A close-up of a logo

Description automatically generated

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| **Functional Specification Document**  **RTR-E002**  **Profit Center derivation on accounting based on Ship-to-party and Customer combination** | | |
| Abstract: | Details about the WRICEF | |
|  |  | |
| Author: | Vikas Gupta |  |
|  |  |  |
| Version: | 1.0 |  |
|  |  |  |
| Issue Date: | 5 January 2024 |  |

Document Details

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| --- | --- |
| Project Name | Compass |
| Release | Pilot & Template |
| System Name | ​​☒​SAP S/4HANA  ​​☐​SAP CAR |
| Functional Area | Profit Center Accounting |
| WRICEF ID | RTR-E002 |
| WRICEF Type | Report/Extension |
| Document Owner | Vikas Gupta |
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Amendment control

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| --- | --- | --- | --- |
| **Version #** | **Date** | **Amended By** | **Nature of Change** |
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Note: The latest version of this document supersedes all other previous issues.

Approver Record

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| **Approver** | **Name** | **Approval Date** |
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​​**Table of Contents**

1. **Functional Description**

Profit Center has to be derived on the basis of Ship-to-party and Customer combination in accounting documents generated from OTC processes.

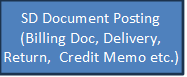
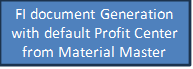
1. **Functional Design**
2. **Current functional design**

Currently the system will work as per SAP standard process. At present the Profit Center will be derived from the material being sold.

1. **Expected functional design**

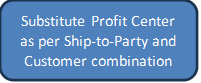
As per expected functional design, the profit center should be automatically determined on the basis of Ship to Party and Customer Code (Sold-To-Party) in the accounting documents related to OTC processes.

1. **Process flow diagram**



Shape

Shape



1. **Assumptions**

N/A

1. **Transactional volume**

Ongoing activity on daily basis.

1. **Frequency and timing**

Ongoing activity on daily basis.

1. **Process type**

Automation. Detailed documentation is given in Automation section.

1. **Audience**

AR Accountant and Management Reporting

1. **Reports**
2. **Fit to standard checks**

​​☐​No standard Fiori applications are present with the required functionality.

​​☐​No standard application can be extended to enable this functionality.

1. **Report Selection Criteria**

<Add filter criteria for report that needs to be available for user to select>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | **Type Of Control** | **Type of Input** | **Data Type** | **Default Values** |
| 1 | <Input>/ <Dropdown>/ <Checkbox>/<Radio Button> | <Single>/<Multiple> | <CHAR, NUM, FLOAT> | <Those will be shown by default without user interaction. Used for frequently added related data. Can be changed manually by end user if needed> |
| 2 |  |  |  |  |

1. **Report Output Fields**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Field Name** | **Data Type** | **Data Source and Logic** | **Default Values** |
| **1** | <Column Name> | <CHAR, DATE, NUM, FLOAT> | <Add logic to fetch data here> | <If applicable> |
| **2** |  |  |  |  |

1. **Report Actions/Operations**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | **Operation** | **Button Text** | **Operation Logic** | **Role Specific Restrictions** |
| 1 | <Execute> | <Execute> | <Operations that needs to happen once button is triggered> | <If Applicable> |
| 2 |  |  |  |  |

1. **Validation and Expected Error Messages**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | **Validation on Field** | **Error Type** | **Validation Logic** | **Error Text** |
| 1 | <Input Name> | <Error, Warning, Information> | <Add validation logic> | <Exact Error Text> |
| 2 |  |  |  |  |

1. **Sorting and grouping requirement**
2. **Sorting Criteria Specification**

<Define the fields or parameters for sorting, including ascending/descending order and default rules.>

1. **Grouping Specification**

<Outline criteria for grouping, specifying levels, nested options, and whether to display totals/subtotals.>

1. **Tile Name**

<Provide name of the custom tile Header>

1. **Navigation to other reports**

<If Applicable, provide with name of the linked application and expected steps to navigate to it>

1. **Fields for Enterprise Search**

<Specify need of making application related specific information searchable from Fiori launchpad>

1. **Security and Authorization Requirements**
2. **Role level restriction**

<Specify if the application needs to be restricted to specific business role/roles>

1. **Line-item level restriction**

<Specify if the application needs to show content based on assigned organizational configuration>

1. **Forms**
2. **Fit to standard checks**

​​☐​No standard Adobe Forms are present with the required functionality.

