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Financial Services

Product Release Notes

Oracle Banking Supply Chain Finance

Release 14.4.0.0.0

Part No. F30771-01

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Oracle Banking Supply Chain Finance
Product Release Note
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Oracle Financial Services Software Limited
Oracle Park
Off Western Express Highway
Goregaon (East)
Mumbai, Maharashtra 400 063
India

Worldwide Inquiries:
Phone: +91 22 6718 3000
Fax: +91 22 6718 3001
https://www.oracle.com/industries/financial-services/index.html

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1. Release Notes

1.1 Background / Environment

Oracle Financial Services Software Limited has developed Oracle Banking Supply Chain Finance solution. It is a comprehensive digitized end-to-end solution that supports the full lifecycle of supply chain finance across receivables and payables offering supplier centric financing and buyer centric financing. The solution addresses each of the supply chain processes from design through execution thereby enabling banks to optimize the working capital and supply chain operations of their corporate customers. 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.

1.2 Purpose

The purpose of this Release Note is to highlight the functionality included in the Oracle Banking Supply Chain Finance 14.4.0.0.0 Release.

1.3 Abbreviations

Abbreviation	Detailed Description
OBSCF	Oracle Banking Supply Chain Finance
FCUBS	FlexCube Universal Banking System
OBDX	Oracle Banking Digital Experience
ELCM	Enterprise Limits and Collateral Management
API	Application Programming Interface (Conversion Open Interface)
NLP	Natural Language Processing

1.4 Product Summary

Oracle Banking Supply Chain Finance Release 14.4.0.0.0 is enhanced to meet various challenges faced by financial institutions. It addresses each of the supply chain 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 Release Highlights

The key highlight of this release is to release new functionalities added in 14.3.0.0.0 and enhancements made in the existing features, required for supply chain finance industry with the cutting edge technology.

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Following list highlights the features/ modules and enhancements released with the OBSCF 14.4.0.0.0:

New Functionalities

- Charges

- Relationship Management

- Preferential Interest Rate

- Manual Reconciliation

- Insurance

- FCUBS Integration

- VAM Integration

- ELCM Integration

- NLP Toolkit for Enabled Invoice Reading and Capture

- WebCenter Content Integration

Release Enhancements

- Dashboards

- System Level Parameters

- Program Parameters

- Program Linking for Financing

- Invoice Management

- Limit Management

- OBDX Integration

- Migration to Plato Orchestrator

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2. Features

2.1 Charges

2.1.1 Overview

Banks are empowered to configure flexible and preferential pricing as per corporate risk profile and assessment. Various pricing methods like fixed amount/percentage, slab based and tiered based can be configured as per bank's requirement. Calculation and collection frequency like monthly, weekly, yearly, etc. can also be defined for a charge. Both standard and discount type of charge is supported.

Charges module comprises of below sub-modules:

- Charge Code

- Charge Decisioning

- Charge Preferential Pricing

- Charge Rule Maintenance

2.1.2 Description

- Screens for creating, modifying, deleting, and authorizing from all the Charges Sub-Modules is provided.

- Maker and checker for all Charges Sub-Modules is also provided.

- Search and view screen for all Charges Sub-Modules is provided.

- Batch job is provided to calculate and post the charges during EOD

2.2 Relationship Management

2.2.1 Overview

Relationship Management enables banks to configure and maintain the relationship between Corporates and Counterparty. Corporates can use this feature to link Buyers and Suppliers as a Counterparty.

2.2.2 Description

- All non-customers will be created through relationship maintenance screen.

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

- Maker and checker for Relationship Maintenance is also provided.

- Search and view screen for Relationship maintenance is provided.

2.3 Preferential Interest Rate

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2.3.1 Overview

Through the Preferential Interest Rate module, banks can define and configure - preferential pricing for various interest components like normal interest, overdue interest, and penalty on interest. Both fixed and floating interest types can be levied. Banks also have a flexibility to customize spread basis amount and tenor at the corporate or product level.

2.3.2 Description

- Screen for creating, modifying, and deleting interest pricing is provided.

- Interest Rate Decisioning screen is provided for mapping of authorized Interest pricing.

- Maker and checker for Interest pricing is also provided.

- Search and view screen for Interest pricing and Interest Rate Decisioning is provided.

