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Financial Services

Product Release Notes

Oracle Banking Cash Management

Release 14.5.0.0.0

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Oracle Banking Cash Management
Product Release Note
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1. Release Notes

1.1 Background / Environment

Oracle Financial Services Software Limited has developed Oracle Banking Cash Management (OBCM) solution that enables a financial institution to manage the account receivables and account payables of their corporate customers. OBCM provides a technology platform capable of capturing account receivables and account payables of corporates across disparate accounts and locations. This in turn enables better management of working capital for the corporate.

1.2 Purpose

The purpose of this document is to highlight the functionalities included in the Oracle Banking Cash Management 14.5.0.0.0 release and patchsets released for 14.5 version.

1.3 Abbreviations

Abbreviation	Detailed Description
OBCM	Oracle Banking Cash Management
OBPM	Oracle Banking Payments
OBVAM	Oracle Baking Virtual Account Management
OBDX	Oracle Baking Digital Experience
OBRH	Oracle Banking Routing Hub
DSL	Domain Specific Language
FIFO	First In First Out
LIFO	Last In First Out
VAM	Virtual Account Management
PDC	Post-dated cheque
CDC	Current-dated cheque
PO	Purchase Order

1.4 Product Summary

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Oracle Banking Cash Management Release 14.5.0.0.0 is built to meet various challenges faced by financial institutions. It addresses each of the cash management processes from design through execution. Its unique value lies in its ability to provide the business with predefined processes and a world-class framework that takes care of business risk and compliance needs.

1.5 <u>Release Highlights</u>

The key highlight of this release is to release new functionalities and enhancements made with the OBCM 14.5.0.0.0 version, required for cash management industry with the cutting edge technology.

1.5.1 <u>OBCM 14.5.0.0.0 Highlights</u>

New Functionalities

- Multi-Entities Deployment

- Business Process Management

- Post Dated Cheque Handling

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2. Features

2.1 Multi-Entities Deployment

2.1.1 Overview

As a part of this release, support for multi-entity is enabled for this product. This feature will enable a single instance of the product to onboard multiple entities of the bank onto the platform.

2.1.2 Description

Following features are made available to support multi entity functionality:

- Creation of 'Multi-Entity Admin' user(s).

- Entity Definition and Maintenance.

- Creation of 'Entity Admin' User(s) and regular users.

- Mapping of users (entity admins or regular users) to one or more entities - The users of the application will be central in nature and users can have access to one or more entities.

- User Entitlement is local to the entity.

- Data Segregation at Entity Level - On the database end, there will be segregation of data between the different entities. The different entities data are housed in different schemas on the database. Depending on the database deployment architecture employed, these schemas for the different entities could be in the same or different PDBs of the database.

- Deployment of Flyway scripts (database scripts) for an application across all entities during deployment of patches and upgrades.

- Deployments with single entity are also deployed in the same architecture with a 'default entity'.

- Upgrade of existing (pre 14.5) deployments to a single entity deployment with the 'default entity'.

2.2 Business Process Management

2.2.1 Overview

By using the 'Business Process Maintenance' screen, business processes can be created or existing processes can be modified. Additionally, below tasks can be achieved from this screen:

- Add a new stage or modify an existing stage of an existing process.

- Upload/download 'json-based dsl'.

- Customizing the workflow definition.

- Preview the flow-diagram of a modified or new added process.

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2.2.2 Description

- Screen with the list of processes for performing above tasks is provided.

- Drag-drop functionality for selecting process stages is provided.

- Automatic versioning of the newly created process.

2.3 Post Dated Cheque Handling

2.3.1 Overview

OBCM has been enhanced to support Post-dated cheque (PDC) maintenance. The customers availing PDC management for warehousing and banking of their post-dated cheques. The customer may have different Presentation Cycles dates of the month. Bank user can perform data entry of PDCs in the PDC system. On presentation date, the cheques are removed from the respective vault and verified with the presentation file given by the customer. The PDC's can also be removed from the VAULT on request from the customer for Fore Closure, Cancellation and Replacement.

2.3.2 Description

- Instrument Collection screen has been enhanced for data entry of PDCs. Four additional field in the instrument detail menu (Vault Box Number, Vault Description, Vault Branch, and Presentation Date) are added.

- PDC vault maintenance has been developed to safe keep the Instruments in a secured vault box (iron chest/locker).

- Actions on the PDCs cannot be performed till its presentation date.