​​☐​No standard Adobe form can be extended to enable this functionality.

1. **Functional Overview**

<Provide a brief description of the purpose and objectives of the Adobe form. Specify the business process or application for which the form is used.>

1. **Form trigger**

<Provide information on conditions to trigger this form>

<Provide associated output types>

1. **Form Layout**

<Attach an exact representation of a form layout and specify margin, font, Stationery and Logo requirements. If not shared, it is considered that developer can use default aspects. Kindly note, changing those parameters later in development phase will cause significant delays>

1. **Page size**

* Page Size
* Page Orientation

1. **Logo Requirements**

* Attach file

1. **Font Requirements**

* Specify Font name
* Specify Front Sizes

1. **Printer Type/Name**

* Specify Type/Make

1. **Barcode/Image Requirement**

* Specify Type
* Specify Orientation
* Specify Size (MM/CM/Inch)

1. **Watermark Requirement**

* Specify Environment specific visibility (Only on Dev/Quality or on all environments)
* Specify Location
* Specify Orientation
* Specify Size (Length by Width in mm, cm, Inch)
* Attach Image/Specify Text

1. **Form Elements:**

<Specify the data sources for each form element and associated logic>

|  |  |  |  |
| --- | --- | --- | --- |
| ID | **Type Of Output** | **Data Type** | **Data Source** |
| 1 | <Fixed Text> | NA | NA |
| 2 | <Number> |  |  |
| 3 | <Dynamic Text> |  |  |

<Specify table A fields and relevant logic to fetch the information>

|  |  |  |  |
| --- | --- | --- | --- |
| ID | **Column Name** | **Data Type** | **Data Source** |
| 1 | <Fixed Text> | NA | NA |
| 2 | <Number> |  |  |
| 3 | <Dynamic Text> |  |  |

<Specify table A summation Fields>

|  |  |  |  |
| --- | --- | --- | --- |
| ID | **Field Name** | **Operation type** | **Operation Logic** |
| 1 | <Fixed Text> | NA | NA |
| 2 | <Number> |  |  |
| 3 | <Dynamic Text> |  |  |

1. **Form Navigation:**

<Define the navigation flow within the form, especially if it consists of multiple pages or sections. Specify any buttons or interactive elements for navigation.>

1. **Digital Signatures:**

<Specify if the form requires digital signatures. Define the process for capturing and validating digital signatures.>

1. **Language and Localization:**

<Specify language requirements for the form. Define how the form should handle multilingual content if applicable.>

1. **Security and Authorization:**

<Specify access control measures for the form. Identify who has permission to view, modify, or print the form.>

1. **Extensions**
2. **Cosmetic Changes in the Fiori Application**
3. **Move Fields**

<Specify name of the Fiori Application>

<Specify the source screen and location of the field and target screen and location of the field>

1. **Group Fields**

<Specify name of the Fiori Application>

<Specify the name for the grouped fields>

<specify fields that needs to be grouped together>

1. **Hide Fields**

<Specify name of the Fiori Application>

<Specify names of the fields those needs to be hidden>

1. **Rename Fields**

<Specify name of the Fiori Application>

<Specify the current name and expected name of the field>

1. **Add new fields in existing Fiori Application**

1. **Fit to standard Checks.**

​​☐​ The functional team explored the feasibility of leveraging the application's existing fields for the intended purpose; however, they encountered certain constraints.

