

3rd Party Market Place Integration ETR, DCE-IT

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3rd Party Market Place

1.1.1.1. DCE-IT

Integration



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HP Restricted Page 2 of 53

DCE-IT

1.1.1.1.

3rd Party Market Place

Integration



Table of Contents

1.	Overvie	9W	6
	1.1.	Introduction	6
	1.2.	Scope	6
	1.3.	Definitions and Abbreviations	6
	1.4.	Assumptions / Decisions Taken	6
2.	Chan	nel Advisor – HHO Integration	7
	2.1.	Business Flow chart	7
	2.2.	CA API Services	9
	2.3.	Data Transfers	10
	2.4.	ETR Integration	10
	2.4.1.	Order Created in CA (by Market Place)	12
	2.4.2.	Same CA Order Created in OMS	13
	2.4.3.	Inventory Adjustment after CA Order Successfully released	13
	2.4.4.	Adjusted inventory reflection in CA	14
	2.4.5.	Shipment flow	15
	2.4.6.	Shipment update in OMS	16
	2.4.7.	Shipment update in CA	17
	2.4.8.	Order cancellation	17
	2.4.9.	Cancelled Order in CA	19
	2.1.	Post-Sale	20
	2.1.1.	Order Refund in OMS	21
	2.1.2.	Order Refund in CA	21
	2.1.3.	Refund Transaction ID Services	22
	2.2.	Sterling Call Center Changes	23
	2.2.1.	CAAS Management	23
	2.2.2.	Order Details Summary	30
	<i>2.2.3</i> .	Return Order Details	30
	2.2.4.	Exchange Order Details	31
	2.3.	Inventory Load	31
	2.3.1.	Full Inventory	32
	2.3.2.	Delta Inventory	34
	2.4.	Inventory Services	34
	2.5.	Failure Email Services	35
	2.5.1.	Get CA order failure email	35
	2.5.2.	Create order failure email	35
	<i>2.5.3</i> .	Cancel order failure email	35
	<i>2.5.4</i> .	Export order failure email	35
	<i>2.5.5</i> .	Refund item failure email	35
	<i>2.5.6.</i>	Refund transaction ID failure	35

3rd Party Market Place

Integration

et Place

1.1.1.1. DCE-IT

	2.5.7.	Update order status failure	35
	2.5.8.	Shipment failure	35
	2.5.9.	Update Inventory failure	36
	2.6.	DB Changes	36
	2.6.1.	OMS Database Changes	36
	2.6.2.	WCS Database Changes	36
	2.7.	Files impacted	37
	2.7.1.	Java classes	37
	2.7.2.	XML/XSL/Property files	38
	2.7.3.	CDT changes	39
	2.7.4.	Services	39
	2.8.	Reference link	39
	2.8.1.	Product/Inventory management	39
	2.8.2.	Orders	40
	2.9.	Amazon Web services	40
	2.9.1.	Documentation	40
3.	Troub	oleshooting	40
	3.1.	CAAS Get New Orders Failure	40
	3.2.	CAAS Create Order Failure	40
	3.3.	CAAS Ship Order Failure	41
	3.4.	CAAS Update Inventory Failure	41
	3.5.	CAAS Refund Transaction ID Failure	42
	3.6.	CAAS Misc Credit Refund Transaction ID Failure	43
	3.7.	CAAS Cancelled Refund Transaction ID Failure	43
	3.8.	CAAS Log Tables	44
	3.8.1.	EXTN_CAAS_TRANSACTION_LOG	44
	<i>3.8.2</i> .	EXTN_CAAS_TRANS_DETAIL_LOG	44
	<i>3.8.3</i> .	EXTN_CA_SERVICE_LOGS	45
4.	Amaz	on Marketplace Integration	46
	4.1.	Scope	46
	4.2.	Assumptions / Decisions Taken	46
	4.3.	ETR Integration	46
	4.3.1.	Order Created in CA (by Market Place with promo)	46
	4.3.2.	Same CA Order Created in OMS	47
	<i>4.3.3</i> .	Order Created in CA (by Market Place without promo)	48
	4.3.4.	Same CA Order Created in OMS (with promo)	49
	4.4.	Post-Sale	50
	4.4.1.	Refund Transaction ID Services	51
	4.5.	Inventory Threshold Mass Update	52
	4.6.	Files impacted	53

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

HP Restricted

3rd Party Market Place

1.1.1.1. DCE-IT

Integration



1. Overview

1.1. Introduction

3rd Party Marketplace product is projected for a business model where HP will sell its products on marketplaces, such as eBay, Amazon, and fulfill the orders using its own fulfillment solution, developed for HP's ETR store. In this project, HP's ETR store infrastructure will be integrated with a "middleman" (Channel Advisor) which will take care of the communication between HP and the marketplaces. Changes being introduced as part of the FY17 Release5.5 project from ETR end are

- Order to delivery
- Payment to reconciliation
- Reverse logistics (Refund, Miscellaneous credit)
- CAAS Order Search
- Inventory Management
- CAAS Logs Search

1.2. Scope

- Fetch payment cleared, un-shipped and un- exported orders based on profile ID from CA.
- Filter the CA orders NOT processed before in ETR and do the basic OMS validations and WCS validations.
- If all these validations are cleared, and inventory is available in ETR, order is created. OMS.
- Successfully processed orders are exported in CA.
- If for any reason, order validations fail in ETR, the same order is cancelled in CA and exported. Such orders will NOT be created in OMS.
- Only PayPal payment is accepted for CA orders.
- Create order, cancel order, refund, shipment, fraud decline customer email notifications have been bypassed for CA orders.
- Return and Misc. are supported at item level refund for eBay.
- Inventory full update to CA once a day
- Delta inventory update to CA in given interval.
- Agent can mask the inventory in Web client and the same is updated in CA.
- New CAAS order search in Sterling Call Center.
- New CAAS logs search in Sterling Call Center.

1.3. Definitions and Abbreviations

Acronym	Remarks
CA, CAAS	Channel Advisor
MP	Market place

1.4. Assumptions / Decisions Taken

- As RMS is happening before ETR order creation, RMS holds CA order number as Order number, corresponding ETR order number will not be stored in RMS.
- There will be NO remorse/holds/charge failure holds for CA sales orders created in OMS.
- Validation failed CA orders will NOT be created in OMS.
- CA orders will NOT be backordered. Instead they will be cancelled in OMS and cancelled & exported in CA.

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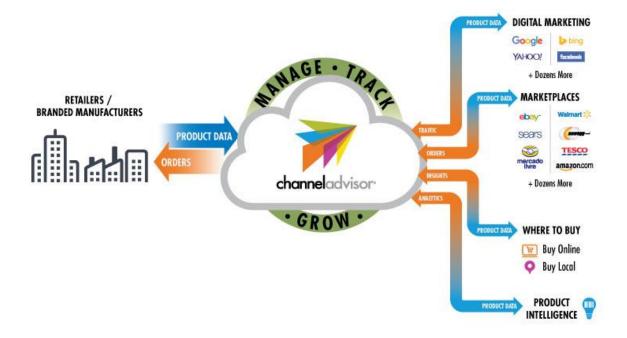
- Payment capture is bypassed for CA sales & return orders.
- There will be NO fraud holds for CA orders in ETR.
- ETR will update RMA# as part of CA refund transaction. RMA# is stored in CA sellerAdjustmentId field.
- ETR will validate CA Order price after discount only, individual promotions are not validated.
- ETR will validate based against the CA catalog Feed Data. ETR will not validate real time with promotion engine.
- Marketplace cancelled orders are not automatically cancelled in ETR. Marketplace cancelled orders will have to cancelled manually in ETR.
- · CA will receive below reason codes for
 - o Cancel CA order due to validation Failure cancel GeneralAdjustment
 - o Cancel CA Order due to inventory Failure cancel ItemNotAvailable
 - Refund for Return for credit order
- CustomerReturnedItem

o Refund for Misc. Credit

GeneralAdjustment

2. Channel Advisor – HHO Integration

2.1. Business Flow chart

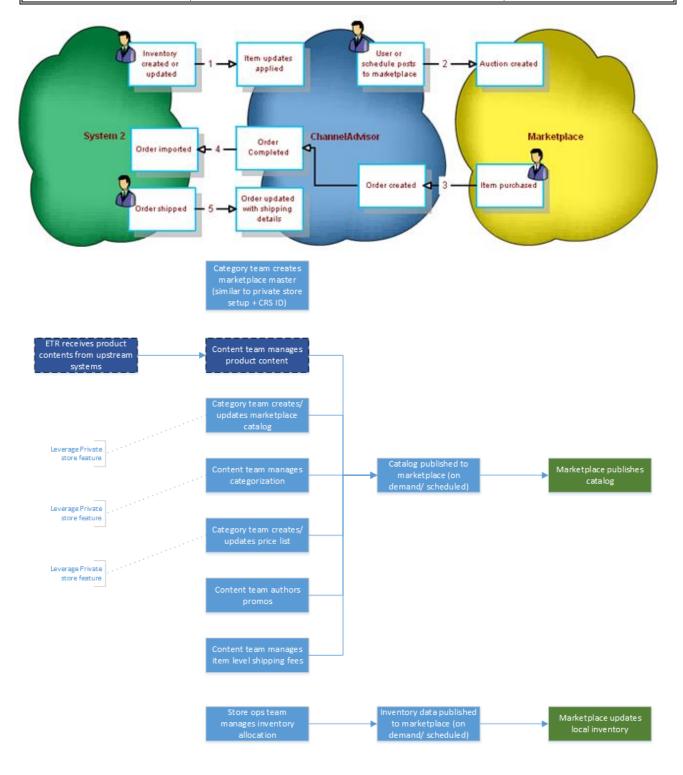


3rd Party Market Place

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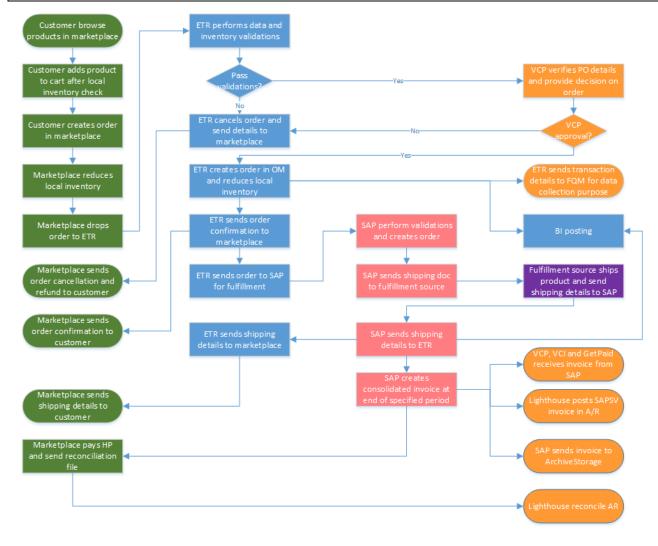


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2.2. CA API Services

They offer the following API services

- **Inventory** The Inventory Service provides methods to manipulate products inventory in a Channel-Advisor account.
 - o Inventory refers to the product and stock info
 - They can be pushed through API to Channel Advisor
- Order The Order Service contains public web methods for retrieving non-exported orders and marking orders as exported. An order represents an entire purchase commitment from a buyer to a Channel-Advisor seller.
- **Shipping** The Shipping Service is used to update shipping information into a Channel Advisor account. If there are other items in the order, CA will know items not included in the call will be outstanding the order will be considered "Partially Shipped" until all items have been satisfied with shipping calls.
- Cancellations & Refunds —For pre-shipment orders: Channel Advisor considers any adjustment which returns money a cancellation. For post-shipment orders: Channel Advisor considers any adjustment which returns money a refund.

