

# Framework for Integrating Retail Organization with Marketplace for Cash Reconciliation

Padmanaban Sanjeevi  
Office Depot

**Abstract:-** Retail organizations sell their product portfolios mainly through their brick and mortar stores. To increase their clientele, they started to offer their products via online portals. This approach would bring an increase in sales at a cost to the organization, due to the need for advertisements. To solve this issue, retail organizations have chosen to sell their products through global e-commerce marketplaces, such as Amazon, eBay, Rakuten and Google, enabling them to expand their range of customers thereby improving their sales revenue.

Any organization will face a challenge when integrating with each different marketplace because each marketplace will use a different data structure for capturing sales information.

Any organization that utilizes a marketplace must develop new programs to ensure successful integration.

This article provides the details on the framework that will be used for seamlessly for any kind of marketplace integration for the systematic reconciliation of sales transactions with the bank statements in cash management.

**Keywords:** Marketplace, sku, seller central

## INTRODUCTION

For any organization which implements the marketplace, the following steps has to be followed.

- Catalog of products which would be available in marketplace for sale
- A Seller central which acts as mediator between the marketplace and the seller (organization which sells the product in marketplace)
- Mechanism to send the available inventory of products to the seller central, so that when the customer place the order, marketplace will check the seller central for the available quantity of the product
- A seller central which sends the order details to the retail organization to process the orders and ship the products to the customer
- Marketplace would use their own payment processor or another vendor such as PayPal to process the payments and send the details to the bank
- Reconciliation report from Marketplace for sale order reconciliation
- Bank statements sent to retail organization for the reconciliation

This article provides the details of the framework for the reconciliation of the Sales order transactions and bank statements from banks.

## Translations Setup

Translation mappings have been created to capture the details for each marketplace.

## SETTLEMENT PROCESSES

This translation has been defined to capture information such as file type, filename, formatting, url location to download the file, target location where the file would be placed for further processing

Translation Values

Translation Name	SETTLEMENT PROCESSES	<input checked="" type="checkbox"/> Enabled				
Description						
Start Date	16-MAY-2015	Related Module				
End Date		Source				
Purpose		Target				
Values						
Enabled	Start Date	End Date	PROCESS_NAME (Source Value1)	FILEMAP_TRANSLATION (Source Value2)	URL (Target Value1)	AccessKeyId (Target Value2)
<input checked="" type="checkbox"/>	16-MAY-2015		AMAZON_MWS		<a href="https://mws.amazonservices">https://mws.amazonservices</a>	
<input checked="" type="checkbox"/>	07-MAY-2018		RAKUTEN_MPL	PRE_STG_RAKUTEN		
<input checked="" type="checkbox"/>	07-MAY-2018		EBAY_MPL			
<input checked="" type="checkbox"/>	07-MAY-2018		WALMART_MPL	PRE_STG_WALMART	<a href="https://marketplace.walmart">https://marketplace.walmart</a>	
<input type="checkbox"/>						

PROCESS_NAME	WALMART_MPL	RAKUTEN_MPL
Filemap_Translation	PRE_STG_WALMART	PRE_STG_RAKUTEN
URL	<a href="https://marketplace.walmartapis.com/v3/report/reconreport/reconFile?reportDate=">https://marketplace.walmartapis.com/v3/report/reconreport/reconFile?reportDate=</a>	<a href="https://marketplace.rakutenapis.com/v1/report/reconreport/reconFile?reportDate=">https://marketplace.rakutenapis.com/v1/report/reconreport/reconFile?reportDate=</a>
AccessKeyId		
SecretAccessKey		
AppName	XYZ Company	XYZ Company
AppVersion	1	1
ReportType	Wal-Wal	Rakuten-Rakuten
InboundDirectory	\$XXFIN_DATA/inbound/mpl	\$XXFIN_DATA/inbound/mpl
FileName	Walmart_recon_mmddyyyy.csv	Rakuten_recon_mmddyyyy.txt
ArchiveDirectory	\$XXFIN_DATA/archive/inbound	\$XXFIN_DATA/archive/inbound
FilePosition	0	0
ProcessType	WALMART	RAKUTEN
ProcessorID	WALMART	RAKUTEN
ProviderType	WALMART	RAKUTEN
Card type	WALMART	RAKUTEN
CutoffDate		
Separator	COMMA	TAB
URL2	<a href="https://marketplace.walmartapis.com/v3/token">https://marketplace.walmartapis.com/v3/token</a>	<a href="https://marketplace.rakutenapis.com/v1/token">https://marketplace.rakutenapis.com/v1/token</a>