1. **New field details**
2. ***Common Details***

<Name of the Application/Applications where new field needs to be added>

1. ***Field A Details < Repeat this section for all number of fields. 1 section for 1 field >***

<Indicate the specific page within the application where the inclusion of the field is required.>

<Determine whether the field is intended for input or output purposes.>

<Specify whether the field should be editable or set as read-only.>

<Clearly state the desired name for the field to be added on the application page.>

<Explain the linkage between this field and its integration within the application.>

<Define the technical attributes associated with the field.>

<Clarify if a search help is necessary and provide details on the search help screen fields and result set fields if applicable.>

<Outline any validations that should be implemented for the field.>

<Specify conditions under which the field should be visible.>

1. ***Field B Details***

<Indicate the specific page within the application where the inclusion of the field is required.>

<Determine whether the field is intended for input or output purposes.>

<Specify whether the field should be editable or set as read-only.>

<Clearly state the desired name for the field to be added on the application page.>

<Explain the linkage between this field and its integration within the application.>

<Define the technical attributes associated with the field.>

<Clarify if a search help is necessary and provide details on the search help screen fields and result set fields if applicable.>

<Outline any validations that should be implemented for the field.>

<Specify conditions under which the field should be visible.>

1. ***Field N Details***

<Indicate the specific page within the application where the inclusion of the field is required.>

<Determine whether the field is intended for input or output purposes.>

<Specify whether the field should be editable or set as read-only.>

<Clearly state the desired name for the field to be added on the application page.>

<Explain the linkage between this field and its integration within the application.>

<Define the technical attributes associated with the field.>

<Clarify if a search help is necessary and provide details on the search help screen fields and result set fields if applicable.>

<Outline any validations that should be implemented for the field.>

<Specify conditions under which the field should be visible.>

1. **Modify Logic of existing application**
2. **Fit to standard checks**

​​☐​ The functional team confirms that existing configurations cannot be utilized to enable the necessary behavior.

​​☐​ The functional team has verified the absence of any standard application providing similar functionality that could fulfill the business purpose.

1. **Existing Behavior**

<Explain existing behavior with example test case>

1. **Expected Behavior**

<Explain expected behavior after the logic implementation>

<Specify associated Logic>

1. **Add new fields/logic in exiting interface**

1. **Fit to Standard Checks**

​​☐​No existing released SAP Interface/API with the required field/logic exists which can be utilized

​​☐​No Extra fields exist in the current interface that can be repurposed

1. **Type of the interface**

​​☐​Rest API

​​☐​IDoc

​​☐​Web Service

​​☐​RFC

1. **Direction of the interface data flow**

​​☐​Inbound

​​☐​Outbound

1. **Location of new fields**

<API/Web Service - Hierarchy/node where this field needs to be added>

<IDOC – Segment where this field needs to be added>

<RFC - Parameter where this field needs to be added>

1. **Technical attributes of designated fields**

<Field Name>

<Field Data Type and Length>

1. **Logic associated with new fields**

<Inbound – How newly added fields affect the standard process. Specify the logic>

<Outbound – How the information needs to be filled into these fields. Specify the logic>

1. **Validations**

<Specify if any validations are needed on new/existing fields>

<Specify Message Text>

<Specify Message Type>

1. **Interfaces**

Fit to Standard Checks

​​☐​No existing SAP Interface/API exists which can be utilized for the business requirement.

1. **Interface Data Flow Direction**

<Specify the direction of the interface>

​​☐​Inbound

​​☐​Outbound

Interface Pattern

<Define an interface pattern based on Pandora Integration Strategy shown below>

|  |  |  |  |
| --- | --- | --- | --- |
| Select | Pattern No | Pattern Type | Description |
| ​​☐​ | 1A | SAP to SAP Integration | SAP S/4 HANA and SAP CAR Communication |
| ​​☐​ | 1B | SAP to SAP Integration | SAP to SAP with standard integration content |
| ​​☐​ | 2A | Micro Batches / Message Integration | SAP S/4 Inbound – Micro-batches via File upload |
| ​​☐​ | 2B | Micro Batches / Message Integration | SAP S/4 Inbound – Micro-batches via Events |
| ​​☐​ | 3A | Event Driven Integration | SAP S/4 Outbound – Event Driven |
| ​​☐​ | 3B | Event Driven Integration | SAP S/4 Inbound – Event Driven |
| ​​☐​ | 4A | API Integration | SAP S/4 Inbound – API Call, No transformation |
| ​​☐​ | 4B | API Integration | SAP S/4 Inbound – API Call, with mapping option |
| ​​☐​ | 5 | Data Integration | SAP via ETL / Change Data Capture (CDC) |