2.4 Manual Recon

2.4.1 Overview

Bank user has a flexibility to manually reconcile outstanding payment with invoice(s) or finance(s) for cases that are not processed by the auto recon processing rules engine.

2.4.2 Description

- Screen provided to search Unreconciled and Reconciled invoice/ payment record and take required action to correct the data.

- Screen to authorize manually reconciled record is provided.

- Maker-checker for Manual Recon is also implemented.

2.5 Insurance

2.5.1 Overview

Through the Insurance master module banks can maintain details of the insurance company from which it intends to purchase insurance policies for covering the default risk of the debtor/borrower corporate. Details of various insurance policies availed through that insurance agent can also be maintained. Individual policies can be linked to debtor/borrower party to track limit related exposure at policy level.

2.5.2 Description

- Screen provided to create, modify, view or delete insurance details.

- Maker-checker functionality for insurance is also provided.

2.6 FCUBS Integration

2.6.1 Overview

OBSCF is now pre-integrated with FCUBS for accounting entry posting and marking lien.

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2.6.2 Description

- To perform balance check and account related validation for upcoming debit transactions, creation of ECA block from OBSCF to FCUBS is provided.

- For cancellation, FCUBS processes the ECA cancel request and release the amount block created on ECA block.

- Once Disbursement and settlement request is authorized from the My Task, Accounting entry is posted in FCUBS.

2.7 VAM Integration

2.7.1 Overview

Repayments received in virtual accounts can now be reconciled with corresponding invoices in Oracle Banking Supply Chain Finance.

2.7.2 Description

- Provision of option to fetch the virtual accounts linked to a corporate and the corporate linked to a virtual account.

- Either customer Id or virtual account number is provided for searching the invoices to be reconciled.

2.8 ELCM Integration

2.8.1 Overview

Enterprise and collateral wide limits can now be fetched and utilized from ELCM for buyer/supplier corporate. Banks will have an option to maintain, track and reconcile ELCM limits from within OBSCF application.

2.8.2 Description

Below services are utilized from ELCM API:

- **ELBlockService** – To provide Earmark facilities.

- **ELUtilizationService** – To provide Utilize facilities.

- **ELValidLimitService** – To provide Fetch facilities.

2.9 NLP Toolkit for Enabled Invoice Reading and Capture

2.9.1 Overview

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

2.10 WebCenter Content Integration

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2.10.1 <u>Overview</u>

Banks can now upload scanned documents/artifacts like agreements with buyer and supplier, documents of the counterparty, etc. which can be retrieved and referred as and when required from within OBSCF application.

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3. Release Enhancements

3.1 Dashboards

Dashboard is to display gist / summary for the user that is internal to the bank. It is a collection of various portlets wherein user based on their role and user level data access can view different portlet. Dashboard enables bank administrator to perform various analytical function. Provided dashboard is as configurable as possible where user can drag and move different portlet, Auto size adjustment for different portlet, expand and collapsed feature, facility to rename header text of the portlet and change the value of x-axis or the y-axis by bank during implementation.

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

- Raised Invoices

- Ageing of the invoices

- Top 10 corporates (payables and receivables)

- Business volume trends

3.2 System Level Parameters

System level parameters have been enhanced to include auto-authorization parameters for invoice/ payment.

- The "isPaymentAutoAuth" parameter is added to set the flag for Auto-authorization of payments.

  o Set the parameter flag to N to apply maker-checker functionality after creating, modifying, or taking an action on payment.

  o Set the parameter flag to Y to auto-authorize the records created by a maker.

- The "isAutoAuth" parameter is added to set the flag for Auto-authorization of Invoice and finance.

  o Set the parameter flag to N to apply maker-checker functionality after creating, modifying, or taking an action in invoice/ finance.

  o Set the parameter flag to Y to auto-authorize the records created by a maker.

3.3 Program Parameters

Program parameter has been enhanced to include new attributes relevant to the Relationships and Interest. Below fields are now added in the various tabs of Program Parameters screen:

- Basic Information tab

  o Relationship

- Finance Parameters tab

  o Grace Days

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- o Interest Bearing Party
- Link Spokes tab
  - o Grace Days
  - o Interest Bearing Party

3.4   Program Linking for Financing

Corporates/ Banks will have an option of availing finance on their existing receivables that were not linked to supply chain finance program but registered as pure receivables.