#### PRE\_STG\_MAPPING

A translation has been defined for each marketplace to define the mapping for the data element to the predefined columns in a custom staging table (XX\_CE\_MARKETPLACE\_PRE\_STG).

#### PRE\_STG\_WALMART

This translation defines mapping for the Walmart sales reconciliation file

**Translation Values**

Translation Name	PRE_STG_WALMART		Enabled				
Description	Market Place File upload Column Mapping with table XX_CE_MARKETPLACE_PRE_STG						
Start Date	26-JUN-2018	Related Module	xxfin				
End Date		Source					
Purpose		Target					
Values							
Enabled	Start Date	End Date	PROCESS (Source Value1)	FILENAME (Source Value2)	FILETYPE (Source Value3)	FILECOLUMN (Source Value4)	TAB (Target)
✓	26-JUN-2018		WALMART_MPL	WalmartSettlement.csv	Wal	Tax_on_Sales_Revenue	ATTI
✓	26-JUN-2018		WALMART_MPL	WalmartSettlement.csv	Wal	Tax_on_Shipping_Revenue	ATTI
✓	26-JUN-2018		WALMART_MPL	WalmartSettlement.csv	Wal	Tax_on_Gift_Wrap_Revenue	ATTI
✓	26-JUN-2018		WALMART_MPL	WalmartSettlement.csv	Wal	Tax_on_Fee_Revenue	ATTI
✓	26-JUN-2018		WALMART_MPL	WalmartSettlement.csv	Wal	Effective_tax_rate	ATTI
✓	26-JUN-2018		WALMART_MPL	WalmartSettlement.csv	Wal	Tax_on_Refunded_Sales	ATTI
✓	26-JUN-2018		WALMART_MPL	WalmartSettlement.csv	Wal	Tax_on_Shipping_Refund	ATTI
✓	26-JUN-2018		WALMART_MPL	WalmartSettlement.csv	Wal	Tax_on_Gift_Wrap_Refund	ATTI
✓	26-JUN-2018		WALMART_MPL	WalmartSettlement.csv	Wal	Tax_on_Fee_Refund	ATTI

### PRE\_STG\_RAKUTEN

This translation defines mapping for the Rakuten sales reconciliation file

**Translation Values**

Translation Name	PRE_STG_RAKUTEN		Enabled				
Description	Market Place File upload Column Mapping with table XX_CE_MARKETPLACE_PRE_STG						
Start Date	07-JUN-2018	Related Module	xxfin				
End Date		Source					
Purpose		Target					
Values							
Enabled	Start Date	End Date	PROCESS (Source Value1)	FILENAME (Source Value2)	FILETYPE (Source Value3)	FILECOLUMN (Source Value4)	TAB (Target)
✓	18-JUN-2018		RAKUTEN_MPL	RakutenTDRSettlement.csv	0051253	InvoiceId	Attr1
✓	18-JUN-2018		RAKUTEN_MPL	RakutenTDRSettlement.csv	0051253	TranDate	Attr1
✓	18-JUN-2018		RAKUTEN_MPL	RakutenTDRSettlement.csv	0051253	TranType	Attr1
✓	18-JUN-2018		RAKUTEN_MPL	RakutenTDRSettlement.csv	0051253	OrderId	Attr1
✓	18-JUN-2018		RAKUTEN_MPL	RakutenTDRSettlement.csv	0051253	OrderItemId	Attr1
✓	18-JUN-2018		RAKUTEN_MPL	RakutenTDRSettlement.csv	0051253	ListingId	Attr1
✓	18-JUN-2018		RAKUTEN_MPL	RakutenTDRSettlement.csv	0051253	ReferenceId	Attr1
✓	18-JUN-2018		RAKUTEN_MPL	RakutenTDRSettlement.csv	0051253	ItemName	Attr1
✓	18-JUN-2018		RAKUTEN_MPL	RakutenTDRSettlement.csv	0051253	BuyerEmail	Attr1

A database view is created based on the mapping from the custom staging table for each market place.