1. **Interface Diagram**

<Specify the graphical flow for end to end interface flow>

1. **Business Object**

<Provide information related to the business object to be integrated in this interface in both source and target systems. Specify if standard object can be used or potential extension is required.>

1. **Interface Detailed Design**

<Please choose the relevant interface pattern and provide related information as shown in the below table>.

|  |  |  |
| --- | --- | --- |
| Select | Pattern | Required Information |
| ​​☐​ | SAP to SAP | To identify which SAP systems are related to this interface and how the data will be integrated between these systems. |
| ​​☐​ | Micro Batches / Message Integration | To identify which systems are related to this interface and which pattern is being used (processed via file upload or event). For file upload, file structure, field attributes and validation to be defined For event, event trigger to be clarified. |
| ​​☐​ | Event Driven | To identify if it is a publish or consume event. (S/4 Outbound or S/4 Inbound). Any APIs or CDS views or Nexus Data models related to this interface and if any extension required on this object to fulfil this business requirement. |
| ​​☐​ | API Integration | To identify which SAP systems are related to this interface. To identify standard SAP API or webservice related to this interface. Any potential custom API would be required. |
| ​​☐​ | Data Integration | To identify which SAP systems are related to this interface and how data will flow from the business / functional process. |

1. **Target/Source Data Layout**

<Specify details of the Non-SAP Source/Target Data.>

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field ID | File Name / Table | Field Name | Field Description | Type | Size |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. **Interface Mapping & Validation**

<Specify mapping between the external fields and it’s relevant SAP fields>

<Specify if any validations are applicable on each field>

1. **Interface Confirmation and Error Handling**

<Describe possible errors due to input object and/or input content validation failure.>

1. **Interface Security Requirements**

<Describe security condition & related role /profiles to process this interface>.

1. **Batch Requirement**

<Specify if the processing needs to happen on specified time and frequency>

1. **Payload considerations**

<Specify the payload attributes i.e. Payload Type, Payload Size>

1. **Workflows**
2. **Fit to standard checks**

​​☐​Functional team confirms that current requirement is not possible to be configured with existing options available and possible using standard configuration and setups.

​​☐​It was not possible to achieve using flexible workflows paired with Roles and responsibilities application

1. **Process Details**
2. **Current Process**

<Specify functional process associated with the workflow>

1. **Proposed Process with Workflow Requirements**

<Specify the proposed process>

1. **Workflow Design**

1. **Workflow Diagram**

<Presents a visual representation of the SAP Workflow process>

1. **Triggering Events**

<Specify the events that initiate the workflow>

1. **Workflow Steps**

<Specify the sequence of activities within the workflow>

1. **Task Assignments**

<Specify who is responsible for each workflow task>

1. **Escalation and Notifications**

<Specify mechanisms for alerting stakeholders in case of delays or issues>

1. **Decision Points**

<Specify points in the workflow where decisions are made>

1. **Exception Scenarios**

<Specify how the system handles unexpected situations>

1. **Error Logging and Monitoring Testing Requirements**

<Specify mechanisms for logging and monitoring errors during workflow execution>

1. **Automation**
2. **Process Description**

Financial document generated from FI has default Profit Center as per SAP standard logic. Normally it should be determined from Material Master.

Requirement is to determine as per custom logic on the basis of Sold-To-Party and Customer combination automatically without user intervention.

1. **Application details**

FI substitution will be created to re-determine the Profit Center on the basis of Ship-to-Party and Customer combination.

