OpenText Vendor Invoice Management for SAP Solutions

VIM Process Overview

Your Supplier

IDoc **XML** PDF

Inquiry

Supplier Self-Service

Insight & Control

Ingestion	Invoice Recognition	Invoice Verification	Collaboration & Monitoring	Invoice Completion	Payment
Receive	**Transform**	**Verify and Complete**	**Exception Handling**	**Approve**	**Pay**
Electronic	Data mapping	Validate data	Comment	Post invoice	
Scanning		Trigger workflows	Return to vendor	Archive audit trail	
Archiving	OCR				

Archiving for SAP Solutions*

Invoice Capture Center

Vendor Invoice Management

SAP S/4HANA SAP Business Suite

VIM Components

Software component	Latest version (As on Dec2020)	Server	Client	License
Enterprise Scan	20.4	Not Applicable	PC connected to Scanner Scan users' PC	It is Bundled with OCR. No separate license required
BCC/ICC Recognition	16.7.2	Windows Server 2016/2019 MS SQL server 2016/2017.		Number of Invoices – Separate license
Intelligent Capture (IC or IES)	20.4	Windows Server 2016/2019 No DB		Number of Invoices – Separate license
BCC/ICC Validation	20.4		Installed on Validation users' PC	
OTEXVIM (SAP add-on)	20.4 for S/4 HANA 7.6 for ECC 6	SAP		Number of Invoices – Separate license
Archiving & Document Access (SAP Add-on)	20.4	SAP		Number of Users – Separate license
Archive Server/Center(OTAC)	20.2	Windows Server 2016/2019 Linux/SAP HANA MS SQL or Oracle Database		No separate license is required

Post Installation activities

1. Activate BC set – T-code: SCPR20

/OTEXVIM/VIM75_BASELINE_LEGACY   - BC Set Collection for VIM 7.5 - Legacy and New Installation

/OTEXVIM/VIM75_BASELINE_NEWFOR75   - BC Set Collection for VIM 7.5 New Features

/OTEXVIM/VIM75_SP1_CUSTOMIZING VIM 7.5 SP1   - General Customizing - EW3K900861

/OTEXVIM/VIM75_SP2_CUSTOMIZING VIM 7.5 SP2   - General Customizing - EW3K900869

/OTEXVIM/VIM75_SP3_CUSTOMIZING VIM 7.5 SP3   - General Customizing - EW3K900845

/OTEXVIM/VIM75_SP4_CUSTOMIZING VIM 7.5 SP4   - General Customizing - EW3K900947

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/OTEXVIM/VIM75_SP5_CUSTOMIZING VIM 7.5 SP10   - General Customizing - EW3K901105

/OTEXVIM/VIM75_SP6_CUSTOMIZING VIM 7.5 SP11   - General Customizing -   EW3K901232

Post Installation activities

1. S4H System

a. /OTX/PF00_GENERAL_SET_004_04 for the basic settings

b. /OTX/PF01_INBOUND_004_04 for the inbound settings

c. /OTX/PF02_FOUNDATION_004_04 for the foundation configuration

d. /OTX/PS00_BASE_004_04 for the basic settings of Business Center solutions

e. /OTBCSL38/EDOCU_INTEGRATION_SAP for the integration of VIM with SAP eDocument

f. /OTEXVIM/VIM16_3_BASELINE

g.

Upgrade from	BC sets to activate
VIM 16.3	/OTEXVIM/VIM16_3_UPGRADE_SP1 /OTEXVIM/VIM16_3_UPGRADE_SP2 /OTEXVIM/VIM16_3_UPGRADE_SP3 /OTEXVIM/VIM16_3_UPGRADE_SP4

Post Installation activities

2. Configuring workflow dialog tasks

	Task	Dialog Task ID
1	DP WF	00275278
2	PO Parked	00275262
3	PO Blocked Line level	00275265
4	PO Blocked Header	00275267
5	NPO parked	00275260
6	IAP	00275253
7	Referee work item	00275283

Post Installation activities

3. Refresh workflow Buffer – T code SWU_OBU

4. Maintaining number ranges

Object	Description
/PTGWFI/RI	CP Document
/OPT/DOCID	Document Processing
/ORS/STACK	Invoice Approval
/ORS/USRMP	Invoice Approval Usermap
/OPT/REGID	Incoming Document Handling (IDH) framework
/OTX/PF01	Document Registration

