Know Your Customer Administration Guide

Release 8.0.2.0.0 February 2016





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Release 8.0.2.0.0 February 2016

Part Number: E71274-01

Oracle Financial Services Software, Inc. 1900 Oracle Way Reston, VA 20190

Part Number: E71274-01 First Edition (February 2016)

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Oracle Financial Services Software, Inc. 1900 Oracle Way Reston, VA 20190 *Phone:* (703)478-9000 *Fax:* (703)318-6340 *Internet:* www.oracle.com/financialservices

Contents

List of Figuresix		
List of Tables		xi
About This Guid	le	xiii
Who Should Use this	Guide	xiii
How this Guide is Or	ganized	xiii
Where to Find More	8 Information	xiv
Conventions Used in	this Guide	xiv
CHAPTER 1	KYC Architecture Overview	1
About Oracle KYC A	vrchitecture	
OFSAAI Architecture	e	
Deployment View		4
CHAPTER 2	KYC Operations	5
Application Overview	V.	
KYC Modules		
User Review		
Pre-requisites		
Operations		
Initial / One time	e Activities	
Daily Activities		
Periodic Maintenance Activities		
Initial / One-time Activities		
Managing Users		
Uploading excels		
Configuring Application Parameters1		
Configuring Application Installation Parameters1		
Configuring Rule Based Risk Parameters1		
Defining the Re-Review Risk Thresholds		
Configuring Algorithm Based Risk Parameters		
Defining Score for Values in KYC Risk Assessment		
Setting up Document Guidelines		
E-Funds / Factiv	a Specific - Pre-requisites	
Setting up KYC I	Setting up KYC Real-Time Service Request	
Scheduling KYC Batches		
Listing Holidays in the OFSAAI Administration User Interface		

Contents

Deployment Initiation Processing Based on the Implementation Requirement	16
Daily Activities	17
Real-Time Account On-Boarding Risk Assessment	17
Regular Processing -Account Opening Review	17
Regular Processing- Accelerated Review	17
Regular Processing - Re-Review / Periodic	17
Feedback/Application EOD Processing	
Periodic Maintenance	
Clearing Staging Tables Log Tables and Log Files	
Listing of Holidays	
KYC Purging Utility	19
KYC Specific Terminology	19
Customers	19
Catch-All Bucket	19
Auto Closure	20
Lookback Period	20
Real Time Account On-Boarding Review	20
Process Flow - Request and Response - Web Service	20
Stage 1 - Acknowledgement Processing & RAOR Calculation - Pass 1	21
KYC Request Acknowledgement	21
Stage 2 - Third-Party Information Collection	22
Stage 3 - RAOR Calculation - Pass 2	22
Stage 4 - Send Acknowledgement	22
Regular Processing	22
Accelerated Re-Review Reasons	23
Customer Identification	24
Risk Assessment Creation	24
KYC Master Customer and Master Account Table Maintenance	24
Copy Snapshot	
Registration Information Flag and Request for Latest Information	25
Watch List Scanning	
Document Verification	
ID Verification	
Negative News Search	
Risk Assessment Initiation	
KUIE-DASEA KISK ASSESSITIETII	20 لا لا
Algonulli-baseu RISK Assessillelli	/ ۲ 97
Promoto to Case	۵7
Prolitice to Case	۵2 د
Deployment mitiation - 1 rocessing	20 20
Nish Assessifietili Disk Modele	2ð იი
NISK IVIOUEIS Catch_All Ruckat in Dimansion Tahlas	2028 20
Dynamic Weight Calculation	29 99
End of Day Processing	20 90

Feedback to the	e Oracle Financial Services Behavior Detection Framework / Account Openi	ng System29
UDS Feedbal Watch List I	(K Entry Faadhack	
Customer - Risk Assessment Details Customer - Risk Assessment History Incrementing the Processing Date Renaming and Transferring Feedback files		
		32 32
Utility for Purgi	ing	
Purging Risk	Assessment Related Tables	
CHAPTER 3	Views	35
CHAPTER 4	Functions, Stored Procedures, and Packages	
APPENDIX A	KYC Batches	39
Regular Processing.		
Deployment-Initiati	on-Processing	
End of Day Process	sing	49
APPENDIX B	Excel Upload Templates	51
Excel Upload Temp	lates	51
APPENDIX C	Configurability	55
Application Related	Configuration	55
OFSAAI Related Co	onfiguration	
Application Configu	Iration Using OFSAAI Configurability	59
APPENDIX D	Extraction Definition	61
Extraction		61
APPENDIX E	Configuring Batches and Runs	63
Saving Runs		63
Scheduling a Batch.		
Creating Batche	2S	65
Running a Singl	e Task Using a Batch	67
Scheduling a Ba	itch Once	68
Scheduling a Da	aily Batch	69
Scheduling a We	eekly Batch	70
Scheduling a M	onthly Batch	70
Monitoring a Ba	atch After Execution	71
Cancelling a Ba	tch After Execution	72

APPENDIX F	KYC Batch Execution Logs	75
Table 2 Table (T2T))	
File 2 Table (F2T)		
Transform Data (D	ata transformation or DT logs)	
Table 2 File (Extrac	tion of Data)	
Run Rule (PR2 rule - Update Rule)		
Promote to C	Case	
APPENDIX G	Adding New Paramater	
Overview		
Rule Based Risł	Rating process	
Algorithm Base	ed Risk Processing	