- Actions for PDC:

  o **Mark Extension**: To extend the presentation date of an instrument till the time there is sufficient funds in the buyer's account.

  o **Mark Hold**: When the customer wants the PDC's not to be presented in clearing and be held in custody of the bank until further notice. Hence, the PDC instrument need to be marked as 'Hold' in the system. The system allows to specify the date until which the instrument should be on hold. In case of no such specified date, bank user needs to be manually 'Unhold' the instrument.

  o **Mark Unhold**: The PDC instrument which are marked as hold can be marked as Unhold manually by a bank user on request from a Corporate.

  o **Mark Misplaced**: If the PDC is misplaced by bank or pick vendor, in such cases, PDC is required to be marked as misplaced, if the instrument is not recovered till its presentation date, it gets auto-cancelled.

  o **Mark Recovered**: When the 'Misplaced' PDCs are found by the bank before the instrument's presentation date, the same is required to be marked as 'Recovered' in the system.

  o **Mark Replacement & Withdrawal**:

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    – **Replacement**: Sometime in order to avoid the deteriorating physical condition of the cheques, the buyer provides fresh instruments. In such cases, PDC is required to be replaced.

    – **Withdrawal**: Assume a buyer has provided the customer with Post Dated Cheques for periodic payment of loan that the buyer has taken. After some month of PDC collection, buyer pre-pays the entire loan amount. Hence, the PDCs are required to be moved from the system, so that there is no more usage for them. This calls for PDC withdrawal.

2.4 Instrument Management

2.4.1 Overview

Instrument Management allows you to manage Current Dated Cheques (CDC) and Post Dated Cheques (PDC) received for collection, basis the action to be performed on the instruments. You can search for the lodged cheques through various search criteria. You can also take an action on multiple records at once. It also supports removing post-dated cheques (PDC) from the vault on request from the customer.

2.4.2 Description

- Screens for listing the instrument received for collection is provided.

- Process workflow for instrument management is included.

- Below new actions have been added to manage CDC life cycle:

  o Credit advancement/postponement

  o Generate schedule

  o Mark return receipt

- Below new actions have been added to manage PDC life cycle:

  o Mark Extension

  o Mark Hold

  o Mark Unhold

  o Mark Misplaced

  o Mark Recovered

  o Mark Replacement & Withdrawal

2.5 PDC Vault Management

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2.5.1 Overview

PDC Vault Maintenance enable banks to safely keep the postdated instruments in a secured vault box till the instrument is due for presentation, clearing, or withdrawal. This functionality allows user to create/maintain vault boxes that can be used for storing the PDC instruments.

2.5.2 Description

- Screens for creating, modifying, deleting, and authorizing PDC vault boxes is provided.

- Maker and checker for PDC vault boxes is provided.

- Search and view screen for PDC vault boxes is provided.

2.6 Purchase Order Management

2.6.1 Overview

Purchase Order management allows banks to create/manage purchase order details along with associated shipment, commodity, and auto-calculated pricing details.

2.6.2 Description

- Screen for creating purchase orders has been enhanced with the introduction of commodity code maintenance.

- Screen for managing (search/view/process) purchase orders events is provided.

- Maker and checker for creating/managing purchase orders is provided.

- PO screen validates the commodity codes that are maintained by corporate or bank user.

- PO status can be marked as 'Stale' based on EOD or BOD as per configuration.

- Below table depicts the POs that will be displayed against various actions:

Action	Condition
Accept	PO Status is Raised
Edit	• PO is not Financed • PO Status is not Cancelled
Cancel	PO is not Financed

2.7 NLP Toolkit support for Purchase Order

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Increased process efficiency through NLP tool kit that facilitates banks and corporates to capture purchase order data from scanned copies of purchase orders and save them without manually keying in the requisite data.

2.8 Payment Management

2.8.1 Overview

Payment Management screen enable banks to stop the payment from being reconciled automatically or manually. Bank user can mark the payment record for 'Not to be Reconciled' or 'Not to be Auto-Reconciled'.

2.8.2 Description

- Screen to search payment records and initiate action on the same

- Maker and checker for payment management is provided.

- Payments listed under 'Not to be Reconciled' includes those marked as 'Not to be Auto-Reconciled'.

- Payment with part reconciled status can be reconciled (part/full) only with that entity (expected cashflow or invoice) with which it got part-reconciled earlier (auto or manual).

- Recon Category and Recon Status options in the search parameters are driven by the Action to be performed as given below:

Action	Recon Category	Recon Status
Not to be Reconciled	Cashflow-Payment Recon or Invoice - Payment Recon	Unreconciled or Part-Reconciled
Not to be Auto- Reconciled	Cashflow-Payment Recon or Invoice - Payment Recon	Unreconciled or Part-Reconciled

2.9 Manual Allocation

2.9.1 Overview

Manual allocation allows banks to allocate payments manually to the appropriate virtual accounts. It also allows to appropriate allocation amount amongst multiple virtual accounts. By using this feature, bank user can select unallocated or partly-allocated payments and allocate the same to relevant virtual accounts.

