

**AVR- AP Invoice Interface Solution Design**

Doc. No TBC

Version 0.2

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# Project Information

|  |  |
| --- | --- |
| Project Name | Payable Invoice Interface for AVR Program |
| Project Overview | This project will provide automation solution to create payable invoices for Installer to pay the rebate /incentives to installer based on the number of activations performed by them on any given period. |
| Key Objectives | 1. The objective is to utilize, to the best possible extent, the features and functionalities of Oracle Integration Cloud (OIC) and Oracle Payables module for automating the payable invoice creation process. 2. Improve the efficiency of the process by automating the AP Invoice creation process, thereby minimizing the manual effort for AP team. 3. Implementing custom solution to calculate, enrich and transform the rebate incentive data provided by channel management to create payable invoice using REST API/OIC Integrations. 4. Enable reporting to provide summary of Invoices imported to Oracle to AP team . In case of any exceptions, AP team will have to intervene to take necessary corrective action. . 5. This solution will also generate self billing report and send it to Installer which will have details of calculation summary for incentive amount derivation based on number of activations performed by them . |

# Document Control

## Change History

| Date | Author | Version | JIRA Ticket # | Change Reference |
| --- | --- | --- | --- | --- |
| 10/03/2025 | Kannan R | 0.1 |  | Initial Version. |
| 26/03/2025 | Kannan R | 0.2 |  | Updated for the changes in BU derivation and include FBDI template layout definition details |

## Draft Reviewers

| Name | Position | Date |
| --- | --- | --- |
| Ravi Nara | Director of ERP |  |
| GaneshPrasad | Associate Manager, Accounting |  |
| Chandra Mouli | Director, Finance Controller |  |
|  |  |  |

## Internal Audit Reviewer

| Name | Position | Date |
| --- | --- | --- |
|  |  |  |

## Approvers

| Name | Position | Date |
| --- | --- | --- |
| Mary Erginsoy | VP and Chief Accounting Officer |  |

# To Be Process Design

## Process Description

Below is the High-Level Process for AP Invoice Interface Process. Each of these sub-process areas is covered in detail in solution overview section.

**3.1 AP Invoice creation in Oracle Payables**

Below are steps in creating supplier records through RPA automation and process flow,

1. Channel management will perform the calculation based on the number of activation performed by each installer for the month and generate aggregated summary for SKU and other category considered for rebate payment.
2. Sales Finance team will review and confirm to proceed with AP Invoice creation for incentive payments.
3. Integration program will get the details of latest supplier and other key configuration details from Oracle to derive the values for AP Invoice creation.
4. Integration programs will derive detail required to create AP invoice and create Ap invoice with multiple lines with one line each for every category of incentives provided in the calculation for AVR rebate payments.
5. AVR payables invoices will be auto approved (TBC) and no workflow approval will be required.

**Process Flow diagram**

A diagram of a company

AI-generated content may be incorrect.

# Solution Overview

### Introduction

* As part of AVR rebate programs, installer will be paid incentives based on the number of activation done by them .Currently finance team is manually calculating the numbers and this process will be automated . Incentive calculation will be performed in Channel management and this data will be used to create AP Invoices in Oracle to make payments to installers for the same.

### AVR Incentive Calculation Installer

* Depends upon the number of activation performed by Installers, Channel management application will calculate the incentive to be paid to installer based on below category,

1. Number of Installation done for each SKU
2. Volume discount based on total activation
3. Per Unit discount based on eligibility

As a result of this calculation, channel management will have the final numbers for the amount to be paid as incentives for installers .This calculation and amount will be reviewed and approved by Sales finance team.