List of Figures

Figure 1. OFSAAI Architecture	1
Figure 2. OFSAAI Solution Architecture	2
Figure 3. Communication Links and Protocols	3
Figure 4. OFSAAI Components - Deployment Option A	4
Figure 5. OFSAAI Components - Deployment Option B	4
Figure 6. Know Your Customer Overview	6
Figure 7. Review Process - Real Time Account On-boarding	7
Figure 8. Review Process - New/Existing Accounts	8
Figure 9. Regular Processing	9
Figure 10. Re-Review Workflow	10
Figure 11. Data Integrator Process Flow	56
Figure 12. Mart Builder Process Flow	57
Figure 13. Elements of OFSAAI Configurability	58
Figure 14. Data Mapping screen	61
Figure 15. Extract Properties	62
Figure 16. Run screen	63
Figure 17. Run Rule Framework dialog box	64
Figure 18. Batch Maintenance Page	66
Figure 19. Add Batch Definition page	66
Figure 20. Running a Single Task Using a Batch	67
Figure 21. Scheduling a Batch Once	68
Figure 22. Scheduling a Daily Batch	69
Figure 23. Scheduling a Weekly Batch	70
Figure 24. Scheduling a Monthly Batch	71
Figure 25. Batch Monitor Page	72
Figure 26. Batch Cancellation Page	73

List of Figures

List of Tables

Table 1. Conventions Used in this Guide	xiv
Table 2. Scheduling Batches	16
Table 3. CBS Feedback	
Table 4. Watch List Feedback	
Table 5. Risk Assessment Details	31
Table 6. Views	35
Table 7. Functions/Stored Procedures and Packages	
Table 8: Regular Processing	
Table 9: Deployment-Initiation-Processing	45
Table 10: End of Day Processing	49
Table 11: List of Excel Upload Templates	51
Table 12. New Batch Details	66
Table 13: Table 2 Table (T2T)	75
Table 14: File 2 Table (F2T)	76
Table 15: Shell script Transform data	77
Table 16: Table 2 File (Extraction of Data)	77
Table 17: Run Rule (PR2 rule - Update Rule)	78

List of Tables

About This Guide

This guide provides comprehensive instructions for proper system administration, and the daily operations and maintenance of the OFS KYC. The logical architecture provides details of the KYC process for a better understanding of the pre-configured application, which allows you to make site-specific enhancements using OFSAAI. This chapter contains the following topics:

- Who Should Use this Guide
- How this Guide is Organized
- Where to Find More Information
- Conventions Used in this Guide

Who Should Use this Guide

The *Oracle Financial Services KYC Administration Guide is* designed for Oracle Financial Services Installers and System Administrators. Their roles and responsibilities, as they operate within the Oracle Financial Services KYC, include the following:

- **Oracle Financial Services KYC Installer:** Installs and configures the Oracle Financial Services KYC at a specific deployment site. The Oracle Financial Services KYC Installer also handles customer specific enhancements or changes and accesses information about deployment-specific configuration (for example, machine names, port numbers, and business metadata).
- **System Administrator:** Configures, maintains, and adjusts the system and is usually an employee of a specific Oracle Financial Services customer. The System Administrator maintains user accounts and roles, monitors data ingestion and case management, archives data, loads data feeds, and performs post-processing tasks.

How this Guide is Organized

The Oracle Financial Services KYC Administration Guide includes the following chapters:

- Chapter 1, *KYC Architecture Overview* provides a brief overview of the Oracle Financial Services KYC architecture and operations.
- Chapter 2, KYC Operations, details the Application Operations of the KYC.
- Chapter 3, Views, details the Oracle database view definitions to process risk assessment requests.
- Chapter 4, *Functions, Stored Procedures, and Packages,* details the functions and stored procedure definitions to process risk assessment requests.
- Appendix A, *KYC Batches*, covers the KYC Batch and the tasks within the batches.
- Appendix B, *Excel Upload Templates*, describes the templates used by the Excel Upload feature.
- Appendix C, *Configurability*, describes how to configure the Oracle Financial Services KYC.
- Appendix D, *Extraction Definition*, describes the delimiters used to extract.

- Appendix E, *Configuring Batches and Runs*, describes how to scendule and save runs and batches.
- Appendix F, *KYC Batch Execution Logs*, provides the information of where log files are created for each type of task in the Oracle Financial Services KYC.

Where to Find More Information

For more information about Oracle Financial Services KYC, refer to the following documents:

- Enterprise Case Management User Guide.
- KYC Risk Assessment Guide
- Configuration Guide
- Installation Guide
- Services Guide

These documents can be found at the following link:

http://docs.oracle.com/cd/E60570_01/homepage.htm

To find additional information about how Oracle Financial Services solves real business problems, see our website at <u>www.oracle.com/financialservices</u>.

Conventions Used in this Guide

Table 1 lists the conventions used in this guide.

Table 1. Conventions Used in this	Guide
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Convention	Meaning
Italics	Names of books, chapters, and sections as references
	Emphasis
Bold	 Object of an action (menu names, field names, options, button names) in a step-by-step procedure
	 Commands typed at a prompt
	User input
Monospace	Directories and subdirectories
	File names and extensions
	Process names
	 Code sample, including keywords and variables within text and as separate paragraphs, and user-defined pro- gram elements within text
<variable></variable>	Substitute input value

CHAPTER 1

KYC Architecture Overview

This section provides a brief overview of the Oracle Financial Services KYC architecture and operations. This chapter focuses on the following topics:

- About Oracle KYC Architecture
- OFSAAI Architecture
- Deployment View

About Oracle KYC Architecture

Oracle Financial Services Know Your Customer is built on the OFSAAI Platform. You can think of architecture as a blueprint of parts that fit together to define a system. For example, structure, interface and communication mechanisms function as architecture. Functional views can also describe the architecture. The following views illustrate the implementation details of the Oracle KYC architecture:

- OFSAAI View: Illustrates system components and their dependencies.
- Deployment View: Illustrates the deployment of components to processing nodes.

OFSAAI Architecture

The following figure illustrates the subsystems composing the OFSAAI architecture. These subsystems are used for application development and maintenance.



Figure 1. OFSAAI Architecture

OFSAAI provides the framework for building applications, such as KYC. The deployment of multiple solutions and applications can occur on a single OFSAAI installation. Each adds domain-specific content to provide the required services for addressing a specific business problem. OFSAAI includes reusable metadata artifacts and data structures. It also provides the required presentation packages and custom application objects for supporting the user interface functionality.