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2.3. Data Transfers

- FTP upload to channel advisor
- Using Channel Advisor API
- Manual upload or creation in channel advisor console

Following are the recommended data flow strategy

Data	Frequency	Preferred Method	Implemented Methods
Full Product Data	Once a Week	FTP	FTP
Delta Product Data	One in a day	FTP	FTP
Delta Price Changes	Hourly	API	API
Delta Stock Change	10 Mins	API	API
Orders	15 Mins	API	API
Shipment & Refunds	N/A (event based)	API	API

2.4. ETR Integration

The Order and Fulfillment retrieval and update process usually flows something like this with our REST API:

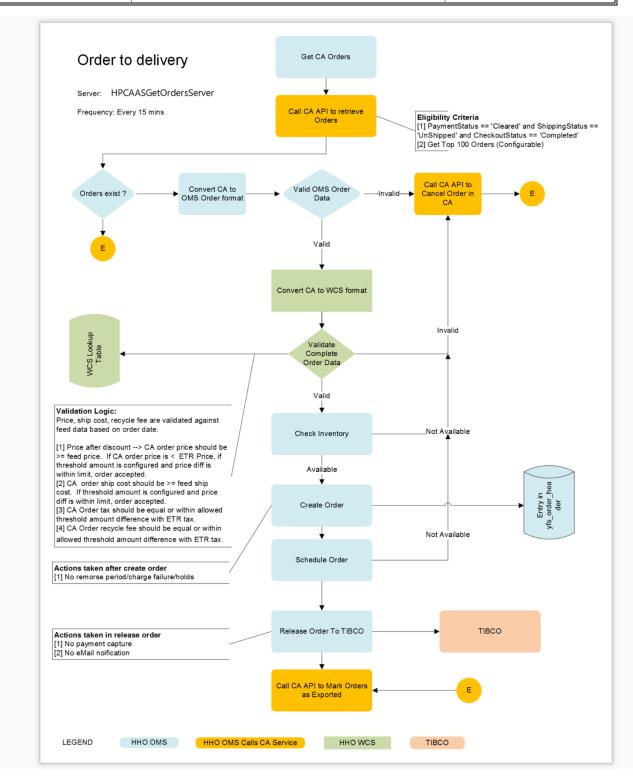
- 1. Order is placed on a marketplace
- 2. Order is retrieved from the marketplace by Channel-Advisor
 - a. Channel-Advisor will acknowledge and confirm receipt of the order as necessary within the time frame required by the marketplaces
 - b. Orders are retrieved from marketplaces every 15 minutes
- 3. Client will retrieve a group of orders that haven't already been imported into their system
- 4. Once those orders have been imported into their system successfully, client should mark them as Exported in our system (each order must be marked as exported individually)
- 5. Orders may be completed in three ways:
 - SHIP the Order
 - CANCEL the Order
 - · REFUND the Order

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Request URL

1.1.1.1.

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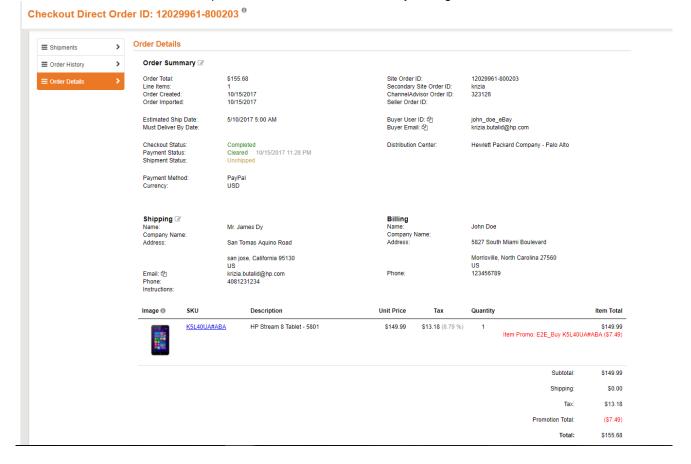
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Group	Transaction/Service Name (Server Name)	Туре	Description
CAAS	HPCAASGetOrdersServer	New Task-based time triggered transaction	To get orders which are payment cleared, checkout status completed and unshipped from CA

2.4.1. Order Created in CA (by Market Place)

Below is the screenshot of a sample CA order which we created by calling CA rest API.



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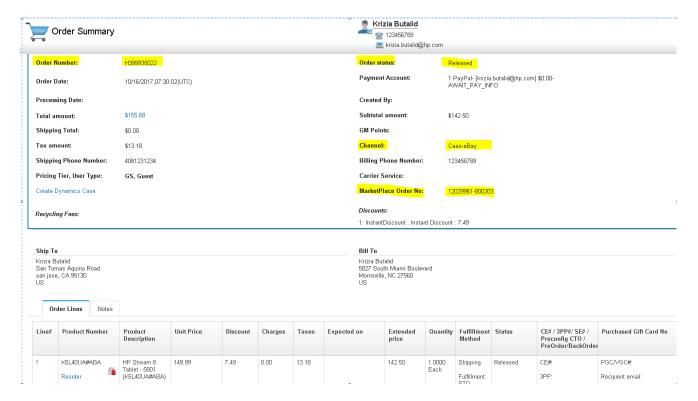
Integration



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2.4.2. Same CA Order Created in OMS

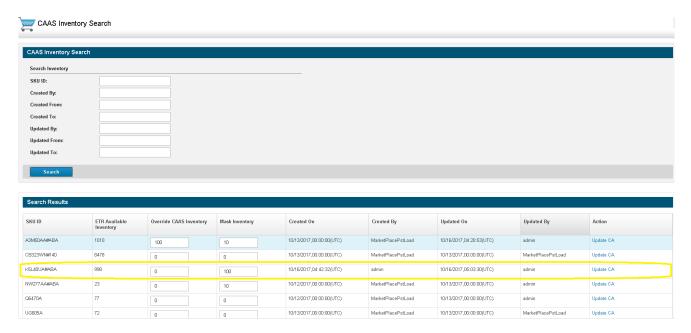
The same CA order shown above is pulled in ETR and once all the validations & inventory checks are cleared, an order is created, scheduled and released in OMS successfully. A screenshot of a successfully released order is shown below from call center.



2.4.3. Inventory Adjustment after CA Order Successfully released

The item's ETR available inventory is deducted internally by the system.

Before CA order is created



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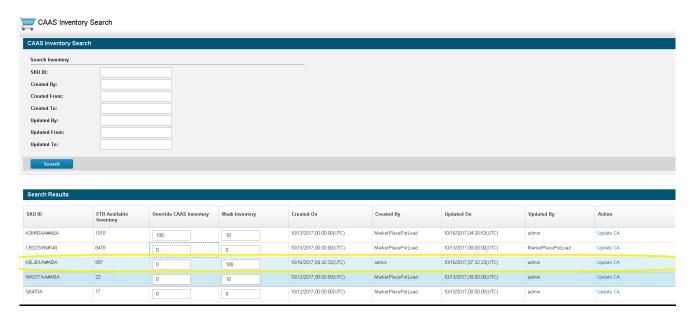
Integration



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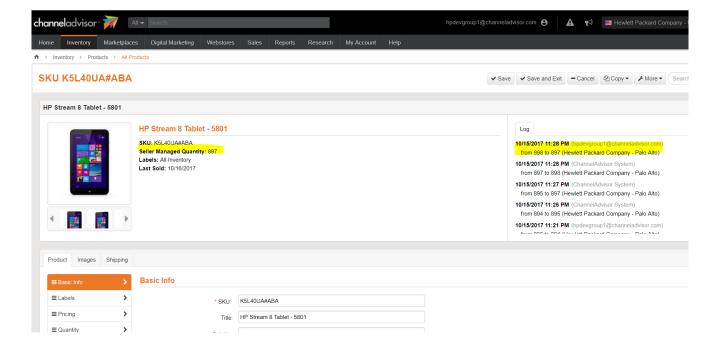
After CA Order is released

1.1.1.1.



2.4.4. Adjusted inventory reflection in CA

When RTAM(OP1) runs, the value after deducting Mask Inventory from item's ETR Available Inventory is submitted to CA to update the inventory in CA. CA handles the deduction of any open and pending transactions from the submitted quantity value and sets the remaining as the inventory quantity.



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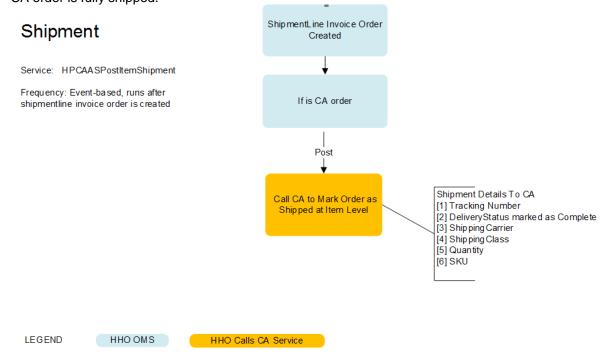
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2.4.5. Shipment flow

HPCAASPostItemShipment is triggered once CA order is changed to Shipment line invoiced status. It posts the shipment details of the CA order to CA. One shipment or tracking number per line item. CA can determine whether the request is for partial or full shipment. CA allows to update the shipment details of CA order items if CA order is fully shipped.



