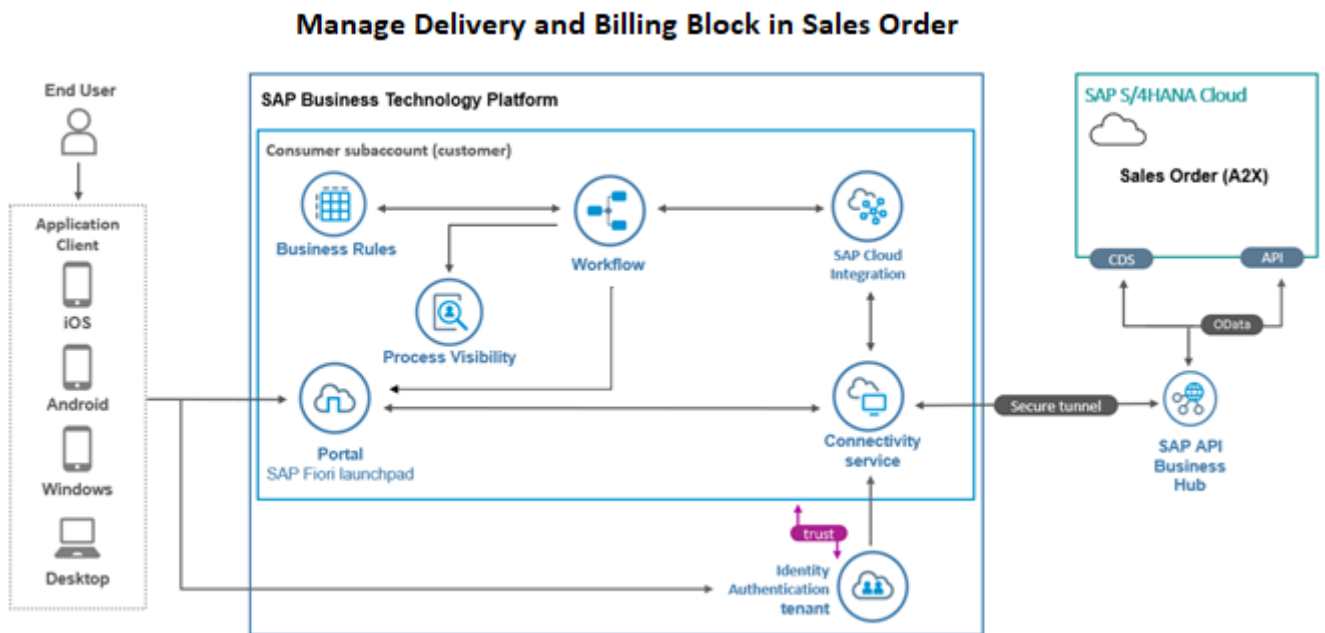
Overview

This document provides information about configuration steps to consume the live process package **Manage Delivery and Billing Block in Sales Order**. The main audience of this document are Sales Managers, Finance Managers, Developers and Product owners.

The Manage Delivery and Billing Block in Sales Order content package enables SAP S/4HANA customers to automate the approvals required for removal of delivery and billing block in Sales Order request using SAP Build Process Automation or SAP Workflow Management without additional development in SAP S/4HANA.

Salient features of this content package are:

- Plug and Play with SAP S/4HANA without any additional development.
- Process steps delivered to approve removal of delivery and billing block request.
- Automatic email notification to parties involved.
- Business Rules provide flexibility in determining approver determination strategy and approvers.
- Custom validation on removal of delivery and billing block request attributes using Business Rules.
- New variant of the process can be created using the pre-delivered process steps in a no-code / low-code approach.
- Out-of-the-box visibility into key process performance indicators of Manage Delivery and Billing Block in Sales Order



Live Process Artifacts

A package consists of process templates, process steps, 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 approval process. The **Manage Delivery and Billing Block in Sales Order** package contains the following process template:

Manage Delivery and Billing Block in Sales Order in SAP S/4HANA with a multilevel approval process. It includes start and end process steps for easy no-code/low-code 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 removal of delivery and billing block.