Figure 2. OFSAAI Solution Architecture

The following figure shows the primary communications links and protocols used between processing nodes.



Figure 3. Communication Links and Protocols

Deployment View

The following figure illustrates the OFSAAI components when deployed on a single computer or when distributed across multiple computers:



Figure 4. OFSAAI Components - Deployment Option A



Figure 5. OFSAAI Components - Deployment Option B

CHAPTER 2 KYC Operations

This chapter discusses the following topics:

- Application Overview
- KYC Modules
- User Review
- Pre-requisites
- Operations
- Initial / One-time Activities
- Daily Activities
- Periodic Maintenance
- KYC Specific Terminology
- Real Time Account On-Boarding Review
- Regular Processing
- Risk Models
- End of Day Processing

Application Overview

Know Your Customer assesses the risk a customer poses to the bank or financial institution. It is not a one-time assessment, but is a continuous process of assessing customers. Customers are assessed in different stages of their relationship with the bank. The different stages of the relationship are described in the following sections:

- Deployment Initiation
- Real Time Account on Boarding
- Account on Boarding / Default Review
- Re-review



Figure 6. Know Your Customer Overview

The Oracle KYC risk assessment application is built using the OFSAAI framework. The application functions are divided into the following areas:

- Reference Data Management (Internal and External)
- On-line interface with account opening system
- Risk Assessment Engine
- Interface with Third Party Services
- System Maintenance

KYC Modules

The following figure illustrates a High Level flow for the Real Time Review Process which occurs when an account is opened.



Figure 7. Review Process - Real Time Account On-boarding

The workflow steps may differ based on the type of review (default or re-review), but the Risk Assessment process is the same.

The following figure illustrates a high-level flow for default review and re-review processes which may occur on new or existing acccounts:



Figure 8. Review Process - New/Existing Accounts

The following figure illustrates a high-level flow for the default review workflow.



Figure 9. Regular Processing

The following figure illustrates a high-level flow for the re-review workflow:



Figure 10. Re-Review Workflow

User Review

Risk assessments, which are created by executing these workflows, are categorized into Open Risk Assessments and Closed Risk Assessments once risk assessment process is complete.

Open risk assessments are promoted to cases in Oracle Financial Services Enterprise Case Management. Users can review these cases from the Oracle Financial Services Enterprise Case Management UI.

Risk Assessments which are not promoted to case are auto-closed and the information is retained in the KYC system.

Once the KYC case review is complete (Case Closure), feedback is sent to the Account Opening System and the Oracle Financial Services Alert Management system.

Case Closure is triggered through one of the following types of investigations defined in KYC:

• System Investigation (Auto Closure)

• User Investigation (Closed by the compliance user)

KYC assesses risk using the following processes:

- Real Time Account On-Boarding Risk: Risk assessment process at the time of account opening.
- **Deployment Initiation Workflow**: Risk assessment process for existing customers (One-time start-up activity) based on Jurisdiction, Customer Type and Length of Relationship.
- **Default Review**: Risk assessment of the newly opened account's owner.
- **Re-Review**: Periodic Review/Accelerated Review: Risk assessment of the customer. This process is based on Oracle Financial Services Behavior Detection Framework Alerts/Change in information.
- **User Review**: Risk assessment process (for both Existing and New customers) based on the case Risk Category.

Pre-requisites

The following pre-requisite activities must be completed before OFS KYC configuration and maintenance begins:

- Installation of OFSAAI using the OFSAAI Installer and OFSAAI Installation Manual
- OFSAAI Servers Start-up
- OFS KYC Pre-Installation Activities
- Completion of OFS KYC Installation
- OFS KYC Post-Installation Activities

Operations

Oracle Financial Services KYC operations are classified intdo the following types:

- Initial / One time Activities
- Daily Activities
- Periodic Maintenance Activities

Initial / One time Activities

- Managing Users
- Uploading excels
- Configuring Application Parameters
- Configuring Application Installation Parameters
- Configuring Rule Based Risk Parameters
- Configuring Algorithm Based Risk Parameters
- Defining the Re-Review Risk Thresholds
- Defining Score for Values in KYC Risk Assessment
- Setting up Document Guidelines
- E-Funds / Factiva Specific Pre-requisites
- Setting up KYC Real-Time Service Request
- Scheduling KYC Batches
- Listing Holidays in the OFSAAI Administration User Interface.
- Deployment Initiation Processing Based on the Implementation Requirement

Daily Activities

- Real-Time Account On-Boarding Risk Assessment
- Regular Processing -Account Opening Review
- Regular Processing- Accelerated Review
- Regular Processing Re-Review / Periodic)
- Feedback/Application EOD Processing

Periodic Maintenance Activities

- Clearing Staging Tables Log Tables and Log Files
- Listing of Holidays
- KYC Purging Utility

Initial / One-time Activities

The following sections describe the Initial/One-time Activities.

Managing Users

The KYC Administrator user must be created for KYC related processing.

For more information on how to create users, refer to the *Oracle Financial Services Advanced Analytical Applications* Infrastructure Application Pack Installation and Configuration Guide.

Uploading excels

The Excel upload process inserts the data into the appropriate dimension tables based on the pre-configured Excel upload definitions installed as part of the application installation. The Excel upload process will fail if there are primary key violations at the time of upload.

When uploading additional parameter values and associated risks, only the incremental records should be maintained in the Excel template with the correct unique identifier key.

The data in the Excel templates may refer to the data directly and the codes that are used to reference the data in a different dimension table. Referring to the incorrect reference code will lead to an unsuccessful upload process.

While populating data into Dim_Jurisdiction table through the Excel Upload activity, note that jurisdiction D is to be retained. D(Default) code is to be retained as it contains Default values which is required for risk processing if the data is not provided.

Note:

- In order to enable or disable accelerated re-review rules, the admin can modify the value of the column F_ENABLE in the excel sheet vw_APPLN_REREVIEW_PARAMS to Y or N respectively. Then the admin can proceed with the excel upload process.
- Jurisdiction codes in KYC 2.0 should match with jurisdiction codes in kdd jurisdiction table in alert management schema.