### Data enrichment in ATP

* Integration programs will perform validation check on the data supplied from CHM for the below key attributes,

1. Supplier Is valid and active
2. Total invoice amount matches with all invoice lines
3. TBC

If any of the validation fails then record will marked as exceptions and report will be send to Sales Finance /AP Team / Finance IT team for action

### AP Invoice Creation

* AP Invoices will be created through FBDI approach . The below are design approach to derive key attributes to be used for AP Invoice creation ,

### Invoice Source

A new invoice source will be created ( MSI) for this type of invoices. Invoice approval workflow rules will be amended to automatically approve all invoices of this type.

### Business Unit to be used for Invoice:

Marketing service incentive (MSI) AP invoices will be created in the same business where revenue is booked for respective installation .The below are countries in scope for initial phase and BU to be used for respective countries ,

|  |  |
| --- | --- |
| **Country** | **BU To be used** |
| GB | ENE NLD Business Unit |
| IT | ENE NLD Business Unit |
| ES | ENE ESP Business Unit |
| DE | ENE NLD Business Unit |

### Supplier Site:

Use the supplier site of BU identified for Invoice .

### Tax Calculation:

Tax team clarified that they concluded that from a VAT perspective, the nature of payments to Installers qualifies as a consideration for the supply of promotional / marketing services supplied by Installers . It will be captured as B2B supply of services under the reverse charge mechanism. VAT will be calculated in Oracle Fusion tax engine based on the below criteria,

|  |  |
| --- | --- |
| **Category** | **VAT Applicable** |
| Installer & Invoice Booking BU in different country | 0% VAT |
| Installer & Invoice Booking BU in same country | Applicable VAT |

The self-billing invoice should state that Invoice generated by customer

### GL Account for AP Invoice Expense Line

The below table describes the approach to derive the GL accounting code for MSI AP invoices,

|  |  |  |
| --- | --- | --- |
| **GL Accounting Segment** | **Derivation Approach** | **Sample Value** |
| Entity | Derived from BU of AP Invoice | 240 ( for NL) |
| Dept | Default Value | 0000 |
| Account | Default Value | 213000 (TBC) |
| Intercompany | Default Value | 000 |
| Product | Default Value | 00000 |
| LOB | Default Value | A00 |
| Tax Jurisdiction | Default Value | 000 |
| Project | Default Value | 0000 |

### Invoice Lines:

There are additional information required for self billing . Hence there will be one invoice line added for each lines in the aggregated results category of incentive calculations from channel management . A DFF context will be created with below set of attributes to capture details of individual incentive category lines to generated self billing invoice. The below are the attributes in new DFF to be enabled at Invoice line level ,

1. Site Name
2. Site ID
3. Device SKU
4. Customer Key
5. Enlighten Key
6. Incentive Type
7. MSI Agreement ID
8. Term name
9. Level

### FBDI Mandatory Attributes for Invoice Header

The below are key attributes to create AP Invoices record. Full file layout for FBDI Template is provided in annexure section ,

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field Position.** | **Field Name** | **Sample Value** | **Filed Required** | **Derivation Logic** | **Validation** |
| 1 | Invoice ID | 10002 | Yes | Derived in CHM |  |
| 2 | Business Unit | ENE NLD Business Unit | Yes | Derived in ATP based on country code to BU lookup |  |
| 3 | Source | MSI | Yes | Default Value | MSI |
| 4 | Invoice Number | MSI\_NL\_90003 | Yes | Derived in CHM | MSI\_<>Country\_code>\_Unique\_seq |
| 5 | Invoice Amount | 1000.00 | Yes | Derived in CHM | Amount Excluding Tax. This amount should match with total amount of all Invoice Lines |
| 6 | Invoice Date | 2025/03/01 | Yes | Derived in CHM |  |
| 7 | Supplier Name | SOLY NL B2C B.V. | Yes | Derived in Integration | Supplier should exists in Oracle. Validate the existance and active record of Supplier /Site |
| 8 | Supplier Number | 104518 | Yes | Derived in Integration | Either Supplier Name or Number |
| 9 | Supplier Site | GRONINGEN | Yes | Derived in Integration |  |
| 10 | Invoice Currency | EUR | Yes | Derived in CHM |  |
| 12 | Description | Marketing Services Incentive (MSI) | Yes | Default Value |  |
| 13 | Import Set | MSI\_NL\_20250321\_4 | Yes | Derived in CHM | Proposed : MSI\_<Country\_CODE>\_YYYYMMDD\_HHMISS |
| 14 | Invoice Type | STANDARD | Yes | Default Value |  |
| 20 | Payment Terms | Immediate | Yes | Default Value | Value TBC |
| 25 | Payment Method | E\_WIRE | Yes | Derived in Integration | For all Europe based installers, Its E\_WIRE |
| 72 | Calculate Tax During Import | Y | Yes | Default Value |  |
| 73 | Add Tax To Invoice Amount | Y | Yes | Default Value |  |