Table 1. Process Steps

Process Steps	Cardinality	Detailed Description
Validation of Delivery and Billing Block	0..1	This step is optional, maximum occurrence is 1 in process variant. Based on the customer number, sales organization, distribution channel, division, document type, sales office, sales group, amount and currency. it will validate the removal of delivery and billing block request. After validation of sales order, respective sales reviewer will review the request in My Inbox application. Here reviewer can submit the request for approval or request can be sent for rework to the sales team user.
Approval for Delivery and Billing Block	1.. N	This step initiates and completes one level of approval for the removal of delivery and billing block request. This step can occur multiple times in the process variant. Based on the number of approvals required, this step can be re-used multiple times. It is possible to rename the step to appropriate approval roles, for example, 'Approval for Sales Header'. The approver is determined based on various conditions using a business rule. The requestor and the approver are automatically notified via mail about the decision and approval task, respectively.
Removal of Delivery and Billing Block	1..1	Remove delivery and billing block of sales order in SAP S/4HANA system after completion of all the configured approval steps. This step can occur only once, and it should be the last step in a process variant. If there is any success in removal of delivery and billing block request, notification mail will be triggered to the sales team user. If there is any error, admin task will be triggered to process admin, either admin can retry the block removal process or admin can abort the workflow process.

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 times and based on these properties the approver is determined.

Approver can see removal of delivery and billing block request approval history based on removal of delivery and billing block request details. Please see Table 2 for more details

Table 2. Process Step Properties

Process Step	Properties	Detailed Description
Approval for Delivery and Billing Block	Level Name	Based on the name of the approval level, the approver is determined using a business rule. Default value is Sales Head, and it can be configured to any approval level, provided the same approval level 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
salesOrderNo	Sales Order No
salesOrg	Sales Organization
distributionChnl	Distribution Channel
division	Division
salesOffice	Sales Office
salesGroup	Sales Group
customerGroup	Customer Group
amount	Amount
currency	Currency
customer	Customer
Approval Status	Approval Status
billingDate	Billing Date

The following (sample) context with Start Conditions required to start the removal of delivery and billing block request Workflow

```
{
  "SalesOrderDetails": {
    "amount": 240.00,
    "documentType": "OR",
    "salesOffice": "170",
    "customerGroup": "03",
    "salesGroup": "170",
    "salesOrg": "1710",
    "isReviewerExist": true,
    "division": "00",
    "salesUser": "CB9980000050",
    "distributionChnl": "10",
    "isBillingBlock": true,
    "isSalesUserExist": true,
    "businessKey": "120_BillingBlock",
    "requestDate": "2022-02-22T08:48:10.249Z",
    "isDeliveryBlock": false,
    "removalRequestFor": "Billing Block",
    "currency": "USD",
    "salesOrderNo": "120",
    "customer": "17100006"
  }
}
```

```
},
"SalesOrder": {
"SalesGroup": "170",
"SalesOrganisation": "1710",
"DistributionChannel": "10",
"Division": "00",
"SalesOffice": "170",
"CustomerGroup": "03",
"NetValue": 240.00,
"Currency": "USD",
"Customer": "17100006",
"DocumentType": "OR",
"BlockType": "Billing Block"
}
}
```

Sample Conditions to directly start a variant workflow

```
"SalesOrder": {
"SalesGroup": "170",
"SalesOrganisation": "1710",
"DistributionChannel": "10",
"Division": "00",
"SalesOffice": "170",
"CustomerGroup": "03",
"NetValue": 240.00,
"Currency": "USD",
"Customer": "17100006",
"DocumentType": "OR",
"BlockType": "Billing Block"
}
}
```

Example:

Process Variant Properties

General **Start Conditions**

Only start the variant if all of the following conditions are met: ⊗

Sales Order Details.Type of Block ∨

= ∨

Billing Block

⊗ +

Sales Order Details.Customer Group ∨

= ∨

02

⊗ +

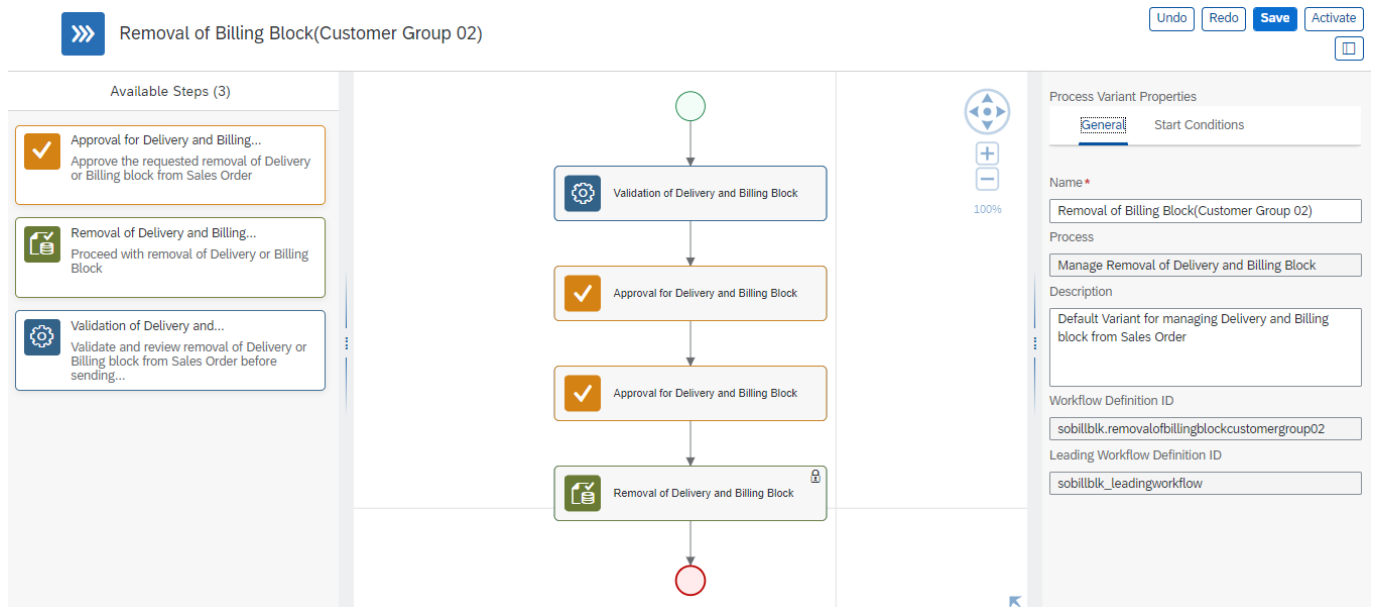
Add Alternate Conditions

Process Variants

A process variant consists of multiple process steps configured by a line of business experts. 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.

An example of removal of delivery and billing block variant is given below. It is possible to configure multiple variants of this process.



Import Manage Delivery and Billing Block in Sales Order and Configure Process Variants with SAP Build Process Automation

1. In the [SAP Build Process Automation Store](#), search for live process package Manage Delivery and Billing Block in Sales Order 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 Manage Delivery and Billing Block in Sales Order. 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 Manage Delivery and Billing Block in Sales Order” 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 Manage Delivery and Billing Block in Sales Order and Configure Process Variants with SAP Workflow Management

1. In Process Flexibility Cockpit app, search for content package Manage Delivery and Billing Block in Sales Order. 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. 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 “Manage Removal of Delivery and Billing Block in Sales Order” 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 Manage Delivery and Billing Block in Sales Order” 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.

Manage Delivery and Billing Block in Sales Order request process will enable the customers to flexibly configure decisions to gain the flexibility.

1. Delivery Billing Block Validation
2. Determine Sales User And Reviewer
3. Determine Approver
4. Approver Determination Strategy
5. Determine Process Administrator

Delivery Billing Block Validation

With this decision, it is possible to add any business-specific validation on removal of delivery and billing block request. For Example, enable/disable the cloud application for a specific sales order, net value etc.

Rule Service Delivery Billing Block Validation
Input Data Object: Sales Order Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Sales Order	String	Sales Order of requested removal of delivery and billing block

Sales Organization	String	Sales Organization of removal of delivery and billing block
Distribution Channel	String	Distribution Channel of removal of delivery and billing block
Division	String	Division of removal of delivery and billing block
Sales Office	String	Sales Office of removal of delivery and billing block
Sales Group	String	Sales Group requested removal of delivery and billing block
Customer Group	String	Customer Group of removal of delivery and billing block
Net Value	Number	Net Value of removal of delivery and billing block
Currency	String	Currency of removal of delivery and billing block
Customer	String	Customer of removal of delivery and billing block
Document Type	String	Document Type of removal of delivery and billing block
Block Type	String	Removal Block Type can only be 'Delivery Block' or 'Billing Block'. It will be determining the type of block which is required to be removed from the Sales Order.

Output: Validation Result (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Validation Message	String	Validation Message
Is Validated	Boolean	'True' if validation is successful and 'False' if validation failed.

Rule Definition

Rule service is used to add additional validation as per the business requirement. For example, you can exclude sales order zero and net value zero to use this application

Determine Approvers

Rule service used to identify the potential approvers based on different policies. Approver will be determined depending on Sales Order and Sales Group. In this business rules Due date will be this business rules determined by a text rule based on removal of delivery and billing block details. Every approver will have their respective due date in their approval task.