Post Installation activities

5. Linking events for VIM workflows– SWE2

Object type	Event Receiver type	Receiver function module Check function module	Usage comments
FIPP	DELETED TS00275270	SWW_WI_CREATE_VIA_EVENT —	Invoice Approval (IAP)
FIPP	POSTED TS00275270	SWW_WI_CREATE_VIA_EVENT —	IAP
BUS2081	DELETED TS00275270	SWW_WI_CREATE_VIA_EVENT —	IAP

Object type	Event Receiver type	Receiver function module Check function module	Usage comments
BUS2081	POSTED TS00275270	SWW_WI_CREATE_VIA_EVENT	IAP
BUS2081	POSTED TS00275264	/OPT/BL_PO_BLK_RECEIVER /OPT/BL_PO_CHECK_ROLL_OUT	Invoice Exception (IE) Posted Approval
/OPT/FIPP	ZWFI_CREATED WS00275254	/OPT/BL_NPO_PRK_RECEIVER /PTGWFI/PIR_F_CHECKFM	IE
/OPT/B2081	ZWFI_PARKED WS00275260	/OPT/BL_PO_PRK_RECEIVER /PTGWFI/PRK_M_CHECKFM	IE
FIPP	DELETED —	/OPT/VIM_RPT_RECEIVER_FM —	VIM Analytics (VAN)
FIPP	POSTED —	/OPT/VIM_RPT_RECEIVER_FM —	VAN
BUS2081	DELETED —	/OPT/VIM_RPT_PO_INV_RECEIVER —	VAN
BUS2081	POSTED —	/OPT/VIM_RPT_PO_INV_RECEIVER —	VAN May be used in special situation. Should be inactive in standard configuration.
BUS2081	RELEASED —	/OPT/VIM_RPT_PO_INV_RECEIVER —	VAN
BUS2081	CANCELLED —	/OPT/VIM_RPT_PO_INV_RECEIVER —	VAN
/ORS/INVAP	POSTED —	/OPT/AAFS_POST_RECEIVER —	Posted Approval

Early Archiving Configuration

1. Create logical archive in OTAC (Archive Center)

2. Create Content Repository – OAC0

3. Create Archive document type – OAC2

4. Link Archive document type to VIM Object – OAC3

5. Maintain workflow document type – SOA0

6. Create preset folder and assign archive document type – OAWS

Early Archiving and BC Inbound Configuration

1. Create logical archive in OTAC (Archive Center)

2. Create Content Repository – OAC0

3. Create Archive document type – OAC2

4. Link Archive document type to VIM Object – OAC3

5. Maintain workflow document type – SOA0

6. Create preset folder and assign archive document type – OAWS

7. Maintain default logical system - /n/OTX/PF00_IMG

8. Early Archiving Setting

9. XML setting for BCC

BC Inbound Document statuses in VIM

User Activity	Status	Program
Scanning	Registered	Archiving Program
	Ready for Extraction	/OTX/PF01_P_IDF_TRIGGER
	Sent to Extraction	BCC Hotspot
	Extraction Completed	BCC Hotspot
	Ready for Validation	/OTX/PF01_P_IDF_TRIGGER
Submit validation	Validation completed	
	Inbound Completed	/OTX/PF01_P_IDF_TRIGGER

Document Processing(DP) in VIM

DP stands for Document Processing

Document Processing (DP) in Vendor Invoice Management (VIM) is primarily used to pre-process data before creating SAP business documents. The DP process can be used as a filter to validate, eliminate potential errors and/or duplicates in the vendor invoice documents.

DP consists of below concepts

- Document type

- Process types

- Business Rules

- Process options

- Roles

- BDC ID

- Duplicate Infrastructure

Document Processing(DP) in VIM

Document type

The document type is the key object in the DP component of VIM. The document type holds key information about how the document is created in the system (from external data using OCR or manual entry etc.), Invoice Type etc

- Highest level attribute, effect the processing, process flow and user interface. A more detailed configuration according to the process and screen layouts is done at the invoice characteristic level; Therefore it is not necessary to create many different document types for individual process settings. Use a document type as a global invoice processing template.

- Determine the SAP transaction to be called during document creation.

- Determine the metadata (index) collection screen layout and fields.

- Can be derived from OCR data using the document type determination rules engine.

- Require no one-to-one relation to SAP ArchiveLink document types

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Process types

- Effect the process flow.

- Can be used in multiple document types.

- Each document type needs at least one process type.

- Determine the initial actor and various collaboration options available to the various actors during the process flow.