3.5   Invoice Management

Below enhancements are done in the Invoice Management master and Invoice Inquiry screen:

- Invoice Batching
  - o In addition to the batching criteria of Invoice due date, buyer/ supplier corporate, and currency, invoice batching can now be done on the basis of business division/ segment codes of a Corporate.
  - o Single finance can be created linked to the whole batch of invoices.
- Invoice Creation
  - o Relationship can be added to the Invoice information.
  - o Invoice can be created without linking it with the program. However, finance cannot be initiated without program linking.
  - o Maker-checker functionality is applicable.
- Invoice Search
  - o Invoice can be searched on the basis of relationship.
- Invoice Processing
  - o Invoice does not get authorized automatically as "isautoauth" flag is now set to N in system parameter.
  - o Maker-checker functionality is implemented.
- Invoice Inquiry
  - o Invoice inquiry screen is provided with the Relationship field to search for the invoices.

3.6   Limit Management

- Banks can now configure various limit types like credit cover limits, concentration limits, advance payment limits, invoice limits, finance limits, recourse limits, etc. at anchor level and various sub levels like counterparty, product and program. Banks can also define pool limits for effective limit utilization/sharing between two different entities. In addition, for Factoring, Insurance based limits and Import Factor limits can also be defined to cover debtor default enabling effective risk control and mitigation.

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3.7   <u>OBDX Integration</u>

- OBSCF's pre-integration with OBDX is now enhanced to cover counterparty onboarding and settlement of finance.

3.8   <u>Migration to Plato Orchestrator</u>

- All the process flows viz. Invoice Management, Finance Disbursement and Settlement, Manual Reconciliation are migrated to Process Orchestrator.

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4. Deprecated Functionality

NA

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5. Patches and Bugs

BugID	Bug Description	Fix Description

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6. Security Fixes

NA

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7. Limitations and Open issues

7.1 Limitations and open issues

BugID	Bug Description
[31260588](#)	Operation code in free task screen.

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8. Patchset Release 14.4.0.1.0

8.1 Features

8.1.1 Purchase Order Management

8.1.1.1 Overview

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

8.1.1.2 Description

- Screen for creating purchase orders is provided.

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

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

8.1.2 Charges Inquiry

8.1.2.1 Overview

Charges inquiry screen allows bank to search and view details of the various charges being maintained in the system.

8.1.2.2 Description

- Search screen for payment inquiry is provided.

8.1.3 Payment Inquiry

8.1.3.1 Overview

Payment Inquiry screen allows bank to search and view details of the payment records maintained in the system.

8.1.3.2 Description

- Search screen for payment inquiry is provided.

8.2 Enhancements

8.2.1 File Upload

As a part of this release, File Upload module has been enhanced with below functionalities:

- Additional fields of Invoice and Payment File

- Uploading files for Purchase Order is supported.

- Uploading files for Expected Cashflow is supported.

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8.3   Interfaces

- Payments through messaging channels is now supported.

8.4   Deprecated Functionality

NA

8.5   Patches and Bugs

NA

8.6   Security Fixes

NA

8.7   Limitations and Open issues

Bug Id	Bug Description

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9. Patchset Release 14.4.0.2.0

9.1 Features

9.1.1 Payment Management

9.1.1.1 Overview

Payment Management 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'.

9.1.1.2 Description

- Screen to search payments and take action on it is provided.

- Maker and checker for payment management is provided.

9.1.2 Manual Allocation

9.1.2.1 Overview

Manual allocation allows banks to allocate payments manually to the selected virtual accounts. It also allows to divide allocation amount amongst multiple virtual accounts.

9.1.2.2 Description

- Screen to search payments and allocate amount is provided.

- Maker and checker for manual allocation is provided.

9.1.3 Accounting

9.1.3.1 Overview

A master menu as 'Accounting' is added which is segregated into below sub-menus:

- Accounting Roles

- Entry Codes

- Accounting Entries

- External Account Mapping

- Internal Account Mapping

9.1.3.2 Description

- Screen for creating record from each sub-menu of Accounting is provided.

- Screen for managing (search/modify/view/process) records from each sub-menu of Accounting is provided.

- Maker and checker for creating/managing records from each sub-menu of Accounting is provided.

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9.1.4   Invoice Management - Actions

A bank user can take below list of new actions on Invoices through Invoice Management screen:

- Edit Invoice

- Write off Dispute

- Assignment

- Reassignment

- Resolve disputed invoice

9.1.5   Accounting Inquiry

9.1.5.1   Overview

Accounting inquiry screen allows bank to search and view details of the accounting details maintained in the system.

9.1.5.2   Description

- Search screen for accounting inquiry is provided.

9.1.6   Structure Limits Inquiry

9.1.6.1   Overview

The Structure Limits Inquiry screen allows you to search for the party limits based on the limit structure defined for them.

9.1.6.2   Description

- Search screen for structure limit inquiry is provided.

9.1.7   Structure Limits Transaction Inquiry

9.1.7.1   Overview

The Structure Limits Transaction Inquiry screen allows you to search for the party limits with respect to a specific transaction.

9.1.7.2   Description

- Search screen for Structure Limit Txn inquiry is provided.

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9.2 <u>Enhancements</u>

9.2.1 <u>Invoice Management – Bunching Logic</u>

As a part of this release, Invoices will be bunched and internal reference number will be generated basis on the program, buyer, supplier, and currency; for invoice actions like assignment, re-assignment, dispute, write-off dispute, and dispute resolution.

9.2.2 <u>Product Parameter</u>

As a part of this release, below list of enhancements are implemented in the in the Product Parameter screen:

1. New toggle switches added in the 'Basic Info' tab:

   o Assignment Applicable

   o Auto Assignment

   o Acceptance Applicable

   o Auto Acceptance

   o Auto Acceptance (Days)

2. New toggle switches added in the 'Finance Parameters' tab:

   o Disbursement Auth Required

   o Disbursement Auto Processing

   o Settlement Auth Required

   o Settlement Auto Processing

3. Additional list of values available in 'Maturity date calculation' field of 'Repayment Parameters' tab:

   o PO Date

   o PO date + Max Tenor

   o Business Date + Max Tenor

9.2.2.1 <u>Invoice Processing as per Product Parameters</u>

Due to enhanced functionalities of the product parameter configuration, invoice processing would be done as per below combination of flags configured at product parameter level:

Assignment Applicable	Auto Assignment	Auto Finance	Acceptance Applicable	Result
Y	Y	Y	N	Invoice will get auto-assigned and auto-financed.
Y	Y	N	N	Invoice will get auto-assigned but not auto-financed. However, manual financing is possible.

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Assignment Applicable	Auto Assignment	Auto Finance	Acceptance Applicable	Result
N	N	Y/N	N	Invoice will not get auto-assigned. Hence, invoice should be financed based on the auto-finance flag at the time of invoice upload itself.

Acceptance Applicable	Auto Acceptance	Auto Assignment	Auto Finance	Result
Y	Y	Y	N	Invoice will get auto-accepted and auto-assigned.
Y	Y	N	N	Invoice will get auto-accepted and not auto-assigned
N	N	Y/N	N	Invoice will not get auto-accepted. However, the same can be manually assigned based on the auto-assignment flag at the time of invoice upload itself.

Acceptance Applicable	Auto Acceptance	Auto Finance	Assignment Applicable	Result
Y	Y	Y	N	Invoice will get auto-accepted and auto-financed.
Y	Y	N	N	Invoice will get auto-accepted and not auto-financed.
N	N	Y/N	N	Invoice will not get auto-accepted. However, the same will get auto-financed/manually financed based on the auto finance flag.

9.2.2.2 Finance Processing as per Product Parameters

Due to enhanced functionalities of the product parameter configuration, disbursement and settlement of the finance would be done as per below combination of flags configured at product parameter level:

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Auto Finance	Disbursement Auth Required	Disbursement Auto Processing	Result
Y	N	Disable	No maker/checker, complete STP in invoice file upload (based on the acceptance/assignment applicable flags).
Y	Y	Disable	Transaction should land in authorization queue (based on the acceptance/assignment applicable flags).
N	Y	Y	Transaction should land in checker queue, when invoice get manually financed from OBDX/Invoice management.
N	Y	N	Transaction should land in maker queue, when invoice get manually financed from OBDX/Invoice management.
N	N	Y	Transaction should follow STP workflow (no maker and checker), when invoice get manually financed from OBDX/Invoice management.

Auto Settlement	Settlement Auth Required	Settlement Auto Processing	Result
Y	N	Disable	No maker/checker, complete STP on payment file upload/manual recon.
Y	Y	Disable	Transaction should land in authorization queue on payment file upload/manual recon.
N	Y	Y	Transaction should land in checker queue, when invoice/finance get manually settled from OBDX/finance settlement.
N	Y	N	Transaction should land in maker queue when invoice/finance get manually settled from OBDX/finance settlement.
N	N	Y	Transaction should skip maker and checker queue, when invoice/finance gets manually settled from OBDX/finance settlement.

9.3   Interfaces

NA

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9.4　Deprecated Functionality

NA

9.5　Patches and Bugs

NA

9.6　Security Fixes

NA

9.7　Limitations and Open issues

Bug Id	Bug Description

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10. Patchset Release 14.4.0.3.0

10.1 <u>Features</u>

10.1.1 <u>Commodity Codes Maintenance</u>

10.1.1.1 <u>Overview</u>

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

10.1.1.2 <u>Description</u>

- 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.

10.1.2 <u>Purchase Order Inquiry</u>

10.1.2.1 <u>Overview</u>

Purchase Order Inquiry screen allows bank to search and view details of the purchase order records maintained in the system.

10.1.2.2 <u>Description</u>

- Search screen for purchase order inquiry is provided.

10.1.3 <u>Chabot (Virtual Assistant)</u>

10.1.3.1 <u>Overview</u>

The back office user can inquire outstanding finances for any customer via Chatbot which can be enabled via switching on the virtual assistant.

The user need not go to Finance Inquiry screen and inquire for finances by entering the search criteria.

10.1.3.2 <u>Description</u>

- Chat user interface for chatbot feature is provided.

10.1.4 <u>Auto Debit</u>

10.1.4.1 <u>Overview</u>

Invoices and Finances can be auto-debited based on the auto-debit parameters configured in relationship and program parameters.

10.1.4.2 <u>Description</u>

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

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- Program Parameter screen is enhanced to provided flag for auto-debit.

10.2 Enhancements

10.2.1 Dashboards

As part of this release, below listed dashboard will include purchase order related information:

- Finance Maturing

- Top Borrowers

- Transaction Status

10.2.2 Relationship Management

As part of this release, the Relationship Management has been enhanced to include fields for Auto Debit and Holiday Treatment by using which bank user can override the maintenance at an individual buyer or supplier level.

- The system will allow the user to modify auto-debit parameters in accordance with existing framework.
- When auto-debit parameters are modified, they will be applied to the relevant outstanding transactions (i.e. invoices or finances) from the subsequent auto-debit batch.

10.2.3 Recon

As part of this release, below enhancements are implemented with respect to the reconciliation maintenance and processing:

- Recon Rule Definition screen has been redesigned to support nested conditions for configuration of Reconciliation Rules.

- Auto Reconciliation has been improved to include routing to Manual Queues in case of Failure.

10.2.4 Manual Recon

As part of this release, manual reconciliation screen is enhanced in multiple ways:

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

- The screen also shows Recon Rules maintained in the application against a payment Record.

- The search criteria is improved with addition of Search Parameters.

10.2.5 NLP Toolkit support for Purchase Order

As part of this release, the NLP toolkit now supports capturing purchase order data from scanned copies of purchase orders and save them without manually keying in the requisite data.

10.2.6 Purchase Order Management

As part of this release, Purchase Order management is enhanced to cover below functionalities:

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1. **Stale Status:** The status of the purchase order batch can be marked as 'Stale' based on EOD or BOD as per configuration. When the batch job is configured as part of BOD batch, following will be the logic of updating Stale:

   o When PO date + Stale period < Current Branch date; update PO status as Stale.

   o Stale period will be first looked from Product set up, if not present than refer system level set up. Status will not be updated if setup is not present at both the places.

   For example: PO Date = 20th September 2020 and Stale period = 5; PO will be marked as Stale on 26th September 2020.

2. **Commodity Code:** Purchase order screens will now validate the commodity codes that are maintained by corporate or bank user.

10.2.7 Invoice Management

As part of this release, below enhancement are implemented on the Invoice Management.

- Invoice management screens will validate the commodity codes that are maintained by corporate or bank user.

- Limits can be booked or released for invoices on various transaction events like Assignment, Acceptance, Dispute, Payment etc.

10.2.8 Invoice Inquiry

As part of this release, below enhancements are implemented in the Invoice Inquiry screen:

- Two new invoice statuses as 'Assigned' and 'Approved'.
- User can select multiple invoice statuses to search.
- Historical statuses are displayed in the search result grid.

10.2.9 Inquiries

As part of this release, below inquiries have been enhanced to include additional Search Criteria and detailed information in results.

- Invoice Inquiry
- Accounting Inquiry
- Charges Inquiry
- Payments Inquiry

10.3 Interfaces

NA

10.4 Deprecated Functionality

NA

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10.5 Patches and Bugs

NA

10.6 Security Fixes

NA

10.7 Limitations and Open issues

Bug Id	Bug Description

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11. Components of the Software

11.1 Documents accompanying the software

The various documents accompanying the software are as follows:

- Release Notes

- Installer Kit

- User Manuals and Installation manuals

11.2 Software Components

Software Components of OBSCF 14.4 that form part of this release are as follows:

- Core

  - UI Components (Knockout, OJET, Lux)

  - The Swagger / YAML for the services supported

  - Configuration files for the services

  - Service Components

  - Tables, Sequences, Static Data

- Installation utilities

  - Installation documents for Database, UI, Web services

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12. Annexure – A: Environment Details

Oracle Banking Supply Chain Finance			
Application Server	Oracle Linux Server Release 7.6 (x86 64 Bit)	Java HotSpot (TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 241
		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 7.6 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	19.6.0.0.0
Document Management System	Oracle Linux Server Release 7.6 (x86 64 Bit)	Oracle WebCenter Content Imaging	12.2.1.4.0
Client Machines#		Internet Explorer	Microsoft Internet Explorer Release (11.*)
		Mozilla Firefox	Mozilla Firefox Release (66+)
		Google Chrome	Google Chrome Release (73+)
		Microsoft Edge	Microsoft Edge(44+)

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13. Annexure – B: Third Party Software Details

Sr. No.	Copyright Holder	Licensed Item ID	Licensed Item Name	Licensed Item Version	BA ID
1	Apache	53857	cglib	3.3.0	72478
2	The Netty Project	55278	netty	4.1.43	72519
3	Pivotal Software, Inc	55204	spring-security-oauth2	2.4.0.RELEASE	72869
4	JSON.org	56561	JSON-Java	20190722-6b6e8e8	72543
5	Eclipse Foundation	55751	EclipseLink JPA	2.7.5	72422
6	SmartBear Software	55645	Swagger	1.6.0	72172
7	Google	57118	tesseract	4.1.0	75331
8	FasterXML, LLC	55712	jackson-dataformats-binary	2.10.1	72349
9	Pivotal Software	55755	spring-boot-starter-hateoas	2.2.1	72428
10	Pivotal Software	55818	spring-boot-starter-jersey	2.2.1.RELEASE	72536
11	Pivotal Software	55819	spring-boot-starter-data-jpa	2.2.1.RELEASE	72537
12	Pivotal Software	55829	spring-cloud-starter-stream-kafka	3.0.0.RELEASE	72560
13	Pivotal Software	55830	spring-security-ldap	5.2.1.RELEASE	72561
14	Pivotal Software	55831	spring-boot-starter-security	2.2.1.RELEASE	72562
15	Quan Nguyen	57121	tess4j	4.3.1	75336
16	Pivotal Software	55780	Spring Cloud Config	2.2.0.RELEASE	72475
17	Pivotal Software	55822	spring-cloud-stream-schema	2.2.1.RELEASE	72544
18	Pivotal Software	55920	spring-boot-starter-batch	2.2.1.RELEASE	72738
19	The Apache Software Foundation	59709	Apache Camel	3.2.0	80997
20	Oracle	57812	Jakarta Mail	1.6.5	83350
21	The Apache Software Foundation	61806	OpenNLP-tools	1.9.3	85908
22	Pivotal Software, Inc	61528	Spring Security	5.3.4.RELEASE	86314
23	Pivotal Software, Inc	62001	Spring-Security-Oauth	2.5.0.RELEASE	86315
24	Google	58644	Guava	29	86442
25	The Apache Software Foundation	60358	Avro	1.10.0	86513
26	Boxfuse GmbH	61597	flyway-core	6.5.5	86517
27	FasterXML, LLC	62084	jackson-dataformat-xml	2.11.2	86518
28	FasterXML, LLC	61527	jackson-jaxrs-json-provider	2.11.2	86519
29	JSON.org	60616	JSON	20200518	86522
30	The Apache Software Foundation	57096	POI	4.1.2	86574
31	Apache Software Foundation	57695	Velocity Engine	2.2	86577
32	Eclipse Foundation	59202	EclipseLink	2.7.7	86580
33	jsonwebtoken.io	60118	jjwt	0.11.2	86581
34	SmartBear Software	60156	swagger-annotations	1.6.2	86668
35	Jonathan Halterman	59507	modelmapper	2.3.8	86669

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36	Zaxxer.com	59481	HikariCP	3.4.5	86719
37	Pivotal Software, Inc	61593	spring-cloud-stream-binder-kafka	3.0.8.RELEASE	86720
38	Pivotal Software, Inc	61216	Spring Boot	2.3.3.RELEASE	86910
39	Pivotal Software, Inc	61592	spring-cloud-stream	3.0.8.RELEASE	86999
40	QOS.ch	61711	log4j-over-slf4j	1.7.30	87045
41	The Apache Software Foundation	59221	FOP	2.5	87059
42	The Netty Project	62362	netty-codec-http	4.1.52.Final	87073
43	The Netty Project	62363	netty-transport-native-epoll	4.1.52.Final	87076
44	Pivotal Software, Inc	62387	Spring Cloud Sleuth	2.2.5.RELEASE	87147
45	The Apache Software Foundation	61192	Kafka	2.6.0	87153
46	The Apache Software Foundation	62389	ZooKeeper	3.6.2	87164
47	QOS.ch	55962	Simple Logging Facade for Java (SLF4J)	1.7.30	87236
48	Schibsted Marketplaces Products	59746	jslt	0.1.9	87399
49	Kalle Stenflo	59742	JsonPath	2.4.0-1ed1ea0	87401
50	Marco Ziccardi	35513	Node-TimSort	0.3.0	87530
51	JS Foundation and other contributors	58838	jQuery	3.5.1	87532
52	Stuart Knightley et. al	51994	JSZip	3.2.1	87533
53	Steven Sanderson	51996	Knockout.js	3.5.0	87534
54	Tim Wood, Iskren Chernev, Moment.js contributors	49010	Moment.js	2.24.0	87536
55	josdejong	51995	math.js	5.9.0	87537
56	Oracle	59032	JavaScript Extension Toolkit (JET)	8.3.0	87538
57	SmartBear Software	62548	swagger-parser	2.0.22	87550
58	FasterXML, LLC	62631	jackson-dataformat-cbor	2.11.2	87748
59	Apache Software Foundation	62632	camel-core	3.5.0	87752
60	Pivotal Software	62702	spring-cloud-config-client	2.2.5.RELEASE	87897
61	Pivotal Software	62705	spring-cloud-config-server	2.2.5.RELEASE	87899
62	Pivotal Software	62706	spring-cloud-starter-config	2.2.5.RELEASE	87900
63	Pivotal Software	62708	spring-cloud-netflix-core	2.2.5.RELEASE	87901
64	The Apache Software Foundation	62730	spring-cloud-starter-netflix-zuul	2.2.5.RELEASE	87944
65	The Apache Software Foundation	62732	spring-cloud-netflix-eureka-client	2.2.5.RELEASE	87947
66	The Apache Software Foundation	62727	spring-cloud-starter-netflix-eureka-client	2.2.5.RELEASE	87948
67	Apache Software Foundation	62793	camel-cxf	3.5.0	88107
68	Apache Software Foundation	62794	camel-resilience4j	3.5.0	88108
69	The Apache Software Foundation	62141	Commons IO	2.8.0	88241

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70	OpenJS Foundation	61260	lodash	4.17.20	88244
71	The Apache Software Foundation	56296	PDFBox	2.0.18	88373
72	Apache	49220	Commons FileUpload	1.4	88426
73	The Apache Software Foundation	62725	spring-cloud-starter-netflix-eureka-server	2.2.5.RELEASE	88488
74	Netflix	62968	Conductor	2.30.1	88494
75	The Apache Software Foundation	62973	spring-cloud-netflix-eureka-server	2.2.5.RELEASE	88509

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