### FBDI Mandatory Attributes for Invoice Lines

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field Position.** | **Field Name** | **Sample Value** | **Filed Required** | **Derivation Logic** | **Validation** |
| 1 | Invoice ID | 10002 | Yes | Same as Invoice Header |  |
| 2 | Line Number | 1 | Yes | Increase sequence value within Invoice start with 1 | Unique within Invoice |
| 3 | Line Type | ITEM | Yes | Default Value |  |
| 4 | Amount | 500.00 | Yes | Line Amount ( Quantity mutiplied by Rate/Unit Price) | Rounded to 2 decimals |
| 5 | Invoice Quantity | 100 | Yes | Number of Activations performed |  |
| 6 | Unit Price | 5.00 | Yes | Incentive per Unit |  |
| 8 | Description | System Size Incentive -IQ8MC-72-M-INT | Yes | Derived in CHM | Concatenation of Incentive Type and Device SKU |
| 22 | Distribution Combination | 240.0000.213000.000.00000.A00.000.0000 | Yes | Default Value except First segment ( Entity 240) | Entity code is derived based on Business Unit and all other values constant. Sales Finance to confirm GL account to be used. |
| 36 | Product Type | SERVICES | Yes | Default Value |  |
| 50 | Line Group Number | 1 | Yes | Default Value |  |
| 66 | Attribute Category | ENE\_MSI\_AP\_LINES\_DFF | Yes | Default Value |  |
| 67 | Attribute 1 | MSI # 7659 | Yes | Derived in CHM | MSI Agreement ID |
| 68 | Attribute 2 | 1/1/25 to 3/31/25 | Yes | Derived in CHM | Term Name |
| 69 | Attribute 3 | Level 1 | Yes | Derived in CHM | Level Name |
| 70 | Attribute 4 | Test Site 1 | Yes | Derived in CHM | Site Name |
| 71 | Attribute 5 | 5666981 | Yes | Derived in CHM | Site ID |
| 72 | Attribute 6 | IQ8MC-72-M-INT | Yes | Derived in CHM | Device SKU |
| 73 | Attribute 7 | 3298724 | Yes | Derived in CHM | Customer Key |
| 74 | Attribute 8 | 639242 | Yes | Derived in CHM | Enlighten Key |
| 75 | Attribute 9 | System Size Incentive | Yes | Derived in CHM | Incentive Type |
|  |  |  |  |  |  |

### Generate Self Billing Invoice document

A new report will be generated based on AP invoices imported to Oracle and PDF copy of invoice along with calculation of incentive amount based on activation performed will be generated in Oracle payables and it will be emailed to installer for the email id registered in their supplier master records,

Key attributes required to generate Self Billing Invoice is provided in below table. Sample template with data is available in annexure section ,