Shipment Post Request for Every Product

```
Request URL
POST https://api.channeladvisor.com/v1/Orders(123456)/Ship?access_token=xxxxxxxxxxx
```

```
Request Body

{
   "Value":{
        "TrackingNumber": "1Z 999 AA1 01 2345 6784",
        "DistributionCenterID": 0,
        "DeliveryStatus": "Complete",
        "ShippingCarrier": "UPS",
        "ShippingClass": "Ground",
        "Items":[
        {
            "Sku":"L2749A#BGJ",
            "Quantity":2
        }]
     }
}
```

HP Restricted Page 15 of 53

3rd Party Market Place

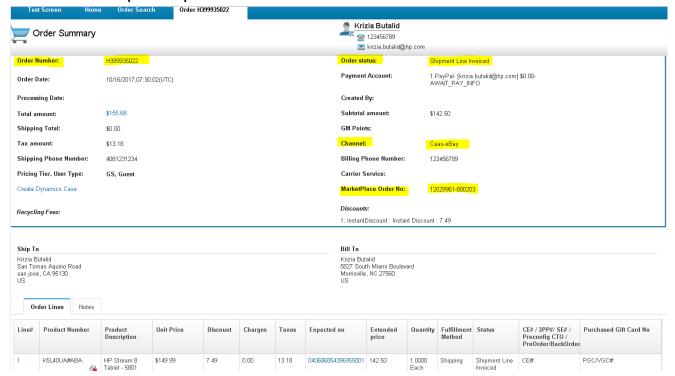
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Transaction/Service Name Group		Туре	Description
	(Server Name)		
CAAS	HPCAASPostItemShipment	New Event – based service	To post shipment details of CA Order at item level

2.4.6. Shipment update in OMS



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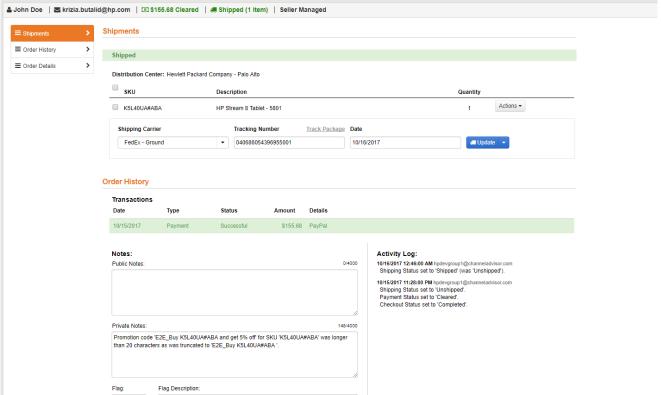


1.1.1.1. DCE-IT

2.4.7. Shipment update in CA

Checkout Direct Order ID: 12029961-800203 [®]

▲ John Doe | ▼ krizia.butalid@hp.com | ③ \$155.68 Cleared |



2.4.8. Order cancellation

CA order after creating in OMS can be cancelled from OMS Application console/ SAP. In that case, CA order will be cancelled in CA as well. Whenever an order fails OMS/WCS validation or inventory check fails, we cancel the order in CA and don't create order in OMS.

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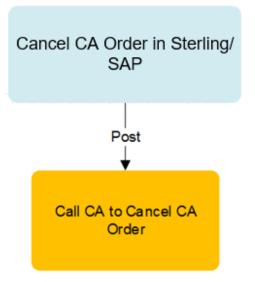


1.1.1.1. DCE-IT

Order Cancellation

Service: HPCAASPostCanceledOrders

Frequency: Invoked During Change Order On Cancel Event



LEGEND

HHO OMS

HHO Calls CA Service

Group	Transaction/Service Name (Server Name)	Туре	Description
	HPCAASPostCanceledOrders	New Event-based Service	To post canceled CA orders
CAAS		(ChangeOrder.ON_CANCEL)	in OMS to CA

HP Restricted Page 18 of 53

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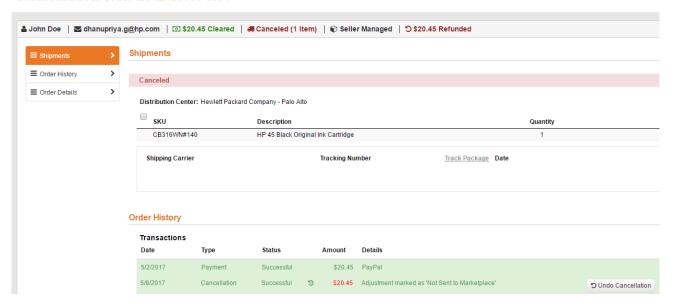
Integration



1.1.1.1. DCE-IT

2.4.9. Cancelled Order in CA

Checkout Direct Order ID: 12029961-5001 9



1.1.1.1.

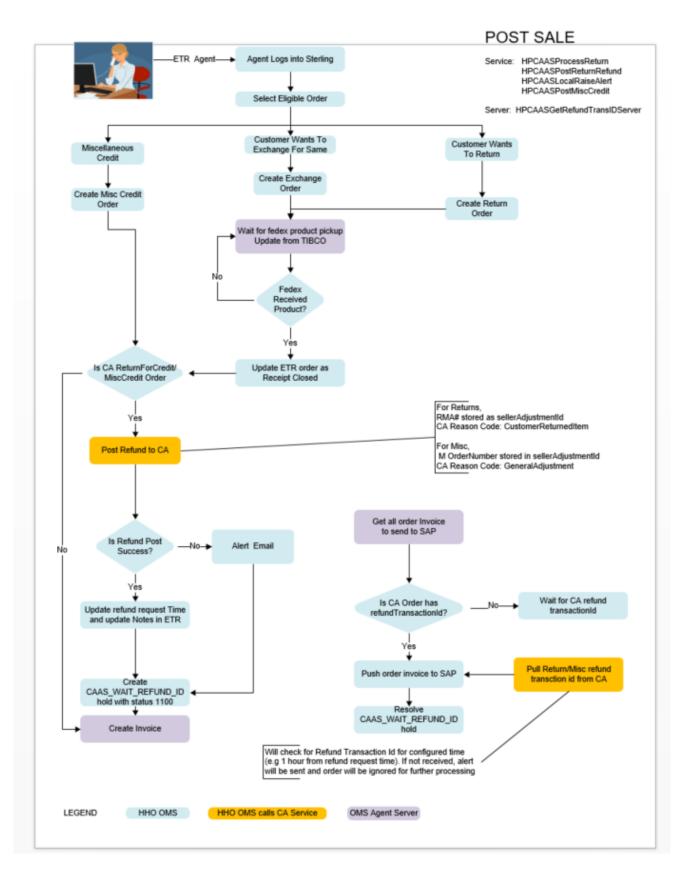
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2.1. Post-Sale

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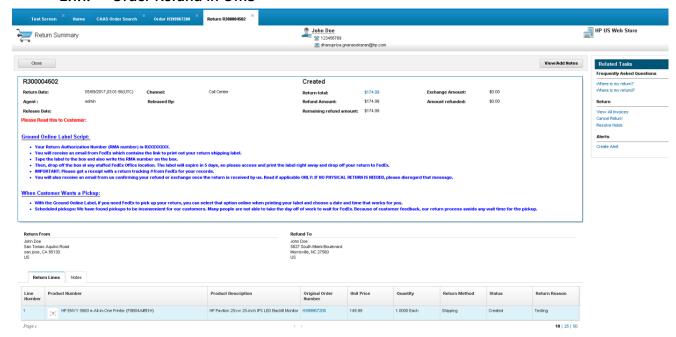
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1.1.1.1. DCE-IT

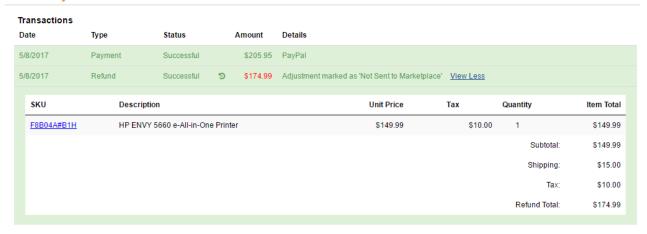
2.1.1. Order Refund in OMS



2.1.2. Order Refund in CA

CA can only process the "RETURN" refund and "MISC Credit" refund once on a line item. In case there's a need to apply another refund on the same line item, you may have to address those directly within eBay or PayPal.

Order History

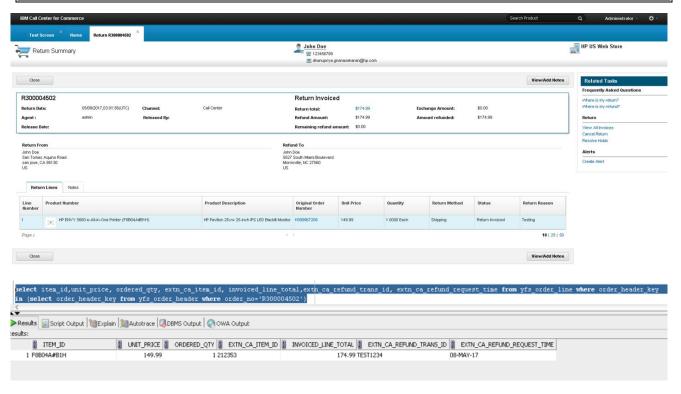


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1.1.1.1. DCE-IT



2.1.3. Refund Transaction ID Services

Group	Transaction/Service Name (Server Name)	Туре	Description	
CAAS	HPCAASGetRefundTransIDServer	New Task-based time triggered transaction (Runs every hour)	To get refund transaction ID for Return Invoiced and Cancelled CA orders in OMS	
Request URL				
GET https://api.channeladvisor.com/v1/OrderItems?access_token=xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxfilter=Adjustments/Any (c:c/SellerAdjustmentId eq ' <returnorderno>')&\$expand=Adjustments</returnorderno>				

Group	Transaction/Service Name (Server Name)	Туре	Description	
CAAS	HPCAASGetMCreditRefundTransIDServer	New Task-based time triggered transaction (Runs every hour)	To get refund transaction ID for Misc Invoiced CA orders in OMS	
Request URL				
	GET https://api.channeladvisor.com/v1/OrderItems?access_token=xxxxxxxxxxx&\$filter=Adjustments/Any (c:c/SellerAdjustmentId eq ' <morderno>')&\$expand=Adjustments</morderno>			

0	Transaction/Service Name	T	Description
Group	(Server Name)	Туре	Description

1.1.1.1.