Data should be uploaded into the tables in the order mentioned in Appendix "Excel Upload Templates,".

Configuring Application Parameters

Initially, the default values for the application parameters are to be populated into the database (DB) during Excel upload. The parameter values can be modified in the Excel data files before the upload process is done. This can be fine tuned through the User Interface provided by logging into the system as the KYC Administrator. The entries in the Application Parameters (Appln_Params) are used to control the flow of the application. These parameters are Jurisdiction-specific and must be populated for each jurisdiction in the Vw_Appln_Params table.

The values of these parameters will have an impact on the various services invoked by the solution, and the work flow of the solution. Multiple entries can be made for each parameter, one for each jurisdiction. It is mandatory that one set of parameters is present in the Application Parameters for the Jurisdiction *DEFAULT* which is pre-packaged and installed as part of application installation. For more information on how to navigate the UI and populate values for all jurisdictions, refer to the *Configuration Guide*.

Configuring Application Installation Parameters

The values for the Application Installation Parameters are to be populated into the DB during Excel upload. The parameter values can be modified in the Excel data files before the upload process is complete, or can be fine tuned through the UI by the KYC Administrator.

The Application Installation Parameters contain information about installation specific parameters which do not vary with the jurisdiction. This table has only one set of parameters for a particular installation. For more information, refer to the *Configuration Guide*.

Configuring Rule Based Risk Parameters

The default values for the Rule Based Risk Assessment Parameters are populated into the DB during Excel upload. Parameters and Values for the *DEFAULT* jurisdiction are provided in the Excel data file. The parameters are predefined and new parameters cannot be added. However, new values can be added for the parameters in the Excel data files before the upload process is complete, or new values can be added and modified from the UI.

Rule Based Risk Assessment Parameters contains information about the values for parameters which are pre-defined and the values for the parameters can vary according to the jurisdiction. It is mandatory to update rules values for all the jurisdictions for which Rule Based Risk Assessment is used.

Defining the Re-Review Risk Thresholds

Default values for the Re-Review Parameters are included as a part of the Excel upload. This section describes the Application Re-Review Parameters (Appln_ReReview_Params and Vw_ Appln_ReReview_Params).

The OFS KYC comes with pre-packaged rules based on which the Accelerated Re-Review is triggered. These rules are available in the Application Re-Review Parameters Table (Appln_ReReview_Params). All these 13 rules should be updated for each jurisdiction in the Vw_ Appln_ReReview_Params table. Each record contains a rule number with which it is associated in the Re-Review Processing Batch. Each rule can be enabled or disabled depending on the site-specific requirement. This table specifies details such as Look Back Period, Count of Alerts, and Alert Score for the Rule.

For more information, refer to the Configuration Guide.

Configuring Algorithm Based Risk Parameters

Default weights for each parameter of the Model-Based Risk Assessment Parameters are populated into the Appln_Risk_Rating_Params table in the DB during Excel upload. It is mandatory that one set of parameters is present in the Vw_Appln_Risk_Rating_Params table for the Jurisdiction *DEFAULT*, which is pre-packaged and installed as part of application installation.

The Appln_Risk_Rating_Params has 62 entries by default. The Risk Model Code and Risk Parameter Code columns indicate the model and purpose of each parameter. The Appln_Risk_Rating_Params table maintains the weight for each of the Risk Models/Risk Parameters.

Multiple entries can be made for each parameter, one for each jurisdiction, to support multiple jurisdictions in a single installation. Jurisdiction-specific parameters are available in the Vw_Appln_Risk_Rating_Params table. It is mandatory that all parameters are populated in the Vw_Appln_Risk_Rating_Params table for each jurisdiction specified in the Dim_Jurisdiction table. The pre-configured values can be fine tuned to suit the site specific requirements in the Excel data files before the Excel upload or modifying the parameter values after the Excel upload process by the KYC Administrator. For more information, refer to the *Configuration Guide*.

Defining Score for Values in KYC Risk Assessment

Risk values related to risk parameters are maintained in individual dimension tables. Data is populated into the dimension tables through the Excel upload to ensure successful execution of KYC batches. The data and risk scores must be fine tuned to suit implementation-specific needs.

Risk scores related to the static data in the respective dimension tables are used in risk score calculation. The Excel templates contain pre-configured risk parameter values and associated risk scores. These risk parameters can be fine-tuned in the Excel data files before the data is uploaded or the value can be changed by the KYC Administrator. For more information, refer to the *Configuration Guide*.

Refer to *Excel Upload Templates* for more information about the upload sequence. These Excel templates are available in the following area:

/ftpshare/STAGE/Excelupload/ KYCLookupTables>> in the ficapp layer.

Setting up Document Guidelines

The internal document verification process occurs before the external identity verification is triggered to collect data for the risk assessment process. The guidelines for verification should be set up as a start-up activity.

The guidelines must be entered in the Excel template available at

/ftpshare/STAGE/ExcelUpload/KYCLookupTables/ FCT_DOCS_GUIDELINES.XLS in the ficapp layer.

Upload the details through the Excel upload activity.

E-Funds / Factiva Specific - Pre-requisites

Oracle Financial Services Know Your Customer is integrated with external third party services for enhanced due diligence. KYC is also integrated with E-Funds for Identity Verification. The KYC Administrator can update the required configuration for identity verification from the UI.

KYC is integrated with Factiva for Negative News Search. The KYC Administrator can update the required configuration for identity verification from the UI.

For more information, refer to the *Configuration Guide*.

Setting up KYC Real-Time Service Request

KYC has a feature called Real-Time Account On-Boarding Risk (RAOR). This captures the details of a customer and interested parties during the time of account opening and calculates the risk of that customer.

Update the KYC_XSD_LOC parameter in the APPLN_INSTALL_PARAMS table through the Configuration option. This parameter specifies the path of XSD files which are required for the application.