2.9.2 Description

- Screen to search payment record and allocate payment amount is provided.

- Maker and checker for manual allocation is provided.

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- Enhancements are made to the existing recon rule definition screen to enable allocation of payments to virtual accounts as an extension of the reconciliation of other related recon categories such as 'Expected Cashflow to Payment Recon'.

- Rules based on a single entity such as 'Payments' can also be maintained to directly allocate the payment to a virtual account. There is a provision to maintain sequence for each clause/sub rule, thereby allowing AND/OR conditions to be maintained between clauses.

- Recon Rule definition UI is enhanced to have a few new fields to define allocation parameters.

- Allocation grids allows for maintenance of either allocation attributes or virtual accounts based on which allocation requests will be sent to OBVAM.

- A link for 'Preview' is provided where the user can preview the rule-setup in both maker and authorizer screen.

- Existing recon rules definition maintenance is enhanced to allow back office user to match attributes of LHS and RHS entity basis multiple 'pattern type' options. Back office user would further be able to maintain rules or rule clauses against only one entity, if required, and establish 'AND' and 'OR' condition between various clauses/sub rules.

2.10 Commodity Codes Maintenance

2.10.1 Overview

A new screen to maintain and configure commodities is provided. This screen is used for creating new records of commodities and modifying or deleting existing commodity records.

2.10.2 Description

- Screens for creating, modifying, deleting, and authorizing Commodity is provided.

- Maker and checker for Commodity maintenance is also provided.

- Search and view screen for Commodity Maintenance is provided.

2.11 Cash Collection

2.11.1 Overview

Functionality to record collection and withdrawal of cash is supported under 'Cash Transaction' menu. It covers below sub-menus:

- **Cash Denominations**: Denomination is a proper description of a currency amount, usually for coins or banknotes; it is a unit of value given to physical currencies like coins and notes. Denomination detail differ currency to currency. The Bank has to maintain the denomination value for each currency that bank deals with for cash collection/withdrawal.

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- **Deposit Entry**: There are 2 channel through which the cash is being deposited by the Corporate i.e.; Branch or Courier.

  o **Branch**: Cash is deposited directly at the branch by the Corporate/Customer.

  o **Courier**: Corporate has a doorstep banking service enabled in which the courier person pick up the cash and deposit at the branch.

- **Withdrawal Entry**: This screen is a data entry screen for the user to capture Cash Withdrawal details.

  o **Corporate:** On the withdrawal date, the cash is directly collected by the corporate, the bank user captures the cash withdrawal request and enter the corporate recipient detail.

  o **Courier**: On withdrawal date, the courier agency tied up for cash delivery collects the cash from the branch and delivers to the corporate delivery point specified in the withdrawal request. The bank user captures the cash withdrawal request and enters the courier detail.

2.11.2 Description

- Screens for creating, modifying, deleting, and authorizing Cash Denomination is provided.

- Maker and checker for Cash Denomination is also provided.

- Search and view screen for all Cash Denomination is provided.

- Screens for data entry of Cash Deposit and Cash Withdrawal is provided.

- Maker and checker for Cash Deposit and Cash Withdrawal records is also provided.

2.12 Auto Debit

2.12.1 Overview

Invoices can be auto-debited on maturity date basis auto-debit parameters configured in relationship parameters.

2.12.2 Description

- Relationship Parameter screen is enhanced to provide flag for auto-debit.

- Batch jobs have been configured which trigger auto debit for invoices based on relationship parameters.

2.13 Debit Note and Credit Note Creation

2.13.1 Overview

The 'Receivables' module is now renamed as 'Receivables and Payables'. Additionally, support for raising debit notes and credit notes against invoices on behalf of the buyers/suppliers is

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provided. To cater to the added support for credit/debit note, invoice creation and invoice management has been extended to provide support for credit/debit note creation and management.

2.13.2 Description

Several actions, similar to those on an invoice, can be performed on credit/debit notes.

- The 'Create Invoice' screen is now renamed as 'Create Receivables and Payables' with added instrument type for 'Debit Note' and 'Credit Note'. Now, user can create and manage Invoice, Debit Notes, and Credit Notes from this screen.

- The 'Invoice Management' screen has been renamed as 'Receivables and Payables Management'.

2.14 Alert and Notification

2.14.1 Overview

The Alerts Management System is used to configure any kind of customer alerts in the system associated with Invoice or PO event. For example: Invoice acceptance, Invoice cancellation etc. Alert can be configured and managed through two screens namely, 'Alert Definition' and 'Alert Decisioning'.

2.14.2 Description

- Screens for creating, modifying, deleting, and authorizing Alert Definitions and Alert Decisioning are provided.

- Maker and checker for Alert Definition and Alert Decisioning is also provided.