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CAAS

HPCAASResolveWaitRefundIDHoldServer triggered transaction (Runs every hour)

New Task-based time triggered transaction (Runs every hour)

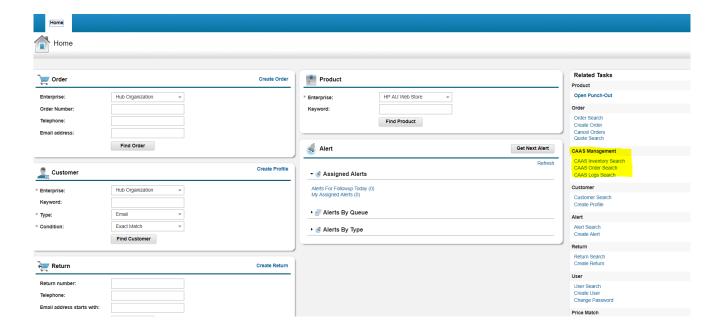
- To resolve CAAS_WAIT_REFUND_ID hold of an order once all of its line items receive the refund transaction id from CA and push the order invoice details to TIBCO by PublishCAASInvoiceTIBCO service.

2.2. Sterling Call Center Changes

2.2.1. CAAS Management

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CAAS Management section is added to Related Tasks Pane to manage CA related changes in call center. It includes CAAS Inventory Search, CAAS Order Search and CAAS Logs Search.



HP Restricted Page 23 of 53

3rd Party Market Place

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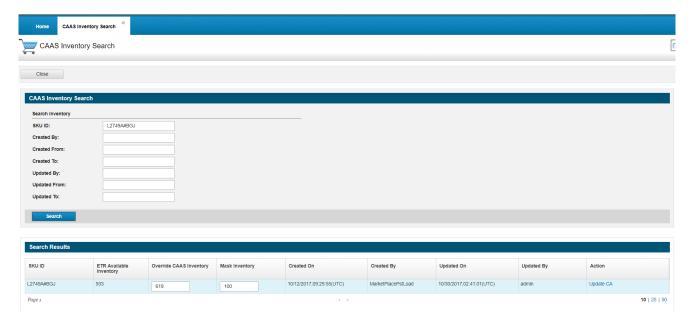


1.1.1.1. DCE-IT

2.2.1.1. CAAS Inventory Management

2.2.1.1.1. Inventory Search

User can search for active, existing CA products in ETR by the following fields: SKU, Created By, Updated By, Created From, Created To, Updated From and Updated To. When the parameters are empty in the search filter, the table will display the list of active CA products sorted in ascending order based on SKU ID.



In OMS Inventory console, user can search for the item/SKU ID to verify ETR available inventory.

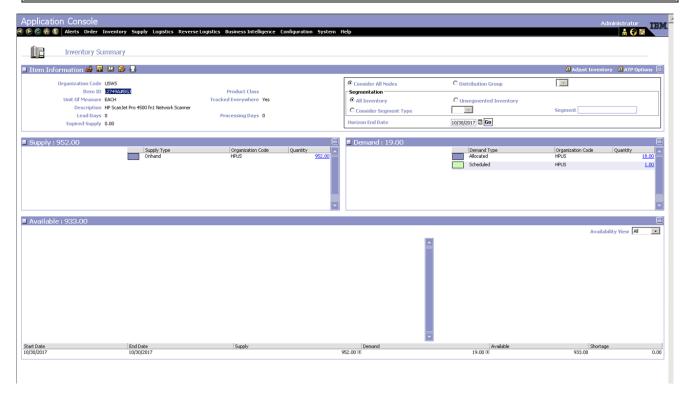


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2.2.1.1.2. Manual Override of CA Inventory

User can override product's inventory in CA by clicking the Update CA link from the Action column of the list grid. If Override CAAS Inventory count is greater than or equal to Mask Inventory (CA Total Inventory = Override CAAS Inventory count – Mask Inventory) else (CA Total Inventory = 0). A pop up message will be displayed when CA inventory update is successful or an error has occurred.

2.2.1.1.3. Local Inventory Update

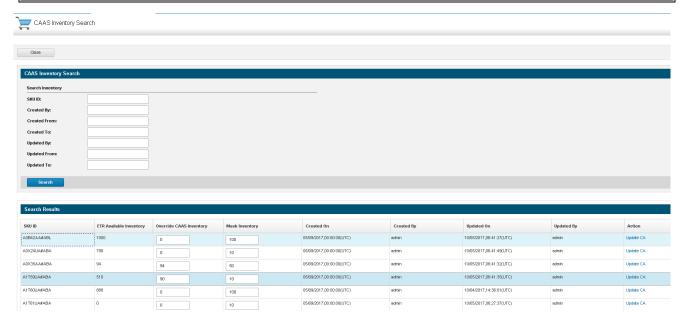
Mask Inventory and Override CAAS Inventory fields are editable. User can change the grid cell value and click the screen to save the new value in the database. Only positive numbers are allowed for Mask Inventory and Override CAAS Inventory fields, otherwise an error message will be displayed. ETR Available Inventory or the main inventory in OMS is a read only field and is changed by existing RTAM (OP1 and OP3) process.

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2.2.1.1.4. Inventory Database Table

Table	Column	Data Type	Description
	SKUID	VARCHAR2	Holds the product's SKU
	INV_KEY	KEY	Sequential key
	MASK_INV	NUMBER	Inventory Threshold
	CA_OVERRIDE_INV_CNT	NUMBER	Inventory Count to Override in CA
	CA_PRODUCTID	VARCHAR2	CA product's ID
	ACTIVE_FLAG	VARCHAR2	Y for buyable, N for non-buyable
EVEN CA MACK INIV	CREATETS	TIMESTAMP	Holds the date when data is created
EXTN_CA_MASK_INV	MODIFYTS	TIMESTAMP	Holds the date when data is modified
	MODIFYTS_AGENT	VARCHAR2	Holds the date when data is modified by agent user
	CREATEDBY	VARCHAR2	Holds username who created the data
	UPDATEDBY	VARCHAR2	Holds username who modified the data
	IS_CA_UPDATED	VARCHAR2	"Y" if inventory is updated successfully else "N"
	CA_UPDATED_TIME	TIMESTAMP	Holds the date when the data is updated by HPCAASPostFullInventoryServer

2.2.1.2. CAAS Order Search

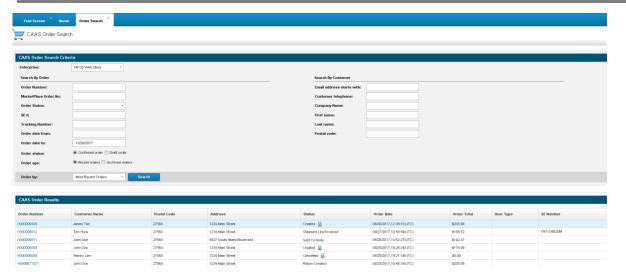
CAAS Order Search will only display CA orders based on the given filter parameters. User can search for CA orders based on the status (Released, Sent to Node, Shipment Line Invoiced, Return Created and Cancelled)

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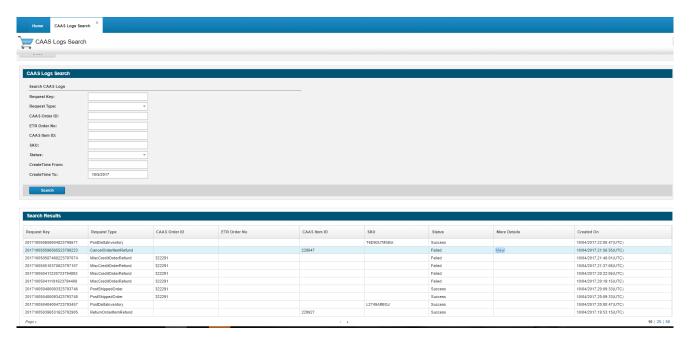






2.2.1.3. CAAS Log Search

When user hits search with empty parameters, the table will display the list of log details sorted in descending order based on created time. (Refer to section 2.2.1.3.1.2)



2.2.1.3.1. CAAS Log Database Table

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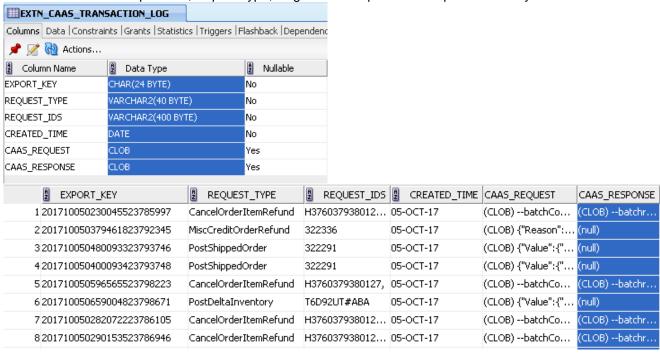
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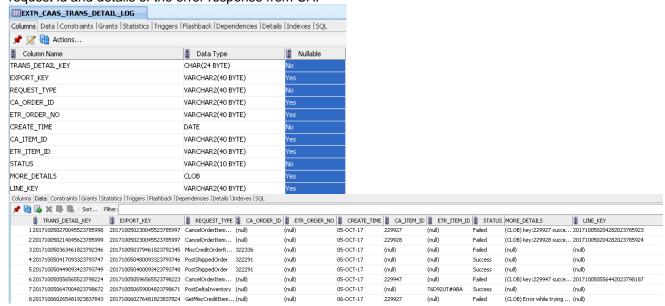
2.2.1.3.1.1. EXTN_CAAS_TRANSACTION_LOG

This table holds the request ids, request type, single/batch request and response of every service calls to CA.