Document Processing(DP) in VIM

Business Rules

- Represent a rudimentary engine for determining

  – process type

  – document type (in case of OCR or external data input)

- Use configuration to apply logical conditions.

- Allow defining of multiple criteria.

- Can be specified regarding order and exclusivity.

- Can be used for validating data from external systems (OCR).

- Can be automatically applied to the metadata to effect the process flow.

- Can be configured to be called at multiple stages in the process flow

Roles

- Use the standard OpenText role or actor infrastructure.

- Can use the standard key determination infrastructure to configure complex actor determination logic without programming..

Document Processing(DP) in VIM

Process Options

- Comprise the following main types of options:

- – Actions

- Actions can be based on transactions or class method or workflow tasks.

- – Referrals (for collaboration)

- • Can effect the processing logic.

- • Can effect the user experience.

- • Can trigger the workflow engine to re-run the rules on the most current

- metadata to effect the process flow.

- • Can be configured to change the document status

Document Processing(DP) in VIM

BDC ID

- Build a powerful infrastructure for pre-populating data into SAP transactions without programming

- Are optimized for both dialog processing and background processing

- Allow to set dynamic parameter IDs

- Can be used to configure new user collaboration actions.

- Eliminate the need to code parameterized transactions.

- Allow to configure BDC success messages.

Duplicate check infrastructure

- Builds a comprehensive infrastructure for configuring different duplicate check logic.

- Allows specifying multi-step duplicate check logic

Document Processing(DP) in VIM – Pre-Requisites

Implementing process scenarios in the DP workflow component of VIM comprises
the following main steps:

1. Identify the list of DP document types that are needed.

2. Identify the various process types that are required for realization of the process scenarios.

3. Identify and configure indexing screen fields.

4. Identify the various roles and configure the roles in the appropriate process types.

5. Identify and configure the process options.

6. Identify and configure the business rules to be executed to identify exception processing.

7. Configure global customization setting as per customer requirements.

DP Document Types

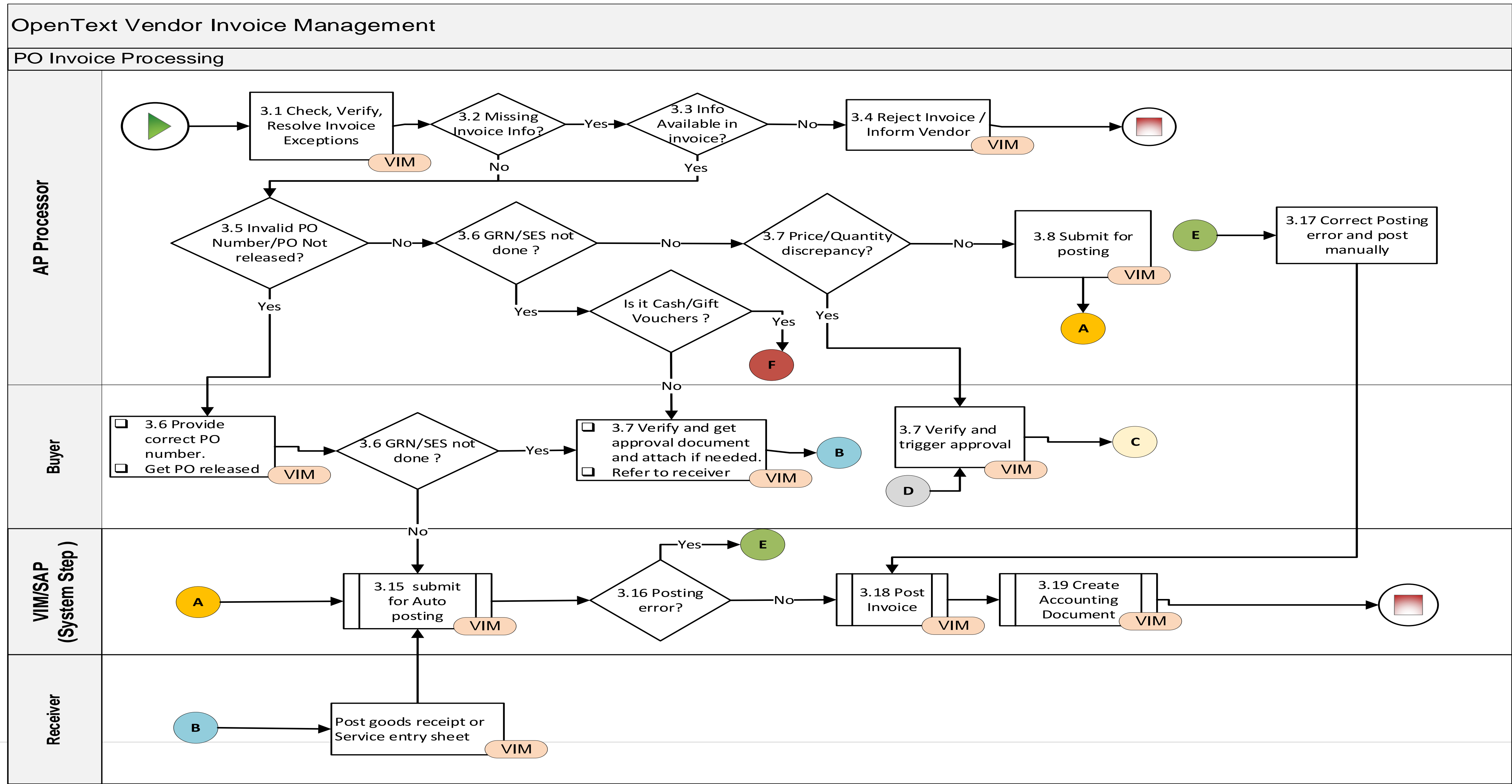| DP Document Type	Description	FI Document Types	Number Range
ZPO_INO	PO Invoice Process	RE	000000000001 to 999999999999