- Search and view screen for all Alert Definition and Alert Decisioning is provided.

2.15 Payment Terms

2.15.1 Overview

The Payment Terms menu helps bank to maintain specific payment frequencies and dates for buyers making bulk payments on repetitive fixed dates. Thus, payment frequencies (basis which he will make invoice payments) such as weekly, monthly etc. can be maintained against each buyer.

2.15.2 Description

- Screens for creating, modifying, deleting, and authorizing Payment Terms are provided.

- Maker and checker for Payment Terms is also provided.

- Search and view screen for all Payment Terms is provided.

- Below changes are done for Invoice processing:

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- o Invoices are marked overdue only after the Payment due date and not Invoice due date.

- o Ageing of Invoices is based on payment due date.

- o Auto-Debit for invoices is based on the payment due date.

2.16 Tolerance

2.16.1 Overview

Reconciliation of repayments with invoices/cashflows may be based on several auto-reconciliation rules such as FIFO, LIFO etc. By using the Tolerance menu, user can configure an acceptable discrepancy between invoice/cashflow and payment receipt to match invoices/cashflow with the respective payment receipts. Such tolerances can be defined for buyer and suppler combination to automate the matching process and mark invoices/cashflows as paid if they fall within the tolerance limits. Tolerances allow transactions to match when they do not have exact matching amounts.

Tolerance can be defined as amount basis or percentage basis supported for 'Invoice-Payment' and 'Expected Cashflow-Payment' reconciliations.

2.16.2 Description

- Screens for creating, modifying, deleting, and authorizing Tolerance configurations are provided.

- Maker and checker for Tolerances is also provided.

- Search and view screen for all Tolerances is provided.

- Auto and manual reconciliation has been enhanced to cater to tolerance application during reconciliation.

2.17 Inquiries

2.17.1 Overview

With this release, several new inquiry screens are added to the system. Additionally, layout of the existing inquiry screens are also enhanced to provide convenience of selecting the columns to be displayed in the inquiry search result.

New inquiries added with this release are as given below:

- Charge Inquiry: To inquire charges applied to the customer.

- Payment Inquiry: To inquire real time information of the status of the payment.

- Cashflow Inquiry: For inquiring status of expected debits and credits. System supports simultaneous search by multiple users.

- Instrument Inquiry: To inquire the status of the CDC/PDC instruments.

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- Purchase Order Inquiry: To inquire the status of the purchase orders.

- Credit Note Inquiry: To inquire the status for the Credit Notes.

- Receivables Inquiry: To inquire about the Invoice and Debit Notes. User can select the 'Instrument Type' as 'Invoice' and 'Debit Note' to view its relevant search parameters.

- Cash Deposit Inquiry: To inquire the status of the cash deposit slip booked in OBCM.

- Cash Withdrawal Inquiry: To inquire the status of the cash withdrawal booked in OBCM.

2.17.2 Description

- Search screen for each inquiry is provided.

- The 'Invoice Inquiry' is renamed as 'Receivables Inquiry'.

- Option to view/hide columns of the search result is provided for all inquiries.

2.18 Integration with Chatbot

2.18.1 Overview

Based on the "Oracle Digital Assistance" framework, OBCM now supports the conversational chatbot feature. By using the chatbot feature, user can inquire about below details by clicking on the chatbot icon.

- **Cash flow Inquiry**: Provides the status of the inflow and outflow cash flow records in the application

2.18.2 Description

- Icon to launch the chatbot window is provided.

2.19 Integration with OBPM

2.19.1 Overview

The OBCM is integrated with the Oracle Banking Payments (OBPM) for incoming payment flow for invoice settlement.

2.19.2 Description

Integration with OBPM framework supports below functionalities:

- Consumption of payment notification/credit info through payment API on invocation of same by OBPM.

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3. Release Enhancements

3.1 Instrument Collection

As a part of this release, layout of the 'Instrument Collection' screen has been enhanced to provide overall better UI to the user:

- Below enhancements are implemented on the 'Basic Info' screen:

  o Toggle button as "Create/Existing" for creating new or existing collection reference number.

  o All the fields are re-aligned/repositioned.

  o 'Courier Details' section is displayed only when the value for 'Deposit Channel' is selected as courier.

- Below enhancements are implemented on the 'Deposit Slip Details' screen:

  o New search field as 'External Reference Number' has been added to search and select the deposit slips mapped to an external system i.e. banking portal, channel etc.

  o New component to display all existing deposit slips has been introduced.

  o Double clicking on the displayed existing deposit slip auto-populates the deposit slip details.

  o Delete icon to remove the existing deposit slip is also provided.

  o The "Create/ Existing" button set is removed.

  o The 'Instrument Details' section displays the details in the grid with column names as Instrument Number, Instrument Date, Amount, Bank, Product, and Action. The instrument can be edited or deleted from the 'Action' column of the grid. Clicking Edit icon from the 'Action' column open pop-up displaying more details about the instrument record.