2.2.1.3.1.2. EXTN_CAAS_TRANS_DETAIL_LOG

This table holds the details of every single requests to CA. It shows the request type, response status, specific request id and details of the error response from CA.

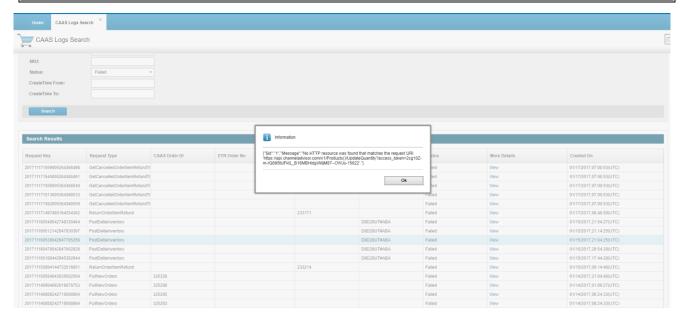


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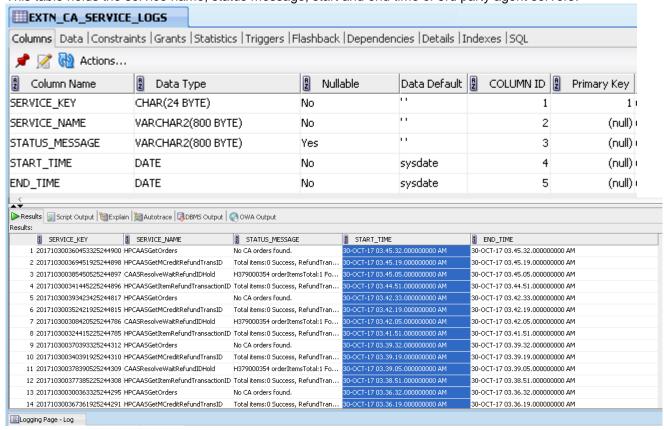


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2.2.1.3.1.3. EXTN CA SERVICE LOGS

This table holds the service name, status message, start and end time of 3rd party agent servers.



3rd Party Market Place

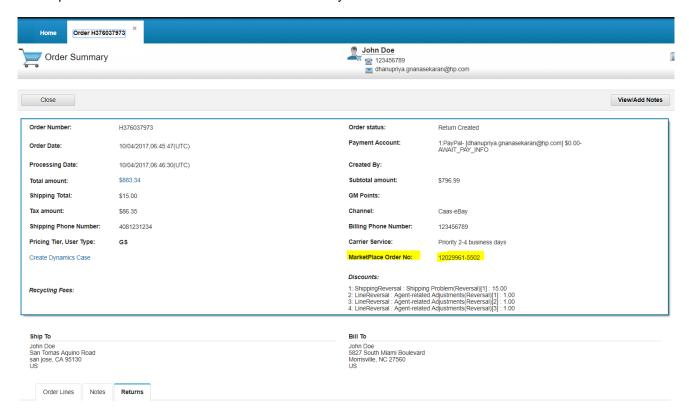
Integration



1.1.1.1. DCE-IT

2.2.2. Order Details Summary

Marketplace Order No field is added to Order Summary screen.



2.2.3. Return Order Details

Marketplace Order No field is added to Return Order Summary screen.

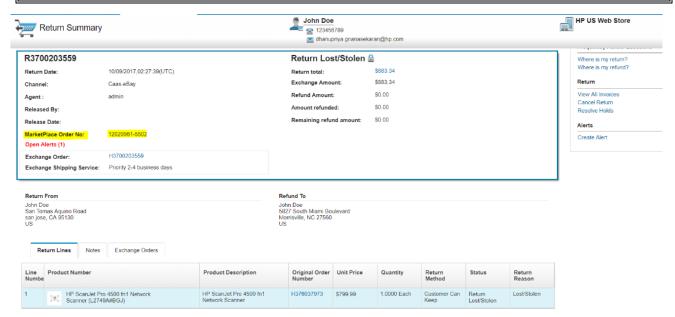
DCE-IT

1.1.1.1.

3rd Party Market Place

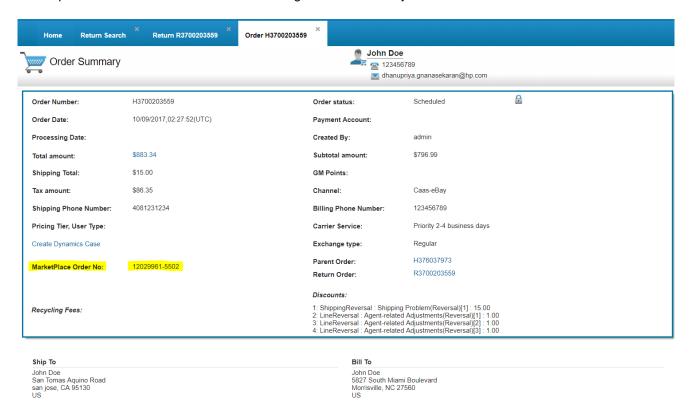
Integration





2.2.4. Exchange Order Details

Marketplace Order No field is added to Exchange Order Summary screen.



2.3. Inventory Load

How stock data is being send to Channel advisor

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

2.3.1. Full Inventory

HPCAASPostFullInventoryServer runs once a day. It pulls active CA products from ETR, computes the Masked Available Inventory for each product and sends the inventory to CA by batch.

Masked Available Inventory = ETR Available Inventory - Mask Inventory (Threshold)

ETR Available Inventory – the remaining quantity of the product and is handled by existing RTAM (OP1 and OP3) process

Mask Inventory – the threshold value set in EXTN_CA_MASK_INV table by Catalog Team or from Sterling Call Center CAAS Inventory Search section

CA deducts any open listings, pending checkouts, pending payments and pending shipments from the submitted quantity value and sets the remaining as the inventory quantity.

To reprocess failed CA products, set below properties in customer_overrides.properties file and rerun the service to post the inventory for the CA products that failed from the previous runs set in the given date range.

Name	Value	Description
yfs.caas.fullinventory.rerun.flag	Υ	Allows reprocess of CA products that failed
		from inventory load
yfs.caas.fullinventory.rerun.isUpdated	N	Checks column IS_CA_UPDATED from
		EXTN_CA_MASK_INV table which has
		value of 'N'. If inventory update is
		successful, this column is set to 'Y', else 'N'.
yfs.caas.fullinventory.rerun.dateFrom	(eg. 2017-08-12)	DateRange Format: yyyy-MM-dd. Checks
yfs.caas.fullinventory.rerun.dateTo	(eg. 2017-08-13)	column CA_UPDATED_TIME from
		EXTN_CA_MASK_INV table.
		CA_UPDATED_TIME is later than or equal
		to dateFrom and earlier than dateTo.

HP Restricted Page 32 of 53

3rd Party Market Place

Integration

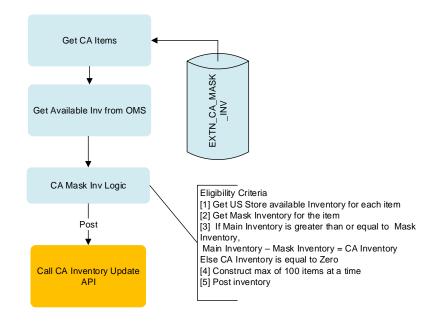


1.1.1.1. DCE-IT

Full Inventory Load

Server: HPCAASPostFullInventoryServer

Frequency: Once in a day



LEGEND

HHO OMS HHO Calls CA Service

Update Quantity by Batch Using the "Unshipped" Update Type

Request URL

Request Body

--batch

Content-Type: multipart/mixed; boundary=changeset

--changeset

Content-Type: application/http

Content-Transfer-Encoding: binary

Content-ID: 1

POST https://api.channeladvisor.com/v1/Products(466385)/UpdateQuantity?access_token= xxxxxxxxxx HTTP/1.1

Content-Type: application/json

{"Value": {"UpdateType":"UnShipped","Updates": [{"DistributionCenterID":"0","Quantity":"978"}]}}

--changeset

Content-Type: application/http

Content-Transfer-Encoding: binary

Content-ID: 2

POST https://api.channeladvisor.com/v1/Products(449374)/UpdateQuantity?access_token= xxxxxxxxxx HTTP/1.1

Content-Type: application/json

{"Value": {"UpdateType":"UnShipped","Updates": [{"DistributionCenterID":"0","Quantity":"938"}]}}

--changeset--

--batch--

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

2.3.2. Delta Inventory

HPCAASPostDeltaInventory is an event based service that runs every 15 mins when RTAM(Op1) runs. If product is active and existing CA in ETR, service computes its Masked Available Inventory and posts inventory to CA.

Delta Inventory Load RTAM Inventory Update Triggered Service: HPCAASPostDeltaInventory If is CA published Item Frequency: Every 10 mins when RTAM(Op1) CA Mask Inv Logic Eligibility Criteria [1] Get US Store available Inventory for this item [2] Get Mask Inventory for the item Post [3] If Main Inventory is greater than or equal to Mask Inventory, Main Inventory - Mask Inventory = CA Inventory Else CA Inventory is equal to Zero. Call CA Inventory Update [4] Post inventory

Update Quantity - (Single DC Update)

LEGEND

HHO OMS HHO Calls CA Service

```
Request URL
POST https://api.channeladvisor.com/v1/Products(466385)/UpdateQuantity?access_token=xxxxxxxxxxx
```

```
Request Body

{
    "Value": {
        "UpdateType": "UnShipped",
        "Updates": [{
            "DistributionCenterID": "0",
            "Quantity": "90"
        }]
        }
}
```

2.4. Inventory Services

Group	Transaction/Service Name (Agent Server)	Туре	Description
CAAS	HPCAASPostDeltaInventory	New Event-based Service (RTAM.	To post total inventory count (Available Inventory
0, 0, 0		REALTIME_AVAILABILITY_CHANGE)	-Mask Inventory) for every

DCE-IT

1.1.1.1.