The following is the view definition for the Walmart Marketplace.

```
create or replace force editable view xx_ce_walmart_pre_stg_v (rec_id, report_date, process_name, filename, file_type, request_id, process_flag, err_msg, settlement_id, walmart_order, walmart_order_line, walmart_po, walmart_po_line, partner_order, transaction_type, transaction_date_time, shipped_qty, partner_item_id, partner_gtin, partner_item_name, product_tax_code, shipping_tax_code, gift_wrap_tax_code, ship_to_state, ship_to_county, county_code, ship_to_city, zip_code, shipping_method, total_tender_customer, payable_to_partner, commission_from_sale, commission_rate, gross_sales_revenue, refunded_retail_sales, sales_refund_for_escnl, gross_shipping_revenue, gross_shipping_refunded, shipping_refund_for_escnl, net_shipping_revenue, gross_fee_revenue, gross_fee_refunded, fee_refund_for_escalation, net_fee_revenue, gift_wrap_quantity, gross_gift_wrap_revenue, gross_gift_wrap_refunded, gift_wrap_refund_for_escnl, net_gift_wrap_revenue, tax_on_sales_revenue, tax_on_shipping_revenue, tax_on_gift_wrap_revenue, tax_on_fee_revenue,
```

```

effective_tax_rate, tax_on_refunded_sales, tax_on_shipping_refund, tax_on_gift_wrap_refund, tax_on_fee_refund,
tax_on_sales_refund_for_escln, tax_shipping_refund_escln, tax_gift_wrap_refund_escln, tax_fee_refund_escln,
total_net_tax_collected, adjustment_description, adjustment_code, original_item_price, original_commission_amount,
spec_category, contract_category) as select rec_id, report_date, process_name, filename, file_type, request_id,
process_flag, err_msg, settlement_id, attribute1 walmart_order, attribute2 walmart_order_line, attribute3 walmart_po,
attribute4 walmart_po_line, attribute5 partner_order, attribute6 transaction_type, attribute7 transaction_date_time,
attribute8 shipped_qty, attribute9 partner_item_id, attribute10 partner_gtin, attribute11 partner_item_name, attribute12
product_tax_code, attribute13 shipping_tax_code, attribute14 gift_wrap_tax_code, attribute15 ship_to_state, attribute16
ship_to_county, attribute17 county_code, attribute18 ship_to_city, attribute19 zip_code, attribute20 shipping_method,
attribute21 total_tender_customer, attribute22 payable_to_partner, attribute23 commission_from_sale, attribute24
commission_rate, attribute25 gross_sales_revenue, attribute26 refunded_retail_sales, attribute27 sales_refund_for_escalcn,
attribute28 gross_shipping_revenue, attribute29 gross_shipping_refunded, attribute30 shipping_refund_for_escalcn,
attribute31 net_shipping_revenue, attribute32 gross_fee_revenue, attribute33 gross_fee_refunded, attribute34
fee_refund_for_escalation, attribute35 net_fee_revenue, attribute36 gift_wrap_quantity, attribute37
gross_gift_wrap_revenue, attribute38 gross_gift_wrap_refunded, attribute39 gift_wrap_refund_for_escalcn, attribute40
net_gift_wrap_revenue, attribute41 tax_on_sales_revenue, attribute42 tax_on_shipping_revenue, attribute43
tax_on_gift_wrap_revenue, attribute44 tax_on_fee_revenue, attribute45 effective_tax_rate, attribute46
tax_on_refunded_sales, attribute47 tax_on_shipping_refund, attribute48 tax_on_gift_wrap_refund, attribute49
tax_on_fee_refund, attribute50 tax_on_sales_refund_for_escalcn, attribute51 tax_shipping_refund_escln, attribute52
tax_gift_wrap_refund_escln, attribute53 tax_fee_refund_escln, attribute54 total_net_tax_collected, attribute55
adjustment_description, attribute56 adjustment_code, attribute57 original_item_price, attribute58
original_commission_amount, attribute59 spec_category, attribute60 contract_category from xx_ce_marketplace_pre_stg
where process_name ='WALMART_MPL' and file_type='WAL';