Rule Service: Determine Approver

Input Data Object: Sales Order Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
-----------	------	-------------

Sales Order	String	Sales Order of requested removal of delivery and billing block
Sales Organization	String	Sales Organization of removal of delivery and billing block
Distribution Channel	String	Distribution Channel of removal of delivery and billing block
Division	String	Division of removal of delivery and billing block
Sales Office	String	Sales Office of removal of delivery and billing block
Sales Group	String	Sales Group requested removal of delivery and billing block
Customer Group	String	Customer Group of removal of delivery and billing block
Net Value	Number	Net Value of removal of delivery and billing block
Currency	String	Currency of removal of delivery and billing block
Customer	String	Customer of removal of delivery and billing block
Document Type	String	Document Type of removal of delivery and billing block
Block Type	String	Removal Block Type can only be 'Delivery Block' or 'Billing Block'. It will be determining the type of block which is required to be removed from the Sales Order.
Level Name	String	Approval Level Name for which specific approver will approve the request

Along with the above attributes the other attributes can also be added as input parameters in this business rule.

Output: Approver Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
User Id	String	User ID of the individual approver.
Group ID	String	The user group who can approve the step-in workflow.
Mail ID	String	Email address of the approver or approvers.
Is Approval Required	Boolean	Check if approval is required. True for required and false not required.
Unit of Time	String	Unit of time of due duration
Task Due Duration	Number	The task due duration target by which the user task needs to be completed
Due Duration Reference Event	String	Reference to an event in the workflow to determine the target of the user task

Rule Definition

Rule service used in the approval process step to identify the potential approvers based on different company policies

If Is Approval Required equal to “False” means it is automatically approved.

Due Date Determination Policy

Determine the due date duration for each approval step of the removal of delivery and billing block approval process. Based on the reference to determine the due date and the due duration, the

approval task's deadline is calculated automatically.

Rule Name: Determine Task Due Date

Input Data Object: Sales Order Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Sales Order	String	Sales Order of requested removal of delivery and billing block
Sales Organization	String	Sales Organization of removal of delivery and billing block
Distribution Channel	String	Distribution Channel of removal of delivery and billing block
Division	String	Division of removal of delivery and billing block
Sales Office	String	Sales Office of removal of delivery and billing block
Sales Group	String	Sales Group requested removal of delivery and billing block
Customer Group	String	Customer Group of removal of delivery and billing block
Net Value	Number	Net Value of removal of delivery and billing block
Currency	String	Currency of removal of delivery and billing block
Customer	String	Customer of removal of delivery and billing block
Document Type	String	Document Type of removal of delivery and billing block
Block Type	String	Removal Block Type can only be 'Delivery Block' or 'Billing Block'. It will be determining the type of block which is required to be removed from the Sales Order.
Level Name	String	Approval Level Name for which specific approver will approve the request

Output: Duration Due (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Duration Reference	String	Reference event in workflow that is used to determine the due date of user task
Unit of Time	String	Unit of Time
Duration	Number	Duration

Approver Determination Strategy

To identify the approver determination strategy below rule service will be used.

Rule Service: Approver Determination Strategy

Input Data Object: Sales Order Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
-----------	------	-------------

Sales order	String	Sales Order of requested removal of delivery and billing block
Sales Organization	String	Sales Organization of removal of delivery and billing block
Distribution Channel	String	Distribution Channel of removal of delivery and billing block
Division	String	Division of removal of delivery and billing block
Sales Office	String	Sales Office of removal of delivery and billing block
Sales Group	String	Sales Group for removal of delivery and billing block
Customer Group	String	Customer Group of removal of delivery and billing block
Net Value	Number	Net Value of removal of delivery and billing block
Currency	String	Currency of removal of delivery and billing block
Customer	String	Customer of removal of delivery and billing block
Document Type	String	Document Type of removal of delivery and billing block
Block Type	String	Removal Block Type can only be 'Delivery Block' or 'Billing Block'. It will be determining the type of block which is required to be removed from the Sales Order.
Level Name	String	Approval Level Name for which specific approver will approve the request

Output: Approver Determination Strategy (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Determination Strategy	String	Determination strategy can either "Business Rule" or "External Service" depending on Sales Order details.

Rule Definition

Rule service used in the approval process step to identify the approver determination type. It can be 'Business Rules' based or 'External Service' based

Determine Process Administrator

Determine the process administrator to decide action.