3rd Party Market Place

Integration



		inventory change in OMS for active CA Item
HPCAASPostFullInventoryServer	New Task-based time triggered transaction	To post total inventory count for existing active CA Items in OMS to CA
HPCAASOverrideInventory	New Service	To override CA Total inventory count manually
HPCAASInventorySearch	New Service	To pull inventory details of active CA items and display on Sterling CC
HPCAASLocalUpdateInventory	New Service	To update "Mask Inventory" and "Override CAAS Inventory" fields in OMS

2.5. Failure Email Services

HPCAASRaiseEmail is an email service which sends email to a set of recipients when a failure occurs for CA order. The list of failure scenarios for which emails are triggered are listed below.

2.5.1. Get CA order failure email

This email is triggered when there is failure while pulling the CA orders to ETR.

2.5.2. Create order failure email

This email is triggered when there is ETR validation failure/OMS order processing failure/pulled CA order already exists.

2.5.3. Cancel order failure email

This email is triggered when there is failure while cancelling an order in CA.

2.5.4. Export order failure email

This email is triggered when there is failure while exporting an order in CA.

2.5.5. Refund item failure email

This email is triggered when there is failure while processing the refund in CA.

2.5.6. Refund transaction ID failure

This email is triggered when there is failure while retrieving the refund transaction ID from CA. Also, email is sent when return order or misc invoice or cancelled order did not receive refund transaction ID within configured time limit (24hrs).

2.5.7. Update order status failure

This email is triggered when there is failure while updating order status in CA.

2.5.8. Shipment failure

This email is triggered when there is failure updating shipment status of an order in CA.

3rd Party Market Place

Integration

1.1.1.1. DCE-IT

2.5.9. Update Inventory failure

This email is triggered when there is failure while updating product inventory in CA.

2.6. DB Changes

2.6.1. OMS Database Changes

Table Name: YFS_ORDER_HEADER

Column name	Column Type	Default value	Description
EXTN_CA_ORDER_NO	VARCHAR2		Holds CA order Number
EXTN_MARKETPLACE_ORDER_NO	VARCHAR2		Holds marketplace order
			number

Table Name: YFS_ORDER_LINE

Column name	Column Type	Default value	Description
EXTN_CA_ITEM_ID	VARCHAR2		Holds CA Order item id
EXTN_CA_REFUND_TRANS_ID	NULL	NULL	Field holds CA Refund Trans Id
EXTN_CA_REFUND_REQUEST_TIME	Timestamp		Field holds CA Refund Request Time

Table Name: YFS_ORDER_INVOICE_DETAIL

Column name	Column Type	Default value	Description
EXTN_CA_REFUND_TRANS_ID	NULL	NULL	Field holds CA Refund Trans Id
EXTN_CA_REFUND_REQUEST_TIME	Timestamp		Field holds CA Refund Request Time

Table Name: YFS_ITEM

Column name	Column	Default	Description
	Туре	value	
EXTN_PLANT_CODE	VARCHAR2		WCS Item plant code.

2.6.2. WCS Database Changes

Configuration data:

Name	Value	Usage
CAAS_ITM_PRICE_ACCEPTANCE_THRESHOLD	0	To set price difference tolerance amount (used only when CAAS amount is less than ETR amount)
CAAS_ITM_SHIPCOST_ACCEPTANCE_THRESHOLD	0	To set ship cost difference tolerance amount (used only when CAAS amount is less than ETR amount)
CAAS_TOTAL_TAX_ACCEPTANCE_THRESHOLD	0	To set tax cost difference tolerance amount (used only when CAAS amount is not equal to ETR amount)

HP Restricted Page 36 of 53

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

CAAS_ITEM_RC_ACCEPTANCE_THRESHOLD		To set recycle fee difference tolerance amount (used only when CAAS amount is not equal to ETR amount)
CAAS_SHIP_METHOD_GROUND	GROUND	CAAS ship class code for 3-5 ship method
CAAS_SHIP_METHOD_2DAY	2DAY	CAAS ship class code for 2days ship method
CAAS_SHIP_METHOD_NEXTDAY	OVERNIGHT	CAAS ship class code for next day ship method
ETR_SHIP_GROUND_NSIGN	GR	ETR ship code for 3-5 ship method
ETR_SHIP_2DAY_NSIGN	ES	ETR ship code for 2days ship method
ETR_SHIP_NEXTDAY_NSIGN	YO	ETR ship code for next day ship method
CAAS_VALIDATE_REQ_LOG_ENABLE	True	To enable request/response logging in table
CAAS_ORD_REQ_LOG_ENABLE	True	To enable order level validation details logging in table
TAX_TRANS_LOG_ENABLED	True	WSTax request/response logging for CAAS orders
PGS_TRANS_LOG_ENABLED	True	PGS RMS request/response logging for CAAS orders

Table Name: CAAS_REQUEST_LOG

COLUMN NAME	TYPE	Details
REQUEST_ID	NUMBER(38, 0)	Request Id
REQUEST_TYPE	VARCHAR2(200)	Type can be ValidateCAOrder, Tax, PGS-RMS
REQUEST	CLOB	Request json or xml
RESPONSE	CLOB	Response json or xml
CREATED_TIME	TIMESTAMP	Created time

Table Name: CAAS_ORDER_REQUEST_LOG

COLUMN NAME	TYPE	Details
REQUEST_ID	NUMBER(38, 0)	Request Id
CA_ORDER	VARCHAR2(30)	CA order Number
ETR_ORDER	VARCHAR2(30)	ETR Order Number
VALID	VARCHAR2 (10)	Flag to hold the status
MORE_DETAILS	CLOB	More details about validation
CREATED_TIME	TIMESTAMP	Time stamp

2.7. Files impacted

2.7.1. Java classes

File Name	New File	Remarks
ProcessCAOrders.java	New	Master file orchestrating the flow between CA, OMS & WCS.
CAOMSUtil.java	New	Util supporting CA-OMS operations
CAWCSUtil.java	New	Util supporting CA-WCS operations
WCSWebServiceUtil.java	Existing	Util supporting WCS validation service invocations
HPBeforeCreateOrderUEImpl.java	Existing	Remove remorse/holds for CA orders
IsCaasOrder.java	New	Supporting class file for condition to check if it's a CA order
IsShipNodeChanged.java	Existing	To ByPass payment capture call for CA orders even though ship node is changed.
HPConstant.java	Existing	CA supporting constant values mapping

HP Restricted Page 37 of 53

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

CAEmailUtil.java	New	Util supporting sending emails to a set of recipients on failure cases.
HPPublishDetailsOnSendInvoice.java	Existing	Payment capture is bypassed for CA orders. But these details are needed for TIBCO. We copy the payment details for CA paypal orders here with the data captured from CA before publishing to TIBCO.
HPUpdateWebProfileIDinReturns.java	Existing	Updating the CA relation information (like CA order no.,CA item ID, marketplace no. etc) for return orders.
HPCollectionOthersUEImpl.java	Existing	To ByPass payment capture call for CA orders .

2.7.2. XML/XSL/Property files

File Name	New File	Remarks
ORDER_CREATE.ON_SUCCESS.xml	Existing	To check if it's a CA order, CA order no. should be passed as part of success xml. So, that HPCheckWCSAuthorizedAmount is bypassed for CA orders (and no charge failure hold is put on CA orders). Marketplace order no. also added to be sent to SAP. To bypass order confirmation email also this is used.
YFS_ORDER_HEADER_EXTN.xml	Existing	To include CA order no. in yfs_order_header table
YFS_ORDER_LINE_EXTN.xml	Existing	To include CA item ID in yfs_order_line table
SCHEDULE.ON_BACKORDER.xml	New	To check if it's a CA order, CA order no. should be passed as part of back order xml. So, that backordered CA orders can be cancelled. [Supporting changes for CreateHoldOnBackOrder]
SCHEDULE.ON_SUCCESS.xml	Existing	CA order no. & Marketplace order no. also added to be sent to SAP.
CancelCAOrderOnBackOrder.xsl	New	Input for cancelling back orders order
RELEASE.ON_SUCCESS.xml	New	To check if it's a CA order, CA order no. should be passed as part of success xml. So, that payment capture call is not done. Supporting changes for IsShipNodeChanged & OrderPaymentCapture. Marketplace order no. also added to be sent to SAP.
Customer_overrides.properties	Existing	CA property map
Yfs_item_extn.xml	Existing	Added plant code as part of the yfs_item table so that catalog team can populate and we can use the same for create order input contruction
ORDER_CHANGE.ON_CANCEL.xml	Existing	To check if it's a CA order, CA order no. should be passed as part of success xml.
ORDER_CHANGE.ON_HOLD_TYPE_STATUS_CHANGE.xml	Existing	To check if it's a CA order, CA order no. should be passed as part of success xml.
DRAFT_ORDER_CONFIRM.ON_SUCCESS.xml	Existing	Added DerivedFromOrderLineKey for updating return order with CA details.

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

2.7.3. CDT changes

File Name	New File	Remarks
HPCheckWCSAuthorizedAmount	Existing	CDT service level change to avoid charge failure hold for CA orders.
IsCaasOrder	New	Introduced new condition IsCAOrder in application console (CDT)
CreateHoldOnBackOrder	Existing	CDT service level change to cancel backordered orders
OrderPaymentCapture	Existing	CDT service level change to by pass payment capture for CA orders
CreateOrderConfirmationToWLIQueue	Existing	Suppress order confirmation notification to customers (CDT) for CA orders
PublishCancelOrderConfirmationTIBCO	Existing	Suppress order cancellation notification to customers (CDT) for CA orders
PublishShipConfirmationTIBCO	Existing	Suppress consolidated shipment notification to customers (CDT) for CA orders
PublishSalesOrderDetailsToFDQueueTIBCO	Existing	Suppress fraud decline notification to customers (CDT) for CA orders
HPConsolidatedCancelOrder	Existing	Added ExtnCAOrderNo & ExtnMarketplaceOrderNo to suppress cancel order email to customers for CA orders.
HPConsolidatedCancelOrderToExportTable	Existing	Added ExtnCAOrderNo & ExtnMarketplaceOrderNo to suppress cancel order email to customers for CA orders.