Scheduling KYC Batches

The batches will not be visible in the Batch execution screen after the KYC installation is complete.

After the installation is complete, the user should login to the OFS KYC as the KYC Administrator and perform the steps mentioned in *Configuring Batches and Runs*.

Table 2. Scheduling Batches

Criteria	Remarks
Timing of Execution of KYC batches	The KYC batches should be executed only after Oracle Financial Services Alert Management System has completed the day's ingestion and alert generation process. This ensures that the KYC will have the latest customer/account and alert information available for Risk Assessment reference. All the processing batches are EOD processing. The default review execution should be scheduled as an EOD activity.
Sequence of Execution of KYC batches	 The Processing of batch should follow the sequence: Deployment Initiation Processing - For processing the Existing customers
	 EOD Processing (Feedback Processing) - For processing after the entire DI processing batch is complete
	 Regular Processing - For daily processing.
	The feedback processing creates feeds for the account opening system and Oracle Financial Services Alert Management system. Care should be taken to ensure that the feeds are scheduled as part of the data ingestion process in the account opening system and Oracle Financial Services Behavior Detection Platform. Note: Run Mantas Daily batch before executing Deployment Initiation and End of Day processing batches.

Listing Holidays in the OFSAAI Administration User Interface

Use the OFSAAI Administration UI (Administration>Security Management>System Administrator >Holiday Maintenance) to setup and maintain the holiday list for the financial institution.

Deployment Initiation Processing Based on the Implementation Requirement

After installing KYC, the existing customers are to be risk assessed and processed through KYC for which Deployment Initiation is required. The Deployment Initiation Process helps the financial institution process the risk assessment of an existing customer once as a start-up process and mark them for periodic review based on the CER score.

Deployment Initiation Processing can be done in a single slot or can be executed in multiple slots (for example, Number of Customers to be processed) for managing the performance due to volume. The pre-requisite for triggering the process execution involves setting up the KYC related parameters correctly using the application parameter configuration UI.

Refer to *Deployment-Initiation-Processing* for more information about the tasks within the Deployment Initiation processing batch.

Daily Activities

Before starting the daily processing activities, the processing date must be verified in the system using the Application Parameters screen under the KYC Administration option in the UI for the parameter KYC_PROCESSING_DATE. For more information, refer to the *Enterprise Case Management User Guide*.

Real-Time Account On-Boarding Risk Assessment

Processing the online request from the Account On-Boarding system assists in the account opening process. The Real Time Account On-Boarding Risk Assessment (RAOR) workflow is triggered by the request from the external account opening system. This returns a risk score to the external account opening system. The request and response is sent as a Web Service Request.

Regular Processing -Account Opening Review

Data for the Account Opening Review System is picked from the ECM application database.

All the accounts which were opened the previous x days and are in *Active* status will be picked for risk assessment. The accounts which were opened in the last 7 days and activated the previous day will also be selected. The look back period is set to 7 days by default, but the value can be modified based on the requirement. The Account Range for Regular Processing parameter can be modified from the Application Parameters UI screen under the KYC Administration option by the KYC Administrator. For more information, refer to the *Enterprise Case Management User Guide*.

Regular Processing- Accelerated Review

Accelerated Review depends on the alerts generated by the Oracle Financial Services Alert Management system at EOD or due to changes in customer and account information. The Accelerated Review Processing is executed, along with Default /Account Opening review, after the Oracle Financial Services Behavior Detection Framework alert generation is complete.

Accelerated Re-Review has eight rules. Each of these rules checks for deviation from the standard for the customer. A case is initiated against the concerned customers if obtained values exceed the specified thresholds. The threshold values are stored in the Appln_ReReview_Params table under the following columns:

- Look back period
- Count of Alerts
- Alert Score
- Count of Changes

If the threshold is breached, a reason will be created in the Re-Review Case Reasons table (Fct_Rereview_ Ra_Reasons) for the creation of a risk assessment.

Regular Processing - Re-Review / Periodic

After every review (Account Opening Review / Deployment Initiation / Accelerated Review), the next review date is set for the customer based on the risk assessed. Thus, customers are periodically subjected to Risk Assessment, which is essential as the risk associated with each customer may change over time.

After a case is closed, the customer's next review date is determined by adding the time period (specified for the current risk category of the case) to the processing date in line with the holiday list definition.

Re-Review Processing checks whether the Next Re-Review Date in the Master Customer table matches the processing date.

A Risk Assessment is created for customers whose next review date matches with the current day's processing date. This batch is executed once every day.

Feedback/Application EOD Processing

During the execution of the regular processing batches, the risk scores at customer levels are sent to the Oracle Financial Services Alert Management system and the account opening system. The feedback batch achieves this goal by consolidating customers and their risk scores on whom the risk assessment was created, analyzed, and closed for the processing date.

The application also creates a KYC watch list feed for the Oracle Financial Services Alert Management system for the customers whose review is completed.

In addition, the second-level application staging tables maintained are cleared as part of the application EOD processing.

Periodic Maintenance

This topic covers the following sections:

- Clearing Staging Tables Log Tables and Log Files
- Listing of Holidays
- KYC Purging Utility

Clearing Staging Tables Log Tables and Log Files

Staging tables are populated during the Real Time Account On-boarding risk assessment process. The data must be cleared periodically for better DB space management. This facility is not pre-configured and is done as an implementation activity based on the implementation-specific requirements. For information on where the logs are created, refer to *KYC Batch Execution Logs*, on page 75.

Log tables can be cleared on a regular basis or as-needed by the client. The directory containing the log files should also be cleared on a regular basis.

Listing of Holidays

The bank is expected to update the list of holidays to the master Holiday List table.

To update the holiday list, follow these steps:

- 1. In the LHS menu of OFSAAI, select the KYC Infodom from the Connected to drop-down list.
- 2. Navigate to Administration > Security Management. The OFSAA Infrastructure Administration page displays.
- 3. In the LHS menu of Administration, navigate to System Administrator > Holiday Maintenance. The Holiday Maintenance page displays.