```

With this framework, whenever a new marketplace is implemented, just a new mapping and the corresponding view need to be defined other than the creation of new database objects and modification of the program for each marketplace.

#### CE\_MKTPLC\_DL

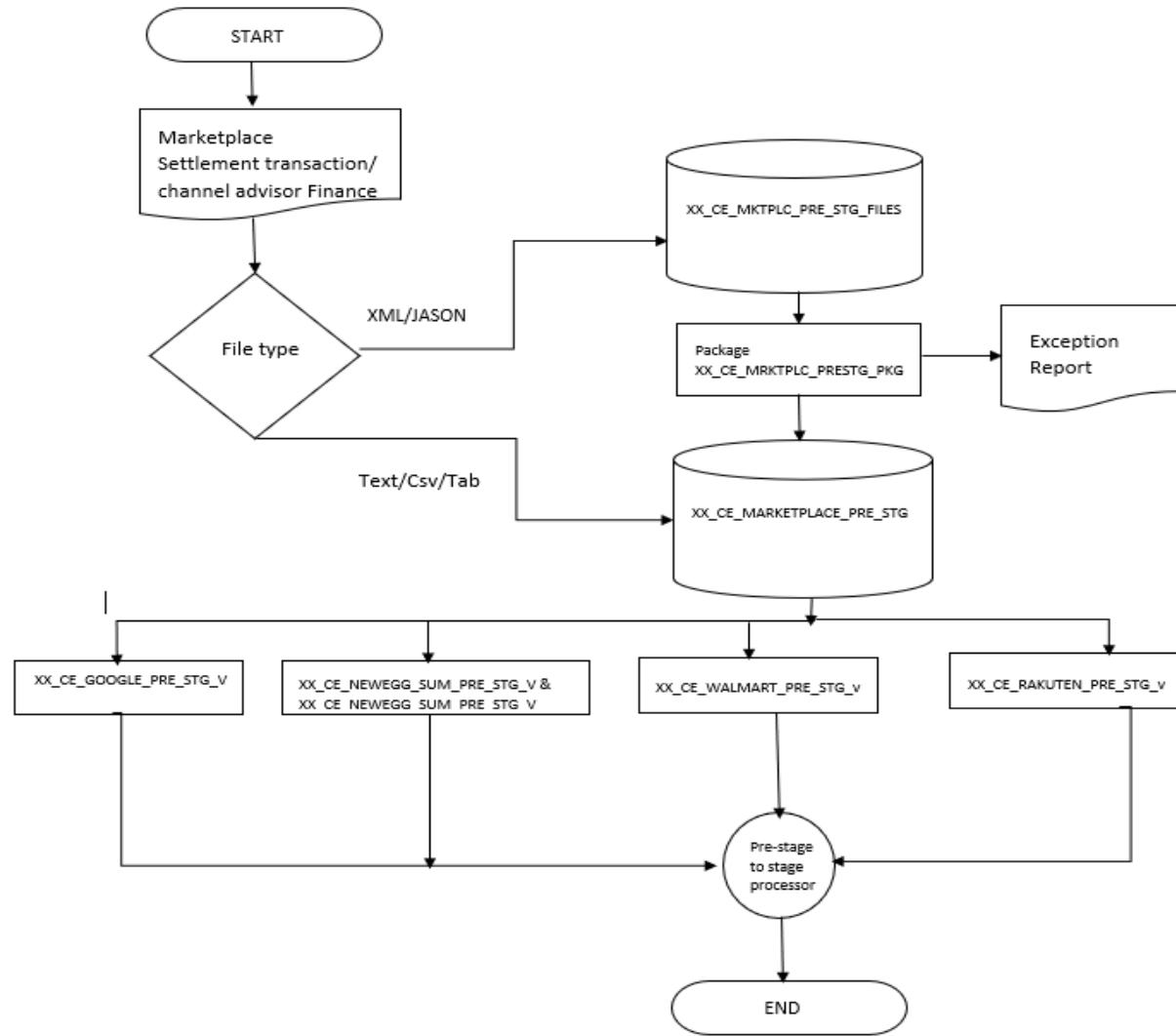
This translation defines mapping for the exceptions encountered during the processing of reconciliation files