2.7.4. Services

File Name	New File	Remarks
HPCAASGetOrders	Existing	CDT service level change to avoid charge failure hold for CA orders.
IsCaasOrder	New	Introduced new condition IsCAOrder in application console (CDT)
CreateHoldOnBackOrder	Existing	CDT service level change to cancel backordered orders
OrderPaymentCapture	Existing	CDT service level change to by pass payment capture for CA orders
CreateOrderConfirmationToWLIQueue	Existing	Suppress order confirmation notification to customers (CDT) for CA orders
PublishCancelOrderConfirmationTIBCO	Existing	Suppress order cancellation notification to customers (CDT) for CA orders
PublishShipConfirmationTIBCO	Existing	Suppress consolidated shipment notification to customers (CDT) for CA orders
PublishRefundNotificationMsgTIBCO	Existing	Suppress order refund notification to customers (CDT) for CA orders
HPCAASRaiseEmail	New	Introduced new email service to send emails to a set of recipients when an order creation fails in ETR for varied reasons.
PublishSalesOrderDetailsToFDQueueTIBCO	Existing	Suppress fraud decline notification to customers (CDT) for CA orders

2.8. Reference link

2.8.1. Product/Inventory management

http://ssc.channeladvisor.com/howto/getting-started-inventory-0

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

2.8.2. Orders

https://developer.channeladvisor.com/working-with-orders

2.9. Amazon Web services

2.9.1. Documentation

https://developer.amazonservices.com/gp/mws/index.html/162-8701958-0332041

3. Troubleshooting

3.1. CAAS Get New Orders Failure

Subject: CAAS Get New Orders Failure

Sample email:

Dear CAASTeam,

CAAS get new orders failed at 10:23 AM, CST

Reason for failure (CAAS Response): <?xml version="1.0" encoding="UTF-8"?>

<Errors> <Error ErrorCode="Error while getting accessToken. POST</p>

<u>URL:https://api.channeladvisor.com/oauth2/token?refresh_token=mX5DzwSRhfsI34Te</u>

RWq6w6fLnZo7nFQbZZi-sZ8GbzE&grant_type=refresh_token"

ErrorDescription="Exception: java.lang.RuntimeException:

javax.net.ssl.SSLHandshakeException: Received fatal alert: handshake failure, in

com.hp.sterling.caas.HPInvokeCARestService.setAccessToken"

ErrorUniqueExceptionId="192.168.74.1421508725436843000000000001">

<a href="mailto: <a href="Attribute Name="ErrorUniqueExceptionId"

Value="192.168.74.142150872543684300000000001"/> </Error> </Errors>

Please fix this before next run.

Sincerely,

HPStore Team.

Solution: Check the certificate

3.2. CAAS Create Order Failure

Subject: CAAS Create Order Failure

Sample email:

Dear CAASTeam,

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

CASS new order creation failed in OMS.

Please find the details of failed orders below:

CA order No: 323580 ETR order no:

Reason: ItemNotAvailable

Sincerely, HPStore Team.

Solution: Check the item inventory in ETR.

3.3. CAAS Ship Order Failure

Subject: CAAS Ship Order Failure

Sample email:

Dear CAASTeam,

CAAS order shipment failed.

Please find the details of failed shipment below:

CA Order ID: 322336

Tracking Number: 040686054606528 CA Shipping Class: Standard Overnight

CA Shipping Carrier: FedEx

Reason: { "error":{ "code": "38292284", "message": "There are no fulfillments eligible for

update with the specified items." } }:

Or

Reason: { "error":{ "code":" 34816914", "message":" The unshipped quantity remaining on the order is insufficient to complete the request." } }:

Sincerely, HPStore Team.

Solution: If CA order is partially shipped, we cannot change the shipment details of the items.

3.4. CAAS Update Inventory Failure

Subject: CAAS Update Inventory Failure

Sample email:

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

Dear CAASTeam,

CAAS inventory update failed.

Please find the details of failed SKUs below:

SKU: ND1990 CA Product ID:

Total Actual Inventory: 822

Reason: 404:Not Found Content-Type: application/json; charset=utf-8 {"Message":"No

HTTP resource was found that matches the request URI

'https://api.channeladvisor.com/v1/Products()/UpdateQuantity?access_token=nKolrwK

LyDieGOpm6YbdjlCpEAQjF8XRcCGP4rjzaMc-15022'."}

Sincerely, HPStore Team.

Solution: Product is not available in CA. Create the product in CA or set this product as inactive. Run below queries in database.

UPDATE EXTN_CA_MASK_INV SET ACTIVE_FLAG = 'N' WHERE SKUID = '<PRODUCT'S SKU>';
COMMIT;

Dear CAASTeam,

CAAS inventory update failed.

Please find the details of failed SKUs below:

SKU: Z4Z37UA#ABA CA Product ID: 560493 Total Actual Inventory: 0

Reason: 429:Unknown Status Code

Sincerely, HPStore Team.

Solution: This is CA issue. Raise a case to CA support team.

3.5. CAAS Refund Transaction ID Failure

Dear CAASTeam,

CAAS refund transaction ID request failed. Please find the details of failed refunds below:

HP Restricted

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

ETR Order No.: R3700203649

Reason: R3700203649 did not receive Refund transaction ID from CA within configured time limit (24hrs). Please check the order.

Sincerely, HPStore Team.

Solution: Work with Ebay and SAP team to manually process this order.

3.6. CAAS Misc Credit Refund Transaction ID Failure

Dear CAASTeam,

CAAS refund transaction ID request failed. Please find the details of failed refunds below:

ETR Order No.: M300208017

CA Item No.: 233171

Reason: M300208017 did not receive Refund transaction ID from CA within configured

time limit (24hrs). Please check Invoice No: M300208017.

Sincerely, HPStore Team.

Solution: Work with Ebay and SAP team to manually process this order.

3.7. CAAS Cancelled Refund Transaction ID Failure

Dear CAASTeam,

CAAS refund transaction ID request failed. Please find the details of failed refunds below:

ETR Order No.: H379000354

Reason: H379000354 did not receive Refund transaction ID from CA within configured time limit (24hrs). Please check the order.

Sincerely, HPStore Team.

Solution: Work with Ebay and SAP team to manually process this order.

3rd Party Market Place

Integration

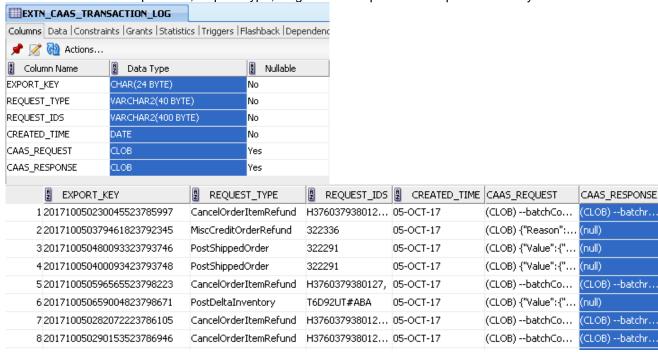


1.1.1.1. DCE-IT

3.8. CAAS Log Tables

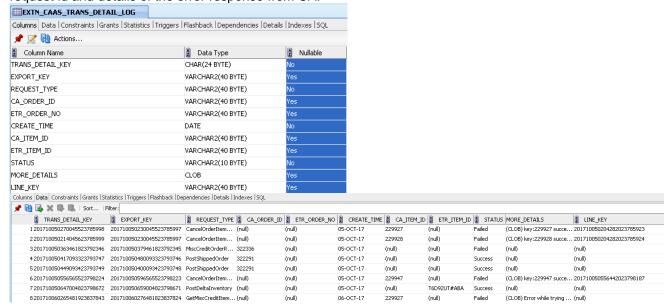
3.8.1. EXTN CAAS TRANSACTION LOG

This table holds the request ids, request type, single/batch request and response of every service calls to CA.



3.8.2. EXTN_CAAS_TRANS_DETAIL_LOG

This table holds the details of every single requests to CA. It shows the request type, response status, specific request id and details of the error response from CA.

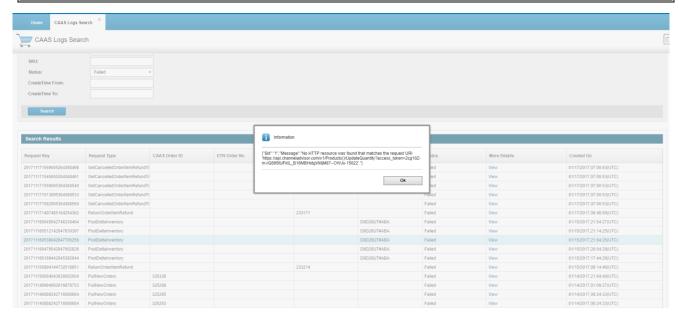


3rd Party Market Place

Integration

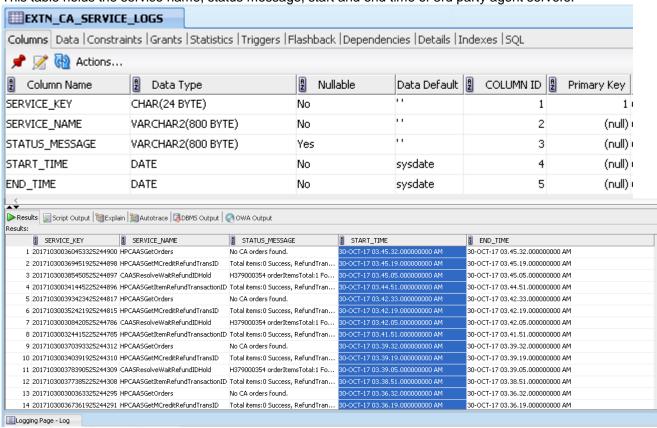


1.1.1.1. DCE-IT



3.8.3. EXTN_CA_SERVICE_LOGS

This table holds the service name, status message, start and end time of 3rd party agent servers.



3rd Party Market Place

Integration



1.1.1.1. DCE-IT

4. Amazon Marketplace Integration

4.1. Scope

- Amazon orders to be created with payment type as credit card and card type as 'Amazon'.
- There is no hold for amazon returns/misc. credit orders, invoice has to be send to SAP immediately same as ETR orders.
- Amazon orders should follow same as eBay catalog/order process except the variations stated above.
- CR: Marketplace orders should display promo details from catalog if not available in CA orders
- CR: ETR should support mask inventory update for marketplace products.