- 4. Click the Add icon. The New Holiday pop-up window displays.
- 5. In the New Holiday pop-up window, click the calender icon and select a date.
- 6. Click Save. The Holiday List updates and the selected date displays in the list.

To delete a holiday, follow these steps:

- 1. In the Holiday Maintenance page, select a date from the Holiday List.
- 2. Click the **Delete** icon. A message *Do you want to delete the holidays* displays.
- 3. Click **OK**. A message Holidays deleted successfully displays.
- 4. Click OK. The updated Holiday List displays.

The holiday list should be same in both Behavior Detection Framework and KYC. The list of holidays should contain the weekly holidays as well as the annual holidays. Entries should be made well before the end of the calendar year, since this list is used by OFS KYC to arrive at the Next Re-Review Date.

KYC Purging Utility

KYC data structures are populated through the workflows, such as Default Review, Accelerated Review, Re-Review Processing, Deployment Initiation Processing, Feedback Processing, and so on. Over a period of time, this data volume will grow and the application administrator should purge data from the production systems after the necessary archival process is completed.

This utility helps the application administrator purge the data from the Staging, Risk Assessment and Log tables.

KYC Specific Terminology

This topic covers the following sections:

- Customers
- Catch-All Bucket
- Auto Closure
- Lookback Period

Customers

For more information, refer to the KYC Risk Assessment Guide.

Catch-All Bucket

In each of the Dimension tables, an additional entry is specified whose key is maintained as -999. This entry is also referred to as the catch-all bucket. If the customer provides data for a corresponding risk score that is non-existent in the Dimension tables, then the risk score of the catch-all bucket is used in the risk assessment process. By default, the risk score of the catch-all bucket is maintained at the highest value to denote a high-risk potential.

Auto Closure

Auto-Closure is based on the following criteria:

- The User Review Flag of the risk category to which the risk score belongs should be set to N.
- The difference between the present risk score and previous risk score should be less than the value specified in the parameter KYC_CHG_IN_CUST_RSK_TOLERANCE.

The Auto Closure process consists of the following steps:

- 1. In the Watch List Result table, update the High Risk Watch List Flag of the Case, if any such entry exists.
- 2. Update the risk scores and risk category into the Customer Master Table for the risk assessed customer.
- 3. Update the risk assessment ID from which the risk scores have been updated into the Customer Master table.
- 4. Determine the Next Re-Review date for the customer based on the risk category.
- 5. The risk assessments that are not auto-closed are promoted to case for further investigation.

Lookback Period

During Accelerated Re-Review processing for certain rules, the lookback period is specified. The lookback period is the time period within which the OFS KYC can consider the alerts in the Alert table (KDD_REVIEW in the Mantas schema).

For example, if the lookback period is set to 90 days for a rule, then during execution, the solution will look back up to 90 days to determine the list of alerts and to generate risk assessment reasons.

Real Time Account On-Boarding Review

The Real Time Account On-Boarding Risk Assessment (RAOR) workflow is triggered by a request from an external account opening system. The request format should be a Web Service Request.

Process Flow - Request and Response - Web Service

A third-party account service calls KYC Service on account opening and waits for a response. Each Real Time Request contains only the account opening information for one account per request. If the customer opens a savings and a checking account, the account opening system should send two requests to KYC for RAOR processing: one for the savings account and one for the checking account. A single request will not contain more than one customer's account opening details per request. Interested party definitions defined for the request will only be used for RAOR calculations.

The request generates the Request ID from the Sequence. The request ID and real time customer ID and account ID are stored in variables. This information is required to process the specific request through the following stages:

- Stage 1 Acknowledgement Processing and RAOR Calculation Pass 1
- Stage 2 Third-Party Information Collection
- Stage 3 RAOR Calculation Pass 2
- Stage 4 Send Acknowledgement

Stage 1 - Acknowledgement Processing & RAOR Calculation - Pass 1

The following steps should be handled in Task 1.

- Initial Check
- Existing Customer Real Time Customer Risk Assessment Processing

These registers the request and the Request ID, Customer ID and Account ID, which are the factors that uniquely identify the request. The requested XML is parsed and data is inserted along with the Request ID in respective Staging tables. Data is dumped into the following staging tables:

- Fct_Customers_Stg
- Fct_Cust_Addresses_Stg
- Fct_Cust_Phones_Stg
- Fct_Cust_Relationships_Stg
- Fct_Accounts_Stg
- Fct_Acct_Cust_Roles_Stg
- Fct_Cust_Country_Stg
- Fct_Cust_Source_Wlth_Dtls_Stg
- Fct_Markets_Served_Stg
- Fct_Products_Served_Stg

KYC Request Acknowledgement

Acknowledgement details should be stored in the DB for communicating the acknowledgement to the external third-party account opening system.

- A negative acknowledgement with error information is sent if any of the following situations is encountered:
 - If the user name or password is incorrect.
 - If mandatory information is missing.
 - If a request contains an account with different Primary Customer Definitions (Check against the Acknowledgement table).

In the above situation, there is no need for an error code or error message. The Flag(s) will be interpreted by the account opening system.

This checking is done on the data available in the staging tables for a specific Request ID and Customer Number. Other information is optional. Lack of availability will lead to dynamic weight calculation in risk assessment or non-availability in the UI display.

The system records the acknowledgement details in the FCT_REQUEST_ACK_DTLS table and also records the request in CUSTRVWDTLS and ACCTRVWDTLS tables if the customer is not an existing customer.

In the RAOR Pass 1 calculation, if the customer is an existing customer, the system performs the risk assessment calculation based on the Customer Type. For existing customers, RAOR PASS2 is skipped.

- Legal Entity: Updates the acknowledgement with CER and CER Category.
- Correspondent Bank: Updates the acknowledgement with CER and CER Category.
- **Individual:** Finds all joint customers defined in the request. If all of them are existing, then finds the max CER and updates the acknowledgement with CER and CER Category. Related updates are made in the Risk Assessment Summary and Risk Assessment Reasons tables.