- Below enhancements are implemented on the 'Deposit Summary' screen:

  o All the fields are re-aligned/repositioned to improvise the layout.

  o The kabab icon (⋮) is added to view more details.

3.2 Aggregate Cash Flow API based on EOD

As a part of this release, existing batch for calculating aggregate cash flow has been enhanced. New service API is added to inquire aggregate cash flow data.

- Batch job calculates cash flow data based on different category and aggregation frequency.

- Aggregation category requires are - Corporate, Counterparty, Real Account Number, Cashflow Code/Description, Virtual Account Number.

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- Aggregation Frequency requires are - Daily, Weekly, Monthly and Quarterly.

- For week start, month start, quarter start - Parameter maintained as branch level is considered.

- All aggregation are done in branch currency.

- Aggregate data is re-calculated for any modification or deletion of cash flow transaction.

- Configuration parameter is added to control which API going to return for past and future cash flow. Configuration is based on months.

3.3 <u>File Upload</u>

As a part of this release, the 'File Management' module has been enhanced with below functionality support:

- Additional fields in Invoice File: Funding Request Amount and 4 filler fields.

- Additional fields in Payment File: Payment file received with the 'Flag' field as "A" will indicate that the payment is to be allocated to a virtual account.

- Uploading files for Purchase Order is supported.

- Uploading files for Expected Cashflow is supported.

- Uploading files for Debit/Credit Note is supported.

- Uploading files for counterparty details is supported.

3.4 <u>Arrangement Definition and Decisioning</u>

As part of this release, the Arrangement Definition and Arrangement Decisioning functionality has been enhanced with below features:

Credit Reversal: Fields for credit reversal are provided. Pooling job picks up entries based on Arrangement days for the corporate and filter criteria etc. and posts credit reversal entries. The reversal entries will be either direct debit customer's account or from collections.

Return Recovery: Fields for return recovery are provided. This serves as provision to recover funds through debit to the account of the corporate or wait for next collection and recover from that batch.

Bank Float Arrangement: Field to enable/disable the bank float arrangement is provided. This enables bank to credit/utilize the instrument amount as a float to the bank office account until date of credit arrangement with the corporate.

Forced Debit Recovery: Field to enable/disable the forced debit recovery is provided. This enables bank to recover funds (in case of arrangement customers and non-arrangement customers) where the credit has been given to the customer. With this, bank can initiate a

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reversal/recovery transaction and pass a debit from customer's bank account in case of insufficient funds.

Apply For All Products: Enabling this switch helps user to set up arrangement for all products at once which results into saving time. In case there is an exception then such can be maintained again. At time of pooling etc., system will first search for exact product first, if not found, then apply arrangement maintained for "All".

- Below enhancements are implemented specifically in the 'Arrangement Decisioning' screen:

    o Toggle switch as 'Apply to all products' is provided.

    o The search filed to select Corporate is displayed when the 'Filter Criteria' is selected as 'Corporate'.

    o All the fields automatically gets enabled/disabled or re-positioned/re-aligned based on relevant selections to provide UI experience. For example: Fields such as 'Currency', 'From Amount', and 'To Amount' gets enabled only after enabling the 'Amount Based Arrangement' toggle.

    o 'Link Arrangement' toggle is provided to enable the linking of the arrangement codes.

- Below enhancements are done in 'Accounting Entry' screen w.r.t. the changes implemented in Arrangement Definition/Decisions.

    o In the Event field:

        – Credit Reversal

        – Return Recovery

    o In the Filter Criteria field:

        – Account Debit

        – Out Of Collections

        – Float Arrangement (Only for 'Realization' event)

        – Default (Only for 'Return Recovery' event)

3.5 Invoice and PO Based Charges

To apply charges at any stage of the lifecycle of a purchase order or instrument, support for configuring charges for all the relevant lifecycle events is provided.

- Charge event dropdown lists the events of the lifecycle of an invoice/PO basis which charges are to be levied.

- Charges configured for an invoice to apply for Debit Notes also.

- Instrument Status lists status of invoice on which charges can be levied.

- The application charges only once for a given status for an invoice. For example, charge is levied on "Assigned" status. If an Assigned invoice is disputed and then this dispute is

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resolved, then the invoice status is changed back to "Assigned". Charge will not be levied again in such a case.

- Charge Decisioning screen has been updated with the below events:
  - Assignment
  - Dispute
  - Invoice Payment

- Charge Decisioning screen has been updated with Filter Criteria as 'Insturment Type Status Based'.