4.2. Assumptions / Decisions Taken

- There will be new marketplace entry created in MC with 'Amazon' as marketplace name.
- Amazon orders will have Entry Type as 'Caas-Amazon'.
- Payment type will be Credit Card and card type is 'Amazon'.
- Amazon order will have RMS only call without credit card details to PGS.
- PGS will have strategy in place to accept Amazon orders always.
- RMS Fraud is not allowed for Amazon orders same as eBay orders.
- If CA order does not carry promo details, catalog promo is displayed in OMS as instant promo discount.
- As amazon orders does not have card details such as last four digit, exp-date etc., OMS
 amazon orders will not have card details in payment table. TIBCO/SAP has to handle the
 orders without payment details.
- Amazon return/misc. orders will not have refund transaction id.
- Amazon orders will have same shipping methods as eBay ('GROUND', '2 Day', 'Standard Overnight').
- Amazon orders will have site name containing 'Amazon' in it. Current design identifies the Amazon/eBay order based on site name.

4.3. ETR Integration

Only specific changes to Amazon and CRs are documented here. All other process will follow same as eBay order process flow.

ETR identifies Amazon/eBay orders based on order's site name.

4.3.1. Order Created in CA (by Market Place with promo)

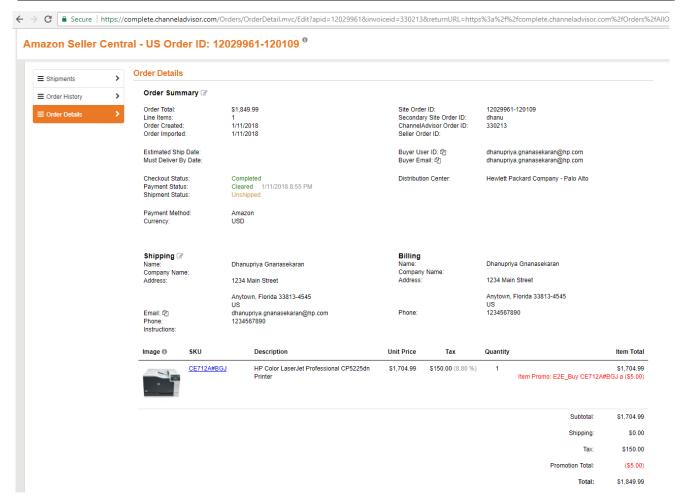
Below is the screenshot of a sample CA order with promo details which we created by calling CA rest API.

3rd Party Market Place

Integration



1.1.1.1. DCE-IT



4.3.2. Same CA Order Created in OMS (with promo)

The same CA order shown above is pulled in ETR and once all the validations & inventory checks are cleared, an order is created, scheduled and released in OMS successfully. Here the promos are taken from the CA order. A screenshot of a successfully released order is shown below from call center.

DCE-IT

1.1.1.1.

3rd Party Market Place

Integration



IBM Call Center for Commerce

Search Product

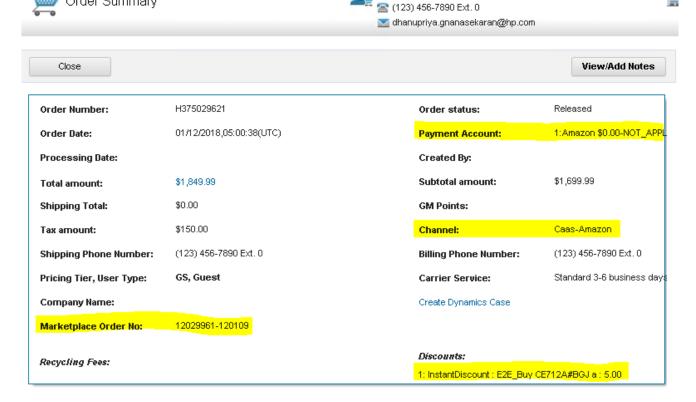
Q Administrator

Test Screen Home Order Search

Order H375029621

Dhanupriya Gnanasekaran

Dhanupriya Gnanasekaran



4.3.3. Order Created in CA (by Market Place without promo)

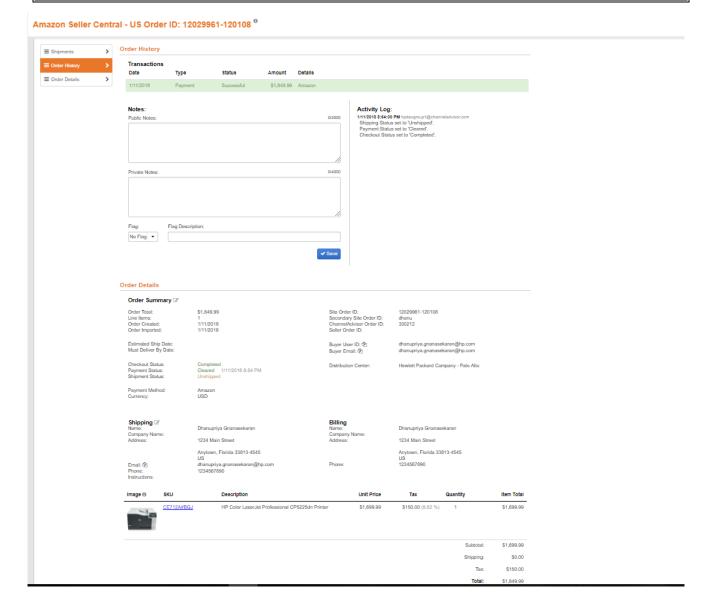
Below is the screenshot of a sample CA order which we created by calling CA rest API without any promo.

3rd Party Market Place

Integration



1.1.1.1. DCE-IT



4.3.4. Same CA Order Created in OMS (with promo)

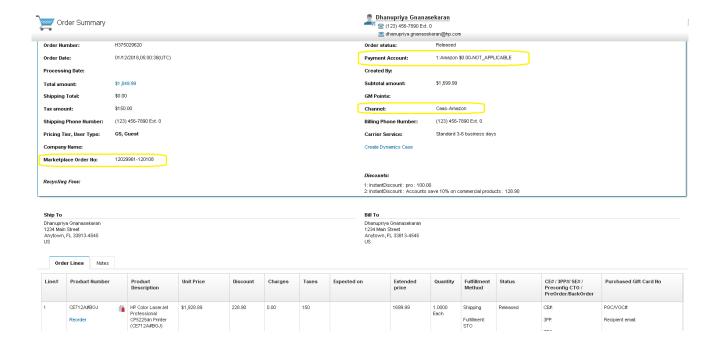
The same CA order shown above is pulled in ETR and once all the validations & inventory checks are cleared, an order is created, scheduled and released in OMS successfully with promos applicable for Skus fetched from WCS. A screenshot of a successfully released order is shown below from call center.

3rd Party Market Place

Integration



1.1.1.1. DCE-IT



4.4. Post-Sale

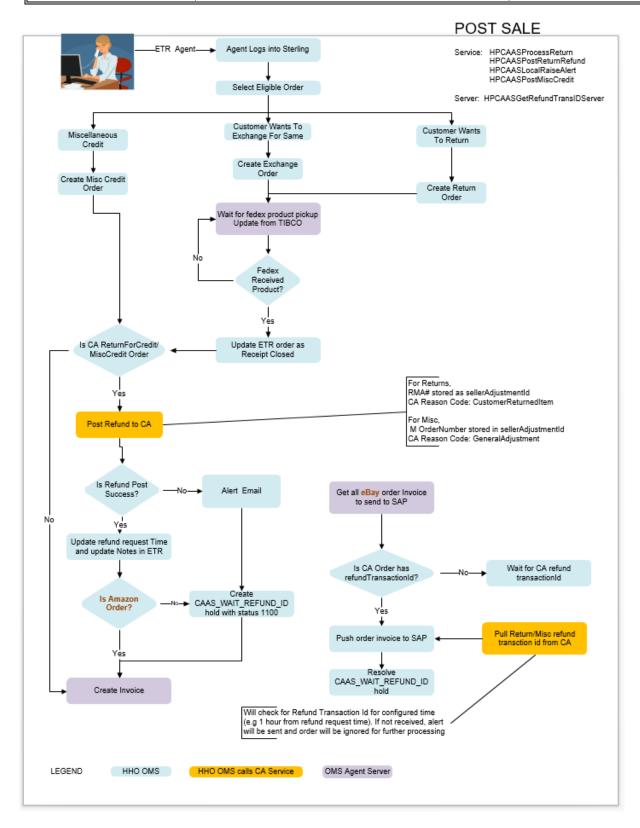
There will be no hold for Amazon Post-Sale and Misc. orders. Order invoice will post to SAP immediately same as ETR orders.

3rd Party Market Place

Integration



1.1.1.1. DCE-IT



4.4.1. Refund Transaction ID Services

Not supported for Amazon orders.

3rd Party Market Place

Integration



1.1.1.1. DCE-IT

4.5. Inventory Threshold Mass Update

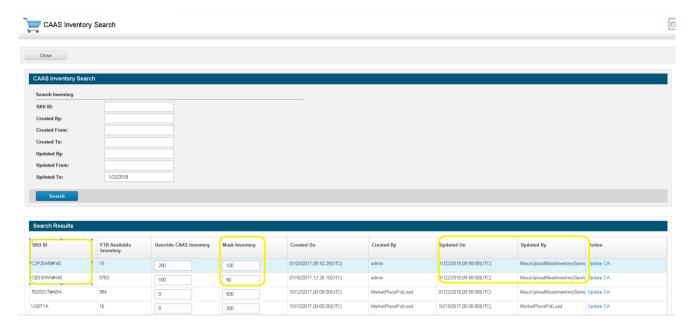
New scheduled agent HPCAASMassUpdateMaskInventoryServer runs every 10 minutes (configurable) and reads the csv input file inside /opt/apps/CAASMassUploadInv/in folder located in Agent server box. It updates the mask inventory of the input SKUs in Sterling database.

Sample csv input. Support team can check both server logs and EXTN_CA_SERVICE_LOGS table to see whether the service is successful or not.



InventoryThre

Agent can check the active input SKUs using CAAS Inventory Search and see the updated mask inventory.



3rd Party Market Place

Integration



1.1.1.1. DCE-IT

4.6. Files impacted

4.6.1. Java classes

File Name	New File	Remarks
HPCAASPostCCKReturnRefund.java HPCAASPostMCreditRefund.java HPCAASPostReturnRefund.java HPCAASPostSOrderRefund.java HPConstant.java IsCAASReturnMiscInvoiceValid.java	No	No Hold for amazon orders

HP Restricted