Duplicate Check

Duplicate Invoices will be identified based on Vendor code and Invoice number
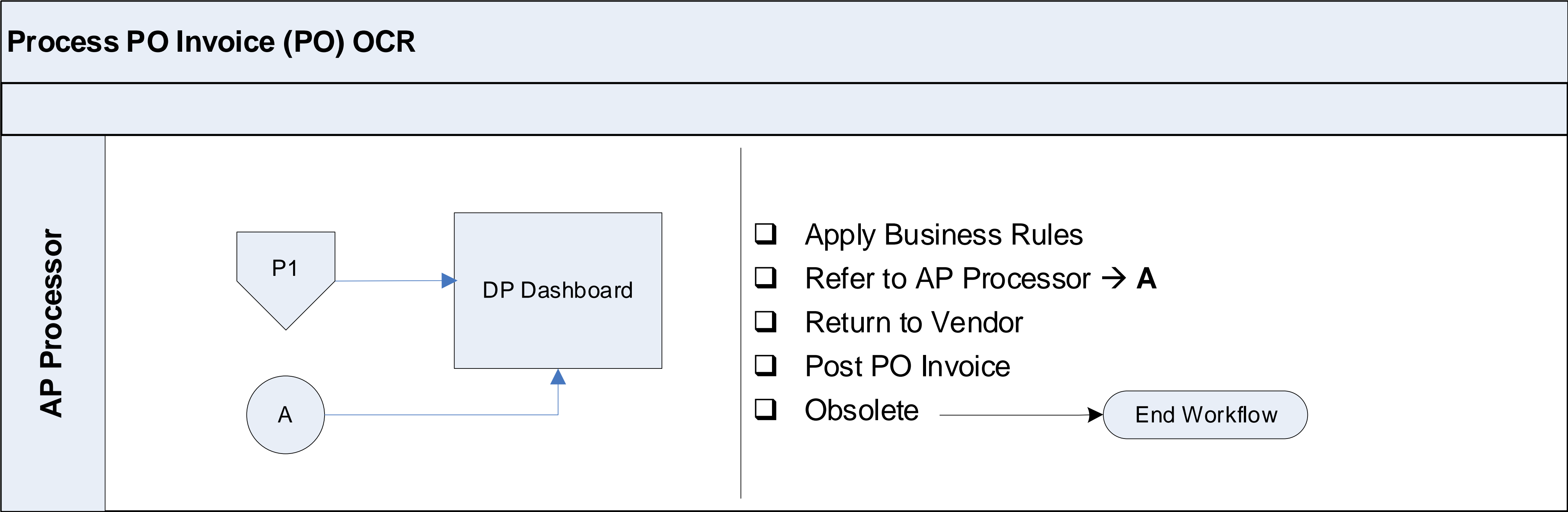
DP Roles