- In the 'Charge Decisioning' screen, Instrument Status has been updated with below value for 'PO' instrument type.
  - Raised
  - Rejected
  - Cancelled
  - Accepted

3.6   Recon Definition and Decisioning

As part of this release, the Recon Definition and Recon Decisioning functionality has been enhanced with support for expected cashflows, credit note, and virtual account allocation:

- Enhancement in Recon Rule Definition screen:
  - New recon category for "Expected Debit/Credit Payment Recon" is added.
  - In the Payment Attributes, the LHS reflects attributes for Expected Debits/Credits.
  - Fields for account/attribute allocation for payment record are provided in recon definition
  - Redesigned to support nested conditions for configuration of reconciliation rules.
- Enhancement in Recon Rule Decisioning screen:
  - Recon category for Credit note is provided.
  - Recon category for Expected Dr/Cr to Payment Recon.

3.7   Manual Recon

As part of this release, the 'Manual Recon' screen has been enhanced to include matching of Payments with Expected Dr/Cr.

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- Maintenance of an additional reconciliation category for matching outstanding / unmatched payment to expected debits and credits.

- User can reconcile both payments and credit notes against invoices at one go. Recon category 'Invoice to Payments Recon' is replaced by 'Invoice to Payments/Credit Notes Recon' which list options to search both payments and credit notes against invoices. Similarly, the grid for unreconciled Payments will also list unreconciled credit notes.

- Bank user can manually reconcile outstanding payment with expected cashflows that are not processed by the auto-recon processing rules engine.

- Provided additional fields to search unreconciled and reconciled expected cashflow-payment record and take required action to correct the data.

- List of invoices displayed are as per the suggestive matching for One Payment to Multiple Invoices and cashflow reconciliation.

- The screen also displays recon rules maintained in the application against a payment record.

- The search criteria is improved with addition of search parameters.

- As and when a reconciliation is done, OBCM publishes the data of matched records on a kafka queue/projection server.

- As and when a reconciliation is done OBCM publishes the data of matched records to cashflow forecasting engine.

3.8 Auto-Recon for Invoice-Credit Note

A new reconciliation category is added in the application to allow reconciliation of invoices with credit notes. Similar to the existing recon categories, this new category will allow the user to create recon rules for attributes of a credit note with attributes of an invoice. Reconciliation of invoices against credit notes will be triggered whenever a credit note is created or uploaded, if the rule conditions are satisfied.

3.9 Invoice Management

As a part of this release, invoice management functionality (In Receivables and Payables Management screen) has been enhanced so that the bank user can perform below additional actions.

Below actions can now be taken on invoices:

- Edit Invoice

- Resolve disputed invoice

- Write-off disputed invoice

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3.10 <u>Accounting Entries</u>

The Accounting Entry screen is enhanced to include the events as listed below to cover different functional scenarios of collection:

- Realization

- Arrangement Credit

- Pooling

- Credit Reversal

- Return

3.11 <u>Dashboards</u>

Dashboards are a collection of various portlets wherein user based on their role and user level data access can view appropriate. Portlet are a collection of widgets that give user an overview of the reports and metrics that aids the user in operational/business reporting and analytics. ; Users can drag and re-position different portlets, adjust their size, expand or collapse them, rename their header text etc.

In addition to the existing ones, below new portlets are released:

- Unrealized Instrument Aging

- Instrument Status

- Reconciliation Dashboards

3.12 <u>Invoice Inquiry</u>

As part of this release, the 'Invoice Inquiry' has been renamed to the 'receivables Inquiry'. Below enhancements are implemented in the search screen for invoice:

- User can select multiple invoice statuses to search.

- Historical statuses are displayed in the search result grid.

3.13 <u>Integration and Adoptions</u>

3.13.1 <u>Integration via OBRH</u>

All integrations of OBCM application are routed via OBRH. OBRH enables seamless & standardized integrations between OBCM and other banking products using configurations provided as part of the product infrastructure.

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3.13.2   Adoption of Event Hub

Event Hub is an abstraction provided for sending and receiving messages via Kafka with inbuilt duplication checks and guaranteed message delivery features.

3.13.3   Adoption of Batch Server

Batch server provides triggering of batch tasks based on a DSL (Domain Specific Language). It supports:

- Dynamic addition of Spring Cloud Data Flow DSL's for both event based and CRON based triggers.

- Dynamic registration of tasks.

- Screens have been provided to support Configure, View, Trigger, and Monitor the batch tasks.

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4. Deprecated Functionality

Below list describes the fields/functionality/screens/features that are discontinued with the OBCM release 14.5.0.0.0.

- **Cashflow Statement** screen is deprecated from this release.

- In the 'Manual Recon' screen, the option of reconciling by '**Many Invoice/Cashflow to Many Payment**' is removed from the 'Reconcile By' dropdown list.