Stage 2 - Third-Party Information Collection

IDV and Watch Lists are initiated for the customer and the interested parties defined in the request.

IDV is triggered only when the Doc Verification Flag is N or Null for the customer and interested parties and only when there is no prior result available in the IDV results table. WLS will be triggered for the customer and interested parties for every request even if the customer is opening more than one account on the same processing day. Interested Parties of the customer definition in the context of RAOR processing:

- Legal Entity: Controlling
- Correspondent Bank: Controlling
- Individual: Only the New Joint Account Holders

Stage 3 - RAOR Calculation - Pass 2

If the RAOR Calculation is incomplete (customer is a new customer), then ROAR Risk Assessment is done based on the customer type. The related information is updated in the Risk Assessment Summary, Risk Assessment Reasons, Customer Review and Account Review tables.

Stage 4 - Send Acknowledgement

The system creates the return acknowledgement XML and returns to the Account On-Boarding System.

Regular Processing

The Default Account Review workflow should be triggered upon request from the following external account opening system:

The batch is split into the following sections:

- Accelerated Re-Review Reasons
- Customer Identification
 - New Customer Identification
 - Identifying the customers whose status are cleared from Hold
 - Identifying the customers based on accelarated re-review rules
 - Identifying the customers based on re-review date
- Risk Assessment Creation Primary, Guardian/Joint Account Holders
- Master Customer and Account Table Maintenance
- Copy Snapshot From Oracle Financial Services Behavior Detection Framework Bus Schema for all the risk assessments created
- Registration Information Flag and Request for Latest Information
- Watch List Scanning (Request / Response)
- Document Verification
- ID Verification (Request / Response)
- Negative News Search (Request / Response Including the Documents)
- Risk Assessment Initiation
 - Rule-based Risk Assessment
 - Algorithm-based Risk Assessment
- Closure Updates
- Promote to Case
- Customer Risk Assessment History population

OFS KYC requires an online/batch interface to facilitate Watch List Scanning, Identity Verification, News Searches and so on for the successful execution of the default review

The Account Opening Review is executed at the end of the day and the results are computed.

There are two ways to execute the batch for Account Opening

- Regular Processing on daily basis (Combined batch with Re-Review)
- Weekly Processing on weekly basis(Combined batch with Re-Review)

Accelerated Re-Review Reasons

There are 13 accelerated re-review rules that refer to the tables in Alert Management/ Business schema. These rules generate reasons which ultimately result in creation of risk assessments.

Accelerated Re-Review processing refers to generation of risk assessments based on alerts created by Oracle Financial Services Alert Management system. Periodic Re-Review processing refers to risk assessment of the customers already risk assessed after a gap of specified time period.

An Accelerated KYC Review is triggered based on behaviors detected in the Oracle Financial Services Behavior Detection Framework. Oracle Financial Services Behavior Detection Framework alert data is used to create a KYC risk assessment due to re-reviews rules. Re-Review rules processing is a batch activity. The batch is scheduled after the Oracle Financial Services Behavior Detection Framework alert generation and processing event. The Customer / Account Details will be referred from the Business schema and Alert details will be referred from the Alert Management schema. Re-review rules are part of the Regular Batch.

Customer Identification

A risk assessment is created for every customer who has an account in the bank. The KYC solution identifies the customers who need to be processed for the creation of the Risk assessment as per the following conditions:

- Customer should be an active customer
- Customer should have at least one account mapped to him
- The account mapped to the customer should be an active account
- Customer should be having a controlling role on the account mapped to him

Interested parties are calculated for the customers who are identified for the Risk assessment creation and are stored in the KYC system.

Risk Assessment Creation

Risk Assessments are generated for the primary account holder's, joint account holders and guardians of the accounts for whom a positive acknowledgement has been generated. Each Risk Assessment is identified by the Risk Assessment reference associated with it. A Risk Assessment reference is generated by appending the customer ID to the word 'CASE' and then appending the processing date (In YYYYMMDD format) to the result. This ensures that each risk assessment is unique. Only one Risk Assessment is generated on a customer per day (If the parameter- RA Periodicity is configured as one in Vw_Appln_Params table).

Risk Assessment Periodicity is another parameter considered while generating Risk Assessments. The value associated with this parameter defines the minimum duration between two Risk Assessments on the same customer. Risk Assessment Periodicity can be fine-tuned further using the configurable parameter, depending on the implementation needs.

Refer to the parameter KYC_CASE_PERIODICITY_IN_DAYS in *Application Configuration Using OFSAAI Configurability* for more information.

KYC Master Customer and Master Account Table Maintenance

When a new account is opened or a new customer joins the bank, in case of positive acknowledgement, a record is made in the respective KYC Master Customer and Account tables. The tables contain information related to previous and present risk calculation of the customer/account.

Copy Snapshot

After Risk Assessment creation, the KYC solution copies customer and account data as on Risk Assessment creation date into a new set of tables with each record tagged to the Risk assessment to which it belongs. The data is fetched from the business schema (ECM).

Registration Information Flag and Request for Latest Information

If the time period between the processing date and the last updated date of the customer's information is greater than the value specified in the application parameter Minimum Verification Time Period (KYC_MIN_VERF_TIME_PERIOD), then the risk assessment status is changed to HOLD. Subsequently, the Registration Information updation required Flag is set to Y in Fct_ra table. The risk assessments which are in HOLD status will be visible only to the user who is mapped to the Relationship manager role. When the relationship manager verifies the customer information and updates the risk assessments assigned to him as 'Verified - Entity Info is Recent' in the UI it will set the Registration Information updation required Flag back to N. Meaning the customer's information is updated and new set of data relevant to the risk assessment can be picked up from the Business schema. If the Relationship Manager verifies the customer information as 'Verified - No change required' it will set the Registration Information is retained and used for further processing.

Note: The system assumes that the information has been updated in the source system.