Stakeholders	Key Roles & Responsibilities	VIM Role	Role Type	Determination
Account Payable	• Responsible for receiving PO and NPO invoices. • Responsible for scanning, validate the invoice correctness and take necessary actions if any validation fails. • Responsible to enter G/L code for Non PO based Invoices • Responsible for posting the invoices and resolve posting errors if occurs. • Responsible for liaising with Procurement team, Receiver • Must have a SAP user ID	AP_PROCESSOR	Standard	Company Code
AP Pay Officer	• Responsible for resolving duplicate invoices	AP_PAY_OFFICER	Custom	Company Code
Procurement team	• Responsible for resolving the PO related issues. • Responsible to Verify PO price and Quantity discrepancy Invoices • Responsible for liaising with AP team, Receiver. • Must have a SAP user ID	BUYER	Standard	Function Module (Dynamic)
Receiver	• Responsible for resolving the GR related issues when referred by Procurement team • Responsible for liaising with AP team, Procurement team • Must have a SAP user ID	RECEIVER	Standard	Plant
Validator	• Responsible for validating the invoices after OCR using BCC validation tool	VALIDATOR	Standard	Archive document type
Info provider	• Provide information to AP team/procurement team/receiver to resolve the invoice related exceptions/queries	INFO_PROVIDER	Standard	Manual

Process flow Swimlane

OpenText Vendor Invoice Management

PO Invoice Processing

AP Processor

- 3.1 Check, Verify, Resolve Invoice Exceptions — VIM
- 3.2 Missing Invoice Info?
- Yes → 3.3 Info Available in invoice?
- No → 3.4 Reject Invoice / Inform Vendor — VIM
- No (from 3.2) / Yes (from 3.3)
- 3.5 Invalid PO Number/PO Not released?
- No → 3.6 GRN/SES not done ?
- No → 3.7 Price/Quantity discrepancy?
- No → 3.8 Submit for posting — VIM → A
- E → 3.17 Correct Posting error and post manually
- Yes (3.6) → Is it Cash/Gift Vouchers ? — Yes → F ; No
- Yes (3.5) / Yes (3.7)

Buyer

- 3.6 Provide correct PO number. / Get PO released — VIM
- 3.6 GRN/SES not done ?
- Yes → 3.7 Verify and get approval document and attach if needed. / Refer to receiver — VIM → B
- 3.7 Verify and trigger approval — VIM → C
- D

VIM/SAP (System Step)

- A → 3.15 submit for Auto posting — VIM → 3.16 Posting error?
- Yes → E
- No → 3.18 Post Invoice — VIM → 3.19 Create Accounting Document — VIM
- No (from Buyer)

Receiver

- B → Post goods receipt or Service entry sheet — VIM

Process Options Swimlane

Process PO Invoice (PO) OCR

AP Processor

- ❑ Apply Business Rules
- ❑ Refer to AP Processor → **A**
- ❑ Return to Vendor
- ❑ Post PO Invoice
- ❑ Obsolete ⟶ End Workflow

P1 → DP Dashboard

A → DP Dashboard

DP Role Concept

Roles refer to the grouping of various business users according to their business activity. Vendor Invoice Management (VIM) has a comprehensive framework for realizing various requirements in the area of role definition. You can define roles as granular as needed.

The VIM role framework comprises the following main concepts:

- Role

- Template

- Template fields

DP Role Configuration Steps

1. Define the role   - Tcode: /n/opt/cp_9cx5 . Alternatively, navigate to OpenText Vendor Invoice Management > SAP menu> Roles > Role Maintenance

005 - Document Processing (DP) based product codes

LIX - LIV based product codes (both for PO parking and PO blocking workflows)

PIR -Product codes for Non-PO parking workflows

DP Role Configuration Steps

2. Defining role templates. T-code: /n/opt/cp_9cx2

    1. Key determination (Static)

    • Combination of columns

    • Depends on the business object attributes.

     Example: Company code, scan location and plant define the AP Processor role.

    2. Function Module (Dynamic)

        Set of custom functions that extend baseline functions

        Example: Buyer is the PO creator that the function module extracts from the PO.

    3. SAP HR org structure (Semi-Dynamic)

    Always send to the structure such as a position or work center.

    Example: AP Experts are users attached to a single work center

DP Role Configuration Steps

3.   Assigning templates to roles

Run the /n/opt/cp_9cx2 transaction.

Alternatively, navigate to OpenText Vendor Invoice Management > SAP menu > Roles > Template Maintenance.

4.   Maintaining role determination settings

Run the /n/opt/cp_9cx4 transaction.

Alternatively, navigate to OpenText Vendor Invoice Management > SAP menu > Roles > Simple Mode Role Maintenance.