Translation Values					
Translation Name		CE_MKTPLC_DL			
Description		Translation to send email for bad record			
Start Date	10-AUG-2018	Related Module	xxfin		
End Date		Source			
Purpose		Target			
Values					
Enabled	Start Date	End Date	Exception Values (Source Value1)	SUBJECT (Target Value1)	CONTENT_LINE1 (Target Value2)
<input checked="" type="checkbox"/>	20-SEP-2018		EXCEPTION	Market Place Loading Error	Errors encountered while loading the file. Please check the file.
<input checked="" type="checkbox"/>	03-JAN-2019		FILE_ERROR_EXCEPTION	Unprocessed Settlement File	Please find attached unprocessed Settlement File. Cash Management
<input type="checkbox"/>					

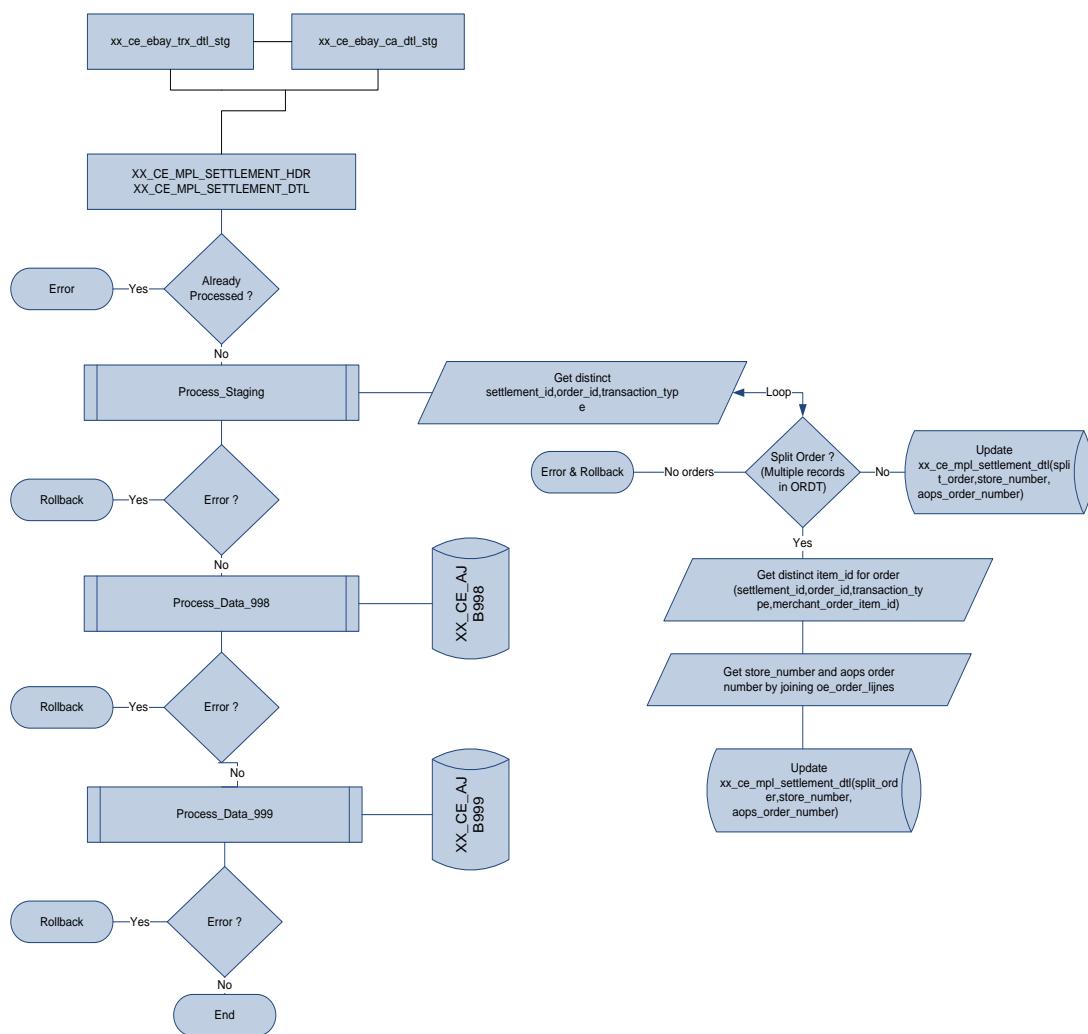
Each marketplace will have cut-off day for a week. An Unix shell script program will be scheduled to run on the cut-off date of the marketplace, which will get the details from this translation to download the file from the marketplace using web service and transfer the datafile to the target location.