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Field Name** | **Description** | **Data Source** | **Validation** |
| **Self Biling Invoice Main Section** | | | | |
| 1 | Invoice Number | Invoice Number | Invoice Header |  |
| 2 | Invoice Currency | Currency to be used for invoicing and payments | Invoice Header |  |
| 3 | Invoice date | Invoice Date | Invoice Header |  |
| 4 | Invoice Amount | Invoice Amount | Invoice Header |  |
| 5 | Supplier Name and Address | Supplier Name and Address | Invoice Header / Supplier Master |  |
| 6 | Ship to / Bill To address | Ship to / Bill To address | Enphase Legal Address for BU |  |
| 7 | Description | Description | Default Value | Marketing Services Incentive (MSI) |
| 8 | Quantity | Quantity | Invoice |  |
| 9 | Tax Amount | Tax Amount | Default Value |  |
| 10 | Invoice Group | Invoice group | Derived in Integration |  |
| 11 | Invoice Source | Invoice Source | Default value |  |
| 12 |  |  |  |  |
| **Self Billing Invoice Annexure Section** | | | | |
| 1 | Incentive Type | Incentive Type | Derived from Invoice Line DFF |  |
| 2 | Device Count | Device Activation Count | Derived from AP Invoice Line quantity |  |
| 3 | Customer Key | Customer Key | Derived from Invoice Line DFF |  |
| 4 | Enlighten ID | Enlighten ID | Derived from Invoice Line DFF |  |
| 5 | Device SKU Name | Device SKU Name | Derived from Invoice Line DFF |  |
| 6 | Site ID | Site ID | Derived from Invoice Line DFF |  |
| 7 | Site Name | Site Name | Derived from Invoice Line DFF |  |
| 8 | Rate | Rate | Derived from Invoice Line ( Unit Selling price) |  |
| 9 | Incentive Amount | Incentive Amount | Derived from AP Invoice Line Amount |  |
| 10 | Level | Level | Derived from Invoice Line DFF |  |
| 11 | Period | Period | **TBC** | To be raised with Sales Finance .Payment likely to weekly. Hence Date or Month to be printed |
| 12 | Grant Total | Grant Total | Total of all lines Excluding Tax |  |

# System components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **#** | **System** | **Steps** | **Activity** | **Solution Category** | **Solution** |
| 1 | CHM | Installer Incentive calculation | Calculate the incentive amount based on number of activation performed in any given month | Database programs | Calculation based on below, 1. Number of Installation done for each SKU 2. Volume discount based on total activation 3. Per Unit discount based on eligibility |
| 2 | CHM | Approval for Incentive calculation | Review and approve the incentive payment amounts | Manual | Manual review by Sales Finance |
| 3 | CHM | Data Validation | Data Validation for Oracle AP Invoice | Integration | Perform validation and mark exception records for subsequent processing or manaul corrective action.  If the supplier master record is not available then it will be marked as Hold and picked up in subsequent run |
| 4 | CHM (ATP) | Data enrichment for AP Invoice | Data enrichment for AP Invoice | Integration | Perform below data enrichment, 1 . Drive BU for Invoicing  2.Derive Supplier Sites  3. Tax Calculation  4.Invoice WF Approval 5.DFF attributes required  6.Invoice Description  7.GL Account for Invoice Lines |
| 5 | Oracle Payables | Payable Invoice Creation | Import AP Invoices with multiple lines for each installer | Integration | Create multiple line invoice based on calculation performed in CHM |
| 6 | OIC Automation | Process Summary | Send email to Sales Finance /IT /AP team with details of successfully created AP Invoices and exceptions details | Integration | Generate report for processing summary and send the exceptions to Sales Finance /IT/AP team for any corrective actions |
| 7 | Invoice copy delivery through BIP/OIC | Self Billing Invoice copy delivery to Installer | Send email to installer with Self billing invoice copy | Integration | Generate Self billing Invoice copy and send it to Installer based on their remittance advice email |

# Reports

The below report will be developed to implement the solution,

#### Execution summary for MSI AP Creation Automation

This report will be generated from ATP/ Oracle to provide summary of AP Invoice creation and any exceptions reported in the process