DP Role workflow – Role play

DP Role	User
Validator	Yuvan
AP_Processor	Iniyan
Buyer	Tamilan
AP_Pay_Officer	Nila
Receiver	Mukilan
Info_Provider	Venba

DP Document type Configuration

Step -1: Create DP document type

T-code: /n/opt/vim_1cx1

/n/opt/spro → Document Processing Configuration →Document Type Configuration → Maintain Document Types

Step -2: Maintain DP document type determination

/n/opt/spro → Document Processing Configuration →Document Type Configuration → Maintain Document Type Determination Procedure

Document type controls following function in VIM workflow

- Number range

- Whether it is PO invoice or non PO invoice or Down payment request

- Invoice accounting FI document types

- Default role for posting errors

- Allowed process types or exceptions

- Allowed functions in VIM dashboard based on VIM roles

- Header and Item field selection – Hide/Display/Mandatory

DP Document Types

DP Document Type	Description	FI Document Types	Number Range
ZPO_INO	PO Invoice Process	RE	000000000001 to 999999999999

Duplicate Check

Duplicate Invoices will be identified based on Vendor code and Invoice number

DP Document Types – Screen selection

Create DP document type

T-code: /n/opt/vim_1cx1

/n/opt/spro → Document Processing Configuration →Document Type Configuration → Maintain Document Types

Process Options Configuration

Process Options

- Run the /n/OPT/VIM_8CX2 transaction.
- Alternatively, navigate to **Vendor Invoice Management** > **Document Processing Configuration** > **Process Configuration** > **Maintain Process Options.**

Process Types Configuration

Process types (Exceptions)

Run the /n/OPT/VIM_8CX1 transaction.
Alternatively, navigate to **Vendor Invoice Management** > **Document Processing Configuration** > **Process Configuration** > **Maintain Process Types**.

Process types (Exceptions)

Sequence No.	Process Type	Business Rule	Initial Actor	Bypass Possible
800	102	Invalid Vendor (PO)	AP_PROCESSOR	NO
805	101	Invalid PO Number (PO)	BUYER	NO
810	104	Invalid Currency (PO)	AP_PROCESSOR	NO
815	106	PO Not Released or Incomplete	BUYER	NO
820	125	Missing Invoice Date (PO)	AP_PROCESSOR	NO
825	133	Vendor Invoice Reference Missing (PO)	AP_PROCESSOR	NO
830	105	Suspected Duplicate (PO)	AP_PAY_OFFICER	NO
835	153	Vendor Mismatch (PO)	AP_PROCESSOR	NO
840	155	Currency Mismatch (PO)	AP_PROCESSOR	YES
845	161	Company Code Mismatch (PO)	AP_PROCESSOR	NO
850	113	Manual Check Needed / Missing Data for Indexing Lines (PO)	AP_PROCESSOR	NO
855	126	Invalid Tax Info (PO)	AP_PROCESSOR	NO
860	406	PO Tolerance Exceeded (PO)	BUYER	YES
865	138	Missing Mandatory Information (PO)	AP_PROCESSOR	NO
870	108	Process PO Invoice (PO) OCR	AP_PROCESSOR	NO

Process Options Swimlane

Process Options for All Process types

AP Processor

P1 → DP Dashboard

A → DP Dashboard

- ❑ Apply Business Rules
- ❑ Refer to AP Processor → **A**
- ❑ Refer to Buyer → **B**
- ❑ Refer To Receiver → **C**
- ❑ Refer for Information → **D**
- ❑ Return to Vendor
- ❑ Obsolete ⟶ End Workflow

Buyer

B → DP Dashboard

- ❑ Create PO
- ❑ Change PO
- ❑ Refer for Information → **D**
- ❑ Refer to AP Processor → **A**
- ❑ Refer to Buyer → **B**
- ❑ Refer to Receiver → **C**

Receiver

C → DP Dashboard

- ❑ Display PO
- ❑ Create GR
- ❑ Refer to AP Processor → **A**
- ❑ Refer to Buyer → **B**
- ❑ Refer to Receiver → **C**
- ❑ Refer for Information → **D**

Info Provider

D → DP Dashboard

- ❑ Refer back to Referring Role

AP Officer

P1 → DP Dashboard

E → DP Dashboard

- ❑ Apply Business Rules
- ❑ Refer to AP Processor → A
- ❑ Confirm Duplicate ⟶ End Workflow
- ❑ Confirm Non-Duplicate