CM Marketplace load program will read the file and will use data element mapping from the translation PRE\_STG\_RAKUTEN and PRE\_STG\_WALMART to insert the data into a pre-stage custom table. Any exception encountered during the process will be captured and will send an notification to the support team and archive the file for further analysis.

Framework Process Flow for capturing data for each marketplace to stage processor table



Framework for the Reconciliation Process flow



CE Market Places Process Settlement Program will validate data from the stage processor table and transfers the validated data to a main reconciliation settlement tables `xx_ce_mpl_settlement_hdr` and `xx_ce_mpl_settlement_dtl` table.

Program will get the order details, which includes any sales tax from the reconciliation data, and validate against the sale order to make sure that the order amount and reconciliation amounts are matching.

All the fee transactions are captured from the reconciliation data and will be used for payment to the marketplace as fee for hosting the sku's in their marketplace.

For each order, sales transaction will be transferred to auto reconciliation table to reconcile against the bank statements.

Bank statements for the payment details from marketplace will be processed in Cash Management and auto reconciliation will validate bank statement against the sales order transaction and bank statement will be set to reconciled.

Journal Entries will be created and interfaced to GL for the reconciled bank statements.

#### Exception Report

An exception report will display all the exception encountered during the process of marketplace reconciliation file and will be sent to business users.

CE Market Place Exception Report

Date : 7/10/2018 5:38:36 AM  
Page : 1 of 1

Report Parameters	
From Date	To Date

No	Report Date	Market Place	File Name	Order ID	PO NUM	Transaction Type	Transaction Date	Line No	Price Type	Fee Type	Amount	Error Type	Error Message
1	2018-07-10	MARKET PLACE	FILENAME	ORDER_ID	PO_NUM	TXN_TYPE	2018-07-10	LINE_NO	PRICE_TYPE	FEES_TYPE	AMOUNT	EXPTYPE	ERR_MSG_E

\*\*\* End of Report - CE Market Place Exception Report \*\*\*

\*\*\* No Data Found - CE Market Place Exception Report \*\*\*

## Benefits

- Ability to implement new marketplace with minimum configurations
- Reduced manual processing and streamlined business processes
- Enhanced accuracy and consistency of data
- Increase in sales revenue

## CONCLUSION

With this framework, integration of any retail organization with marketplace for cash reconciliation would be simple with minimum effort to setup the configurations. With this approach, time to implement new marketplace is drastically reduced as well as maintenance of the processes is minimal.

## REFERENCES

- [1] <https://marketplace.walmart.com/>
- [2] <https://sellbery.com/blog/ecommerce/how-to-sell-on-rakuten-step-by-step-guide-for-newbie-rakuten-sellers.html>