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Field Name** | **Field Description** | **Data Type** | **Sample Value** |
| **Report Summary** | | | | |
| 1 | PROCESSING\_DATE | Date of Integration run | Date |  |
| 2 | TOTAL\_NUMBER\_OF\_INVOICES\_RECEIVED | Total Number of Invoices received for current run | Number |  |
| 3 | TOTAL\_NUMBER\_OF\_SUCCESSFULLY\_PROCESSED\_INVOICES | Total Number Invoices successfully processed by Integration | Number |  |
| 4 | NUMBER\_OF\_ERROR\_INVOICES\_CHN | Total number of Invoices completed in error due to validation failures in CHM/ATP | Number |  |
| 5 | NUMBER\_OF\_ERROR\_INVOICES\_ORACLE | Total number of Invoice Import Error in Oracle AP | Number |  |
| 6 | GRANT\_TOTAL\_OF\_ALL\_ERRORS | Total number Errors /exceptions in the batch | Number |  |
| **Report Detail** | | | | |
| 11 | SUPPLIER NAME | Name of the Installer | Char |  |
| 12 | SUPPLIER NUMBER | Supplier Number | Number |  |
| 13 | INVOICE AMOUNT | Invoice Amount | Number |  |
| 14 | SFDC KEY | Derived SFDC key | Char |  |
| 15 | STATUS OF INVOICE IMPORT | Invoice Import Status | Char | SUCCESS, ERROR |
| 16 | BUSINESS\_UNIT | Business Unit used for Invoice Creation | Char |  |
| 17 | INVOICE NUMBER | Invoice Number | Char |  |
| 18 | ERROR\_MESSAGE | Error Message | Char |  |
|  |  |  |  |  |

# Key Contributors and Contacts

| System / Module Name | Primary Contact | | Secondary Contact(s) | |
| --- | --- | --- | --- | --- |
| Name | Email | Name | Email |
|  |  |  |  |  |
|  |  |  |  |  |

## Document References

| # | Document | Document link / Reference ID |
| --- | --- | --- |
| 1 |  |  |

# Assumptions

| # | Assumptions |
| --- | --- |
| 1 |  |
| 2 |  |
| 3 |  |

# Requirements Fitment Summary

## Requirement Details

| Serial No. | Requirement Description | Fit/  Gap | Type | Fitment/Gap Summary |
| --- | --- | --- | --- | --- |
| **MSI AP Invoice Creation** | | | | |
|  |  |  |  |  |
|  |  |  |  |  |

# Open / Closed Issues

## Open/Closed Issues

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **#** | **Issue** | **Raised By** | **Assigned/ Responsibility** | **Resolution** | **Resolved By/ Date Completed** | **Status** |
| 1 | Tax Applicability for MSI Invoice | IT team | Tax Team | Tax will be applicable If the installer is based in same country of BU | 24-Mar-25 | Closed |
| 2 | GL Account for MSI AP Invoice Lines | IT Team | Sales Finance /AP Team |  |  | Open |
| 3 | Payment Term to be used for MSI Invoice | IT Team | Sales Finance /AP Team |  |  | Open |
| 4 | Currency Code to be used for AP Invoice | IT Team | Sales Finance /AP Team |  |  | Open |
| 5 | Confirmation required for Auto approval of MSI AP invoices in Oracle | IT Team | AP team |  |  | Open |
| 6 |  |  |  |  |  |  |

# Appendix

**FBDI Template with full set of fields :**

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**Self Billing Template :**

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**Sample AP Invoices created for MSI Incentive :**

MSI Invoices with Tax :

A screenshot of a computer

AI-generated content may be incorrect.

Lines & Tax :

A screenshot of a computer

AI-generated content may be incorrect.

**Invoice Line DFF :**

A screenshot of a computer

AI-generated content may be incorrect.

**MSI Invoice with No Tax :**

**A screenshot of a computer

AI-generated content may be incorrect.**