Rule Service: Determine Process Administrator

Input Data Object: Sales Order Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Sales order	String	Sales Order of requested removal of delivery and billing block
Sales Organization	String	Sales Organization of removal of delivery and billing block
Distribution Channel	String	Distribution Channel of removal of delivery and billing block

Division	String	Division of removal of delivery and billing block
Sales Office	String	Sales Office of removal of delivery and billing block
Sales Group	String	Sales Group for removal of delivery and billing block
Customer Group	String	Customer Group of removal of delivery and billing block
Net Value	Number	Net Value of removal of delivery and billing block
Currency	String	Currency of removal of delivery and billing block
Customer	String	Customer of removal of delivery and billing block
Document Type	String	Document Type of removal of delivery and billing block
Block Type	String	Removal Block Type can only be 'Delivery Block' or 'Billing Block'. It will be determining the type of block which is required to be removed from the Sales Order.
Level Name	String	Approval Level Name for which specific approver will approve the request

Output Process Administrator Details (Structure)

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

Rule Definition

Rule Service used to determine the Process Administrators that need to be notified to resolve any issue with the process

Manage Delivery Billing Block Sales Order Vocabulary

For removal of delivery and billing block Workflow start condition or step condition a separate business rules project will be used, named as **Manage Delivery Billing Block Sales Order Vocabulary**. Depending on manage delivery billing block sales order vocabulary process variant will be determined.

Input Data Object: Sales Order Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Sales Order	String	Sales Order of requested removal of delivery and billing block
Sales Organization	String	Sales Organization of removal of delivery and billing block
Distribution Channel	String	Distribution Channel of removal of delivery and billing block
Division	String	Division of removal of delivery and billing block

Sales Office	String	Sales Office of removal of delivery and billing block
Sales Group	String	Sales Group for removal of delivery and billing block
Customer Group	String	Customer Group of removal of delivery and billing block
Net Value	Number	Net Value of removal of delivery and billing block
Currency	String	Currency of removal of delivery and billing block
Customer	String	Customer of removal of delivery and billing block
Document Type	String	Document Type of removal of delivery and billing block
Block Type	String	Removal Block Type can only be 'Delivery Block' or 'Billing Block'. It will be determining the type of block which is required to be removed from the Sales Order.

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 Approve Process step has a provision to call an iFlow with the following configuration. This iFlow needs to be implemented as per your business requirement.

Destination	CPI [Refer to Setup Guide]
CPI Adapter	HTTP
Endpoint	/http/SalesOrderApproverDetermination
HTTP Method	POST
Request Payload Type	JSON(application/json)
Request Payload Structure	<pre>{ "SalesOrderDetails": { "SalesOrganisation": "1710", "Customer": "17100007", "CustomerGroup": "01", "DistributionChannel": "10", "DocumentType": "OR", "SalesOffice": "170", "BlockType": "Delivery Block", "Currency": "USD", "NetValue": "2500.00", "LevelName": "Sales Manager", "Division": "00", "SalesGroup": "170", "SalesOrder": "154" } }</pre>
Response Payload Structure	<pre>{ "Result": [{</pre>

	<pre> "ApproverDetails": { "DueDurationReference": "Workflow", "UnitOfTime": "h", "UserID": "xyz@itcinfotech.com", "DueDuration": 2, "IsApprovalRequired": false, "MailID": "xyz@itcinfotech.com", "GroupID": "xyz@itcinfotech.com" } }] } </pre>

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.

Manage Delivery and Billing Block in Sales Order process content package provides 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 Manage Delivery and Billing Block in Sales Order Project.
3. Click to open **Manage Delivery and Billing Block in Sales Order** 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 Visibility Cockpit.
2. Select Manage Delivery and Billing Block in Sales Order tile.
3. Click Visibility Scenarios tile.
4. Select **Manage Delivery and Billing Block in Sales Order** scenario and click Activate.

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 Manage Delivery and Billing Block in Sales Order 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.sobillblk
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 “Manage Delivery and Billing Block in Sales Order”.
4. User will see the process visibility dashboard below.

Access Process Workspace in SAP Workflow Management

1. Go to Process Flexibility Cockpit
2. Select Manage Delivery and Billing Block in Sales Order
3. Click Live Process Insights Manage Delivery and Billing Block in Sales Order
4. User will see the process visibility dashboard below.

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

Standard

Sales Order: Sales Organization: Distribution Channel: Division: Sales Office: Sales Group:

Customer Group: Amount: Currency: Customer: Approval Status: Billing Date:

Variant: Variant ID:

[Adapt Filters](#)