Watch List Scanning

The risk assessed customers and interested parties are checked against a list of closely monitored individuals and entities by carrying out a Watch List scan. This is done to identify the existing and prospective customers whose names have already been put up on the Watch List. The OFAC result and score obtained as a part of Identity Verification are also used for Watch List Scanning. Currently, the solution has been configured to interact with the Oracle Financial Services Behavior Detection Framework Watch List. The third-party service can also be modified to allow the solution to interact with any other Watch List as well. The application parameter Third Party Watch List Scan (KYC_TP_WL_SCN) is a part of the Watch List rule. This allows the customer to disable the rule if scanning is not desired.

Document Verification

After Risk assessment generation, the documents supplied by the risk assessed customer are verified to confirm the customer's identity. A list of documents is provided in Document Guidelines Table (Fct_Docs_Guidelines), along with the level to which they belong. A customer's identity is considered confirmed only if the required number of documents of desired level is provided. The number and level of the document can be configured by modifying the content of the parameter KYC_DOC_VERF_REQD in the Vw_Appn_Params table.

ID Verification

The customer type provided by the external Account opening system should match with the customer type provided in the KYC solution. If there is a mismatch in the customer type then risk assessment will not be created on the particular customer and risk assessment will not take place for that customer.

If the customer has not provided sufficient documents, the result of document verification is negative. Thus, to determine the identity of the customer, an external ID Verification is triggered. External Identity verification is triggered only when the internal system based document verification process is unsuccessful and there is no prior external identity verification done. Identity verification, when initiated, is done for the customer and customer's interested parties.

By default, the KYC solution is configured to available services of eFunds IDV search to confirm the customer's identity. The solution can be modified to interact with other service providers to carry out ID verification.

ID Verification can be switched on / off, in the KYC solution by altering the values of the parameter KYC_IDV_DEFAULT_SCORE. This parameter also provides the default score, for those customers for whom no IDV score was obtained.

Negative News Search

For all the risk assessments that have been created on the same day and are still in initiated status, the negative news search is initiated against the risk assessed customer and interested parties.

Currently, the KYC solution has been configured to interact with Factiva, a Negative News Search service provider. At the time of implementation, the Negative News Search service provider can be changed to any other entity. The application parameter KYC_TP_NN_SCN is used during Negative News Search. This parameter contains all the details necessary to access the Factiva Web site. The (OFSAAI -Oracle Financial Services KYC solution is pre-configured to interact with Factiva for Negative News Search).

Risk Assessment Initiation

Based on the reasons generated in the previous module, risk assessments are created for the corresponding customers. The type of risk assessment source is specified as *Accelerated Re-Review*.

Then the next Re-Review Date for each customer is compared to the day's processing date. If the two match, then a risk assessment is created for the customer with the risk assessment source specified as *Periodic Re-Review*.

Rule-based Risk Assessment

Rule-based assessment calculates a CER score based on client configurable rules. Rule-based assessment model is executed only if it is chosen by the bank or FI for an installation. This option can be decided using the Rule-based assessment parameter available in the jurisdiction-specific Application Parameters table. For more information about the Rule-based assessment model parameters, refer to the *Configuration Guide*.

Rule-based assessment model supports a business process framework, which allows the bank or FI to provide different values for the pre-defined rules. Once a customer is assessed using the Rule-based Assessment Model, they will not be assessed further using the Algorithm-based Assessment Model.

For Rule-based assessment, the values for each rule are provided to the system through the KYC Configuration Rule Based Assessment Model User Interface by the Admin user. For more information about providing values for rule-based assessment, refer to the *Configuration Guide*. The bank or the FI can provide as many values as required for a rule.

A customer can fall under one or more rules during rule-based assessment. When a customer has been matched to multiple rules, the system considers the maximum score of the matched rules.

For example, a customer has matched the Country of Citizenship and Country of Residence rules, with the values being Afghanistan and India, with a score of 45 and 60 respectively. In this case, the system considers the CER as 60 for the customer. It also captures and display all the rules matched.

All risk assessments created using this work flow will be automatically promoted to a case irrespective of the CER score. This overrides the ranges defined in the Risk Category table User Review flag as *Y*.

Algorithm-based Risk Assessment

Customers who are not assessed using the Rule-based Assessment Model are assessed using Algorithm-based Assessment Model.

Algorithm-based Assessment Model calculates the risk of customers based on different parameters which are based on customer type.

For each parameter the system checks the value provided by the customer who is being risk assessed, and retrieves the score of that value from the respective static Jurisdiction table. If the value provided by the customer for a parameter is not available, then the system considers it as Others which would have a corresponding score in the static jurisdiction table. If the customer has not provided any value for a parameter then the system would go in for Dynamic weight to distribute the weight of this parameter across other parameters.

CER Score = Sum (value of the risk assessment parameter * weight)/100

Closure Updates

After Risk Assessment, some risk assessments are eligible for Auto-Closure based on the following criteria:

- The User Review Flag of the risk category to which the risk score belongs should be set to N.
- The High Risk Watch List Flag of the Risk assessment should be set to N.
- The difference between the present risk score and previous risk score should be less than the value specified in the parameter KYC_CHG_IN_CUST_RSK_TOLERANCE.

For all the risk assessments that satisfy the above set of conditions, the records of the risk assessed customers in the KYC Master Customer Table (Fct_Cust_Rvwdtls), is updated with all the parameters pertaining to the risk score calculation. Subsequently, the records of all the accounts associated with the risk assessed customer are also updated with the risk scores. The threshold values for Auto-Closure can be altered by changing the value of the Application parameter mentioned above.

Promote to Case

During Risk Assessment Promotion to Case, there are possibilities of few risk assessments not being promoted to case which can be because of non-availability of data, system issues, server problems etc.

The error for the Risk Assessment not being promoted to a case will be captured in the table RA_TO_CASE_ERROR. This table will be available in the KYC Atomic schema. The user should be able to identify the cause of the error and resolve the same. Once the error