- **Application Code** field is removed from the system's user interface and has been defaulted to the logged in user session.

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5. Patches and Bugs

Bug Id	Bug Description	Fix Description

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6. Security Fixes

NA

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7. Limitations and Open issues

This chapter covers the known limitations and open issues of the OBCM.

Bug Id	Bug Description

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8. Components of the Software

8.1 Documents accompanying the software

The various documents accompanying the software are as follows:

- Release Notes

- Installer Kit

- User Manuals and Installation manuals

8.2 Software Components

Software Components of OBCM 14.5 that form part of this release are as follows:

- Core

  o UI Components (Knockout, OJET, Lux)

  o The Swagger / YAML for the services supported

  o Configuration files for the services

  o Service Components

  o Tables, Sequences, Static Data

- Installation utilities

  o Installation documents for Database, UI, Web services

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9. Annexure – A: Environment Details

Oracle Banking Cash Management			
Application Server	Oracle Linux Server Release 8.3 (x86 64 Bit)	Java HotSpot (TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 281
		Oracle WebLogic	12.2.1.4.0
		Oracle Repository Creation Utility (RCU)	12.2.1.4.0
		Oracle Fusion Middleware Infrastructure	12.2.1.4.0
Database Server	Oracle Linux Server Release 8.3 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	19.10.0.0.0 (19c)
Document Management System	Oracle Linux Server Release 8.3 (x86 64 Bit)	Oracle WebCenter Content Imaging	12.2.1.4.0
Client Machines#		Mozilla Firefox	87+
		Google Chrome	88+
		Microsoft Edge	89+
		Apple Safari	14+
Browser Support is strictly tied to the Browser itself, and no longer based on the Operating System. Current release is certified on client workstations with Windows 10 and Mac.			

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10. Annexure – B: Third Party Software Details

Sr. No.	Copyright Holder Data Owner	Licensed Item ID	Licensed Item Name	Licensed Item Version	BA ID
1	Eclipse Foundation	59202	EclipseLink	2.7.7	86580
2	JSON.org	60616	JSON	20200518	86522
3	Joe Walnes	63649	XStream	1.4.14	89898
4	The Apache Software Foundation	57096	POI	4.1.2	86574
5	Project Lombok	62966	Lombok	1.18.16	90843
6	QOS.ch	55962	Simple Logging Facade for Java (SLF4J)	1.7.30	87236
7	The Apache Software Foundation	61192	Kafka	2.6.0	87153
8	Python Software Foundation	62207	Python	3.8.6	88581
9	jsoup.org	58378	jsoup	1.13.1	82944
10	Steven Sanderson	51996	Knockout.js	3.5.0	87534
11	Google	58644	Guava	29	86442
12	Benjamin Peterson	59737	six	1.15.0	88243
13	FasterXML, LLC	61527	jackson-jaxrs-json-provider	2.11.2	86519
14	The Pallets Team	59071	Flask	1.1.2	87525
15	Pivotal Software, Inc	61593	spring-cloud-stream-binder-kafka	3.0.8.RELEASE	86720
16	jsonwebtoken.io	60118	jjwt	0.11.2	86581
17	FasterXML, LLC	62084	jackson-dataformat-xml	2.11.2	86518
18	Alec Koumjian	62697	datefinder	0.7.1	87889
19	Olli-Pekka Heinisuo	61297	opencv-python	4.3.0.36	84688
20	Edouard Belval	62790	pdf2image	1.14.0	88100
21	Vladimir Goncharov	67226	pyap	0.3.1	95480
22	OpenJS Foundation	61260	lodash	4.17.20	88244
23	Python Software Foundation	55914	python-dateutil	2.8.1	88165
24	Marco Ziccardi	35513	Node-TimSort	0.3.0	87530
25	Schibsted Marketplaces Products	59746	jslt	0.1.9	87399
26	Boxfuse GmbH	61597	flyway-core	6.5.5	86517
27	Zalando SE	61412	connexion	2.7.0	88562
28	Google	64214	Tesseract	4.1.1	95479