1. **Steps**

FI substitution will be created which will be valid for the company codes and FI Document Types given in the criteria.

Below Sets will be created for Company Codes and Document Types :

ZFI\_PC\_SUB\_BUKRS

ZFI\_PC\_SUB\_BLART

Company codes and Document types will be maintained in the above sets, for which the substitution will work.

This will be an exit based substitution. Code for this exit will be written in Substitution exit program ZGGBS000.

Create a Z table to maintain Profit Center to be determined on the basis of Ship-To-Party and Customer combination.

Table name : ZFI\_PCA\_SUB\_CUST

Description : Default Profit Center for Ship-to-Party and Customer

**Table structure**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Description** | **Data Type** |
| BUKRS | Company Code | CHAR(4) |
| KUNWE | Ship-To-Party | CHAR(10) |
| KUNRG | Sold-To-Party | CHAR(10) |
| PRCTR | Profit Center | CHAR(10) |

This table will be maintained by business users. Fiori App has to be created for this table and a T-code should be created for GUI. T-code should be same as table name.

Logic for substitution exit :

Read field XBLNR, BUKRS from BKPF

Read fields KUNNR and KUNWE from table VBRK

WHERE VBRK-VBELN = BKPF-XBLNR and VBRK-BUKRS=BKPF-BUKRS

Read PRCTR from ZFI\_PCA\_SUB\_CUST

WHERE BUKRS=BKPF-BUKRS

AND KUNWE = VBRK-KUNWE

AND KUNRG = VBRK-KUNRG

Return PRCTR

After user Exit will return PRCTR, it will be populated automatically into FI document being generated to substitute default value.

1. **Data Inputs**

Input data will be automatically fetched from runtime tables in FI substitution as mentioned in the logic.

1. **Result**

Required profit center will be determined from table ZFI\_PCA\_SUB\_CUST.

1. **Notifications**

No notification setup is required.

1. **Unit Test Cases**

Coverage – 100%

1. **Positive Test Cases**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test  No | Test Case /Scenario | Test Steps | Test Data | Expected Result | Automated ? |
|  | Sales Order | Create Sales Order |  | Sales Order should be created |  |
|  | Delivery | Create Delivery |  | Delivery should be created. |  |
|  | Update set for BUKRS | Maintain set ZFI\_PC\_SUB\_BUKRS  With company code |  | Company code should appear in the set |  |
|  | Update set for BLART | Maintain set ZFI\_PC\_SUB\_BLART  With document type RV |  | Document type should appear in the set |  |
|  | Maintain table ZFI\_PCA\_SUB\_CUST | Maintain table for company code, ship to party, sold to party and profit center |  | Table maintained from Fiori app |  |
|  | Billing Document | Create Billing Document |  | Billing accounting document should be posted with the profit center determined from table ZFI\_PCA\_SUB\_CUST | Yes. |
|  | Sales Return | Create Return Credit Memo |  | Profit Center should be auto determined from table ZFI\_PCA\_SUB\_CUST | Yes |

1. **Negative Test Cases**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test No | Test Case /Scenario | Test Steps | Test Data | Expected Result | Automated ? |
|  | Sales Order | Create Sales Order |  | Sales Order should be created |  |
|  | Delivery | Create Delivery |  | Delivery should be created. |  |
|  | Update set for BUKRS | Maintain set ZFI\_PC\_SUB\_BUKRS  With company code |  | Company code should appear in the set |  |
|  | Update set for BLART | Remove document type RV from set ZFI\_PC\_SUB\_BLART |  | Document type should be removed from set |  |
|  | Maintain table ZFI\_PCA\_SUB\_CUST | Maintain table for company code, ship to party, sold to party and profit center |  | Table maintained from Fiori app |  |
|  | Billing Document | Create Billing Document |  | Billing accounting document should be posted with the default profit center | Yes. |
|  | Sales Return | Create Return Credit Memo |  | Default Profit Center should be posted in FI document | Yes |