

This document highlights the major changes for Release 18.0 of Oracle Retail XBR<sup>i</sup> Cloud Services.

## **Overview**

Oracle Retail XBR<sup>i</sup> Release 18.0 offers Business Intelligence (BI) reporting and analysis modules in the areas of Loss Prevention (LP) and Sales and Productivity (SP).

The XBR<sup>i</sup> LP module is the most widely used loss prevention and point of service (POS) data analysis tool. The LP module is an intuitive, intelligent and global analytical reporting solution that is designed to quickly identify suspicious trends, transactions, and other data anomalies. The LP module allows easy user access, dynamic functionality, and forensic analysis to make more-informed decisions with timely, data-driven answers to business questions and to protect the bottom line.

The XBR<sup>i</sup> SP module offers robust and highly configurable reporting across all levels of the retail organization hierarchy (Salesperson, Store, District, Region, and so on), merchandise hierarchy (item, class, dept., and so on), and/or by geographic attributes. Through a comprehensive set of grid and graph reports, documents and interactive dashboards, users can compare same store sales to past performance and custom goals, measure sales members' productivity, and evaluate the impact of merchandise characteristics on productivity.

Customers can purchase the Loss Prevention module separately, or have both modules bundled in the application.

## **Oracle Cloud Services and Business Agility**

Oracle Retail XBR<sup>i</sup> Cloud Services are hosted in the Oracle Cloud with the security features inherent to Oracle and a robust data center classification, providing significant uptime. The Oracle Cloud team is responsible for installing, monitoring, patching, and upgrading retail software. Included in the service are continuous technical support, access to software feature enhancements, hardware upgrades, and disaster recovery. The Cloud Service model helps to free customer IT resources from the need to perform these tasks, giving retailers greater business agility to respond to changing technologies and to perform more value-added tasks focused on business processes and innovation. Oracle Retail Software Cloud Service is acquired exclusively through a subscription service (SaaS) model. This shifts funding from a capital investment in software to an operational expense. Subscription-based pricing for retail applications offers flexibility and cost effectiveness.

## Supported Client Browsers and Mobile Devices

XBR<sup>i</sup> Release 18.0 is supported on the following browsers and mobile devices:

Browsers	Comments
Internet Explorer 11	Compatibility view is not supported
Safari (iPad)	Basic analyst functionality supported on iPad browser
Firefox	The latest version
Google Chrome	The latest version
Mobile Devices (Oracle XBRi)	Comments
Apple iPad	iOS8, iOS9, iOS10, iOS11

## Functional Enhancements

The following are functional enhancements for XBR<sup>i</sup> Release 18.0.

### Data Editor Enhancements

There is a new look and feel to the Data Editor UI, and functionality has been added to allow customers to perform configuration and other tasks that could previously only be performed by Oracle partners. The Data Editor is now only available to Administrator users. The new features are described below.

### New Tender Category for Managing Custom Tender Types

A new Tender Category Master table is available, and the Tender Category column has been added to the Tender Type Master in the Data Editor. Administrator users can now modify tender categories and tender types in the Data Editor.

### Configuring Max Threads and Exceptions for Controls

A new Data Editor table, LP Variables, lets Administrator users set the values for variables controlling the number of control point reports that can run simultaneously (CONTROL\_MAX\_THREADS), and the number of exceptions that can be generated by a control point report before a prompt is displayed asking if the user wants to see more exceptions (CONTROL\_MAX\_EXCEPTIONS).

### Custom Option to Manage or Activate the Ordering of Stored Procedures

The option to change the order of stored procedure processing for XStart, Batch, Real Time and End of Day has been added to a new table in the Data Editor called ETL Stored Procedure Ordering. Administrator users can select the Maintain action for ETL Stored Procedure Order, and modify the sequential order of the ETL Stored Procedures processed during ETL runs, as well as manage activation of the procedures. The Stored Procedure Ordering table will only be activated when the active flag is set for Y for the following custom settings: CUSTOM\_ETL\_XFINISH\_EOD, CUSTOM\_ETL\_XFINISH\_BATCH, CUSTOM\_ETL\_XFINISH\_REAL. These settings are available in the Data Editor System Variables Settings table.