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Sr. No.	Copyright Holder Data Owner	Licensed Item ID	Licensed Item Name	Licensed Item Version	BA ID
29	Scrapinghub	62792	dateparser	0.7.6	88103
30	Pivotal Software, Inc	62387	Spring Cloud Sleuth	2.2.5.RELEASE	87147
31	Pivotal Software, Inc	61528	Spring Security	5.3.4.RELEASE	86314
32	The Netty Project	62363	netty-transport-native-epoll	4.1.52.Final	87076
33	SmartBear Software	64411	swagger-ui	3.39.0	91487
34	SmartBear Software	60156	swagger-annotations	1.6.2	86668
35	Zaxxer.com	59481	HikariCP	3.4.5	86719
36	josdejong	51995	math.js	5.9.0	87537
37	QOS.ch	61711	log4j-over-slf4j	1.7.30	87045
38	Barthelemy Dagenais	59064	py4j	0.10.9	88163
39	Oracle	61232	JavaScript Extension Toolkit (JET)	9.1.0	96367
40	Stuart Knightley et. al	51994	JSZip	3.2.1	87533
41	scipy.org	63004	SciPy	1.5.3	88571
42	scikit-image team	62791	scikit-image	0.17.2	88102
43	The Apache Software Foundation	62730	spring-cloud-starter-netflix-zuul	2.2.5.RELEASE	87944
44	The Apache Software Foundation	62732	spring-cloud-netflix-eureka-client	2.2.5.RELEASE	87947
45	Pivotal Software, Inc	61592	spring-cloud-stream	3.0.8.RELEASE	86999
46	Jonathan Halterman	59507	modelmapper	2.3.8	86669
47	The Apache Software Foundation	62141	Commons IO	2.8.0	88241
48	Alex Clark and contributors	60093	Python Imaging Library (Pillow)	7.2.0	88098
49	The Apache Software Foundation	62973	spring-cloud-netflix-eureka-server	2.2.5.RELEASE	88509
50	Adam Hupp	62799	python-magic	0.4.18	88166
51	The Apache Software Foundation	62389	ZooKeeper	3.6.2	87164
52	Pivotal Software	62708	spring-cloud-netflix-core	2.2.5.RELEASE	87901
53	Pivotal Software, Inc	62001	Spring-Security-Oauth	2.5.0.RELEASE	86315
54	Pivotal Software, Inc	62702	spring-cloud-config-client	2.2.5.RELEASE	87897
55	Matthias Lee	60944	pytesseract	0.3.4	83844
56	Jason R Coombs	62694	Configparser	5.0.0	87887
57	MapStruct Authors	67120	mapstruct	1.4.2.Final	95329
58	Apache 2.0	63707	tika-core	1.25	97435

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Sr. No.	Copyright Holder Data Owner	Licensed Item ID	Licensed Item Name	Licensed Item Version	BA ID
59	SmartBear Software	62548	swagger-parser	2.0.22	87550
60	pypi.org	61997	pybase64	1.0.1	88360
61	The Apache Software Foundation	63867	velocity-tools-generic	3.0-422ed61	90380
62	Apache Software Foundation	57695	Velocity Engine	2.2	86577
63	The Apache Software Foundation	53857	cglib	3.3.0	72478
64	Kalle Stenflo	59742	JsonPath	2.4.0-1ed1ea0	87401
65	The Apache Software Foundation	49220	Commons FileUpload	1.4	88426
66	FasterXML, LLC	62631	jackson-dataformat-cbor	2.11.2	87748
67	The Netty Project	62362	netty-codec-http	4.1.52.Final	87073
68	VMware	67360	micrometer-registry-prometheus	1.6.4	96451
69	Apache Software Foundation	62632	camel-core	3.5.0	87752
70	Apache Software Foundation	62793	camel-cxf	3.5.0	88107
71	Apache Software Foundation	62794	camel-resilience4j	3.5.0	88108
72	The Apache Software Foundation	62727	spring-cloud-starter-netflix-eureka-client	2.2.5.RELEASE	87948
73	Tim Wood, Iskren Chernev, Moment.js contributors	49010	Moment.js	2.24.0	98631
74	Quan Nguyen	68626	tess4j	4.5.4	98076
75	Pivotal, Inc.	61216	Spring Boot	2.3.3.RELEASE	86910
76	The Apache Software Foundation	56296	PDFBox	2.0.18	88373
77	Apache Software Foundation	59221	Apache FOP	2.5	87059
78	NumPy Developers	59912	NumPy	1.19.0	83082
79	The Apache Software Foundation	62725	spring-cloud-starter-netflix-eureka-server	2.2.5.RELEASE	88488
80	Barry Warsaw	60231	importlib-metadata	1.7.0	88489
81	Pivotal Software, Inc	62706	spring-cloud-starter-config	2.2.5.RELEASE	87900
82	Pivotal Software, Inc	62705	spring-cloud-config-server	2.2.5.RELEASE	87899
83	Netflix	62968	Conductor	2.30.1	88494
84	JS Foundation and other contributors	58838	jQuery	3.5.1	87532

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Sr. No.	Copyright Holder Data Owner	Licensed Item ID	Licensed Item Name	Licensed Item Version	BA ID
85	The Apache Software Foundation	61806	OpenNLP-tools	1.9.3	85908
86	Oracle	57812	Jakarta Mail	1.6.5	83350
87	The Apache Software Foundation	60358	Avro	1.10.0	86513

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