### Configuration of Data Science Parameters

Administrator users can modify the default values of data science parameters using the new Science Parameters page in the Data Editor. These parameters are used in the

machine learning capability that is being introduced in this release. See the description under Technical Enhancements for “Identifying Cashier and Account Exceptions Using Machine Learning and Decision Trees” for more information. Two new dashboards are available to analyze data science findings. See the descriptions under New Dashboards for “High Risk Accounts” and High Risk Cashiers.”

### **Configuration of Statistics Tables Formulas**

Administrator users can now manage statistics formulas in the Statistics Formulas table in the Data Editor. This table corresponds to the PRO\_VIEW\_SYNTAX database table, which dictates the aggregation of data in records that are posted into the POS\_STATISTICS\_TAB database table.

### **Configuration of System Variables**

Many of the database stored procedures use the variables in the PRO\_SP\_VARIABLES table to determine how to load the data. It is important to set the variables correctly so the data in the database loads properly. Administrator users can now use the Data Editor – System Variable Settings option to manage these settings. An overview of the database variables is provided in the online help and in the *Oracle Retail XBR<sup>i</sup> Cloud Services Administration Guide*.

### **Data Editor Administration**

There is a new Data Editor Administration feature that lets Core XBR Administrators add, edit, and delete tables. This function is only available to the Oracle Cloud Implementation team. If you need to add, edit, or delete tables post-installation, make a request to My Oracle Support.

### **Custom Fields Available in the Metric Editor**

There are several different types of custom fields now available in the Metric Editor that you can use in creating metrics that extend the XBRi core data. For more information on creating metrics in XBRi, see the *Oracle Retail XBR<sup>i</sup> Cloud Services Web User Guide* or use the context sensitive help in the Metric Editor. The Metric Editor is accessed using the Create Metric icon in the tool bar in the Shared Reports or My Reports folders. The following custom fields are now available:

#### **Custom Amount and Count Fields**

There are 20 custom statistic fields available in the Metric Editor for aggregating different subsets of data by count and amount.

#### **Custom Header Attributes and Facts**

Custom Header attributes and facts are now available for creating metrics in the Metric Editor.

#### **Custom Detail Attributes and Facts**

Custom Detail attributes and facts are now available for creating metrics in the Metric Editor. The following custom core detail attributes and facts are provided:

(LDS, OTH, SKU,TAX,TDS, TND or PTC) CUSTOM CHAR *n*(1-10) – Use these for any attribute that does not require a lookup.

(LDS, OTH, SKU,TAX,TDS, TND or PTC) CUSTOM CODE *n*(1-10) – Use these for any attribute that has a lookup. (used in new installs only)

(LDS, OTH, SKU,TAX,TDS, TND or PTC) CUSTOM FLAG *n*(1-10) – Use these for any flag attributes with a N or Y value. (used in new installs only)

(LDS, OTH, SKU,TAX,TDS, TND or PTC) CUSTOM DATE *n*(1-3) – Use these for any custom date attribute.

(LDS, OTH, SKU,TAX,TDS, TND or PTC) CUSTOM NUM *n*(1-10) FACT - Use these only if the fact applies to only one POS\_\* table

## Data Requestor

The Data Requestor table has been added to the Data Editor to enable Administrator users to indicate which data requestors are being used. The Data Requestor corresponds to the pro\_requestor table, which is used by the pro\_clear\_stage procedure to determine if a particular batch can be cleared from staging during data processing. If a data requestor is tagged with N in the Data Editor - Data Requestor table, it will not be taken into consideration by the pro\_clear\_stage procedure. This is useful in identifying data requestors that are not being used, as when a customer has the Loss Prevention module only, and does not use Sales and Productivity (SPO) data requestors.

## Options to View Logs, Refresh iCubes, and Manage ODI Settings

The following options have been added to the Tools menu, moving these functions that were previously only accessible from the back office to the XBRi application:

- **Cube Refresh** – Administrator users can choose this option to see the full list of iCubes and the last updated date, size and status. You can choose the Refresh iCube command for a selected cube to update it. The Date Last Updated field will change to the time that you refreshed the cube.
- **Log Viewer** - A new front end UI has been added to XBRi Web so that Administrator users can easily view or download important logging information for troubleshooting and analysis. The application logs made available include ODI batch processing, XBRLoader processing and four output logs to the database. The list of logs include:

Archived Imports - archived imported files in xbr-loader queue/archive

Failed Imports - processed imported files that failed in xbr-loader

ODI API Logs

ODI Currency Master Logs

ODI Current Event Log

ODI Customer Master Logs

ODI DTV Status – Overall DTV status log

ODI Emp Master Logs

ODI Goal Logs

ODI Hours Worked Logs

ODI Inventory Logs

ODI Output Archive

ODI Prior Event Log

ODI Register Master Logs

ODI SKU Master Logs

ODI Staging Logs

- ODI Store Master Logs
- ODI Supplier Master Logs
- ODI TLOGA Logs
- ODI TLOGB Logs
- ODI Token Master Logs
- ODI Traffic Logs
- Pending Queued Imports - pending imported files in xbr-loader/queue
- Pending Staged Imports - pending imported files in xbr-loader/out
- Successful Imports - successful files processed in xbr-loader
- XBRI Database
  - PRO\_BATCH\_CONTROL (ETL Server) – Logs showing batches processed
  - PRO\_EVENTLOG (ETL Server) – Logs showing procedure statuses or errors
  - PRO\_SYS\_PURGELOG (ETL Server) - Logs showing historical purges
  - SCI\_MSG\_LOG\_VIEW (ETL Server) – Logs showing overnight science model execution status
- **ODI Settings** – This option lets Administrator users stop, start, and restart ETL-ODI processes on demand, from within the application. Administrator users can also create modified load plans using the Download and Replace options.

## **New Dashboards**

### **High Risk Accounts**

This dashboard lets you analyze data science results for accounts that fall outside normal risk parameters. You can sort the data by Risk Date, LP District, Model Prediction, and Account Watch Status. Results are categorized by Refund Summary, Voids Summary, and Discount Summary.

### **High Risk Cashiers**

This dashboard lets you analyze data science results for cashiers that fall outside normal risk parameters. You can sort the data by Risk Date, LP District, Model Prediction, and Cashier Watch Status. Results are categorized by Refund Summary, Voids Summary, and Discount Summary.

## **New Reports**

### **High Risk Account Summary**

This report lists the accounts that were flagged by the Science extended functionality looking for anomalies in the summarized activity that occurred.

### **High Risk Cashier Summary**

This report lists the cashiers that were flagged by the Science extended functionality looking for anomalies in the summarized activity that occurred.

## **Security Patches**

Any identified security risk areas have been addressed through these updates.

## Technical Enhancements

### Identifying Cashier and Account Exceptions Using Machine Learning and Decision Trees

This version of XBRI introduces the use of unsupervised machine-learning algorithms to detect anomalies based on models of normal activity by Customer Accounts and Cashiers. Unsupervised means that the machine-learning algorithm does not require feedback from users as to which cases were truly fraudulent.

This will enhance, not replace, the rules-based fraud detection used in XBRI, by detecting anomalies that have not yet been discovered.

The Oracle Advanced Analytics (OAA) Support Vector Machine (SVM) 1-class SVM algorithm is being used to provide this unsupervised approach.

### Known Issues/Defects

The noteworthy issues and defects described below exist in this release.

Known Issue/Defect	Defect Number (Bug DB)
Some of the fields are shifting into the wrong column in the POS Header Admin report.	29180645
The Data Editor link on the HOME page is not redirected to the new Data Editor.	29683202
The Advanced Formatting option is not available when you run a report and click the Format drop-down menu or right click on a metric to format. Workaround: The User Preference for Grid display is set incorrectly. In the application go to: Admin -> User Preference -> Grid display, then Grid Style selection. Select "Use the format stored in the report definition" instead of "Use my selected default grid style."	30766588

### Resolved Issues/Defects

The noteworthy issues and defects described below have been fixed in this release.

Resolved Issue/Defect	Defect Number (Bug DB)
The report 'Employees Processing Own Transactions' would not return data if the employee number was not the same as the cashier number. The report has been modified and the report returns data if the two do not match. The formulas in pro view syntax EMP_OWN_TRANS_COUNT, EMP_OWN_TRANS_AMOUNT, EMP_OWN_TRANS_DISC_AMOUNT were also updated to reflect this change	27055502
The currency rate procedure was running too early during batch processing and has been moved to update after statistics have been run.	27732487

There was an issue where duplicate records in MST_EMPLOYEE_TMP prevented the procedure SP_MST_UPD_EMP to complete successfully due to primary key violations upon insert or update into MST_EMPLOYEE_TAB. The sp_mst_upd_emp has been modified to fix this issue.	28257030
Customers could not create a user report that contained a user group. A new view was added to correct this problem..	28081994

## Related Documentation

For more information, see the following documents in the Oracle Retail XBR<sup>i</sup> Cloud Services 18.0 documentation set:

- Data Recall/Erase API Guide
- Implementation Guide
- Administration Guide
- API Interface Guide
- Web User Guide
- Administrator User Guide

These documents can be accessed at the [Oracle Retail XBR<sup>i</sup> Documentation Library on Oracle Technical Network \(OTN\)](#)

## Supplemental Documentation on My Oracle Support

The following documents are available through My Oracle Support.

Core Field Mapping Guide (My Oracle Support Doc ID: [2079594.1](#))

Data Science Operational Guide (My Oracle Support Doc ID: [2079594.1](#))

Data Science Configuration Guide (My Oracle Support Doc ID: [2079594.1](#))

## Supplemental Training

The following documents are available through My Oracle Support. Access My Oracle Support at the following URL:

<https://support.oracle.com>

## Transfer of Information (TOI) Material (Doc ID 732026.1)

For applicable products, online training is available to Oracle supported customers. These online courses provide release-specific product knowledge that enables your functional and technical teams to plan, implement and/or upgrade and support Oracle Retail applications effectively and efficiently.

## Oracle Retail Learning Subscriptions at Oracle University

The Oracle Retail Learning Subscription is a digital training solution for anyone on your team seeking training on Oracle Retail Products. With the learning subscription you get the key elements of an effective learning program and the conveniences of a digital format, making this training unmatched in the industry.

You get modern learning at its best, such as:

- 12 months of 24/7 access to a comprehensive set of high quality videos delivered by Oracle experts.
- Detailed coverage and step-by-step demonstrations.
- Periodic updates for new features and product enhancements.
- Flexibility to search, access and learn about specific topics of interest.

The learning subscription enables current users to continually refresh and upgrade their product skills. It also enables new employees with a self-paced learning guide to help them quickly become proficient on Oracle Retail Products.

For training opportunities, see the following web site:

<http://www.oracle.com/education>

## Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible to all users, including users that are disabled. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

### Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

### Accessibility of Links to External Web Sites in Documentation

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

### Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.



2018, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

#### **Value-Added Reseller (VAR) Language**

##### **Oracle Retail VAR Applications**

The following restrictions and provisions only apply to the programs referred to in this section and licensed to you. You acknowledge that the programs may contain third party software (VAR applications) licensed to Oracle. Depending upon your product and its version number, the VAR applications may include:

- (i) The **MicroStrategy** Components developed and licensed by MicroStrategy Services Corporation (MicroStrategy) of McLean, Virginia to Oracle and imbedded in the MicroStrategy for Oracle Retail Data Warehouse and MicroStrategy for Oracle Retail Planning & Optimization applications.
- (ii) The **Wavelink** component developed and licensed by Wavelink Corporation (Wavelink) of Kirkland, Washington, to Oracle and imbedded in Oracle Retail Mobile Store Inventory Management.
- (iii) The software component known as **Access Via™** licensed by Access via of Seattle, Washington, and imbedded in Oracle Retail Signs and Oracle Retail Labels and Tags.
- (iv) The software component known as **Adobe Flex™** licensed by Adobe Systems Incorporated of San Jose, California, and imbedded in Oracle Retail Promotion Planning & Optimization application.

You acknowledge and confirm that Oracle grants you use of only the object code of the VAR Applications. Oracle will not deliver source code to the VAR Applications to you. Notwithstanding any other term or condition of the agreement and this ordering document, you shall not cause or permit alteration of any VAR Applications. For purposes of this section, "alteration" refers to all alterations, translations, upgrades, enhancements, customizations or modifications of all or any portion of the VAR Applications including all reconfigurations, reassembly or reverse assembly, re-engineering or reverse engineering and recompilations or reverse compilations of the VAR Applications or any derivatives of the VAR Applications. You acknowledge that it shall be a breach of the agreement to utilize the relationship, and/or confidential information of the VAR Applications for purposes of competitive discovery.

The VAR Applications contain trade secrets of Oracle and Oracle's licensors and Customer shall not attempt, cause, or permit the alteration, decompilation, reverse engineering, disassembly or other reduction of the VAR Applications to a human perceivable form. Oracle reserves the right to replace, with functional equivalent software, any of the VAR Applications in future releases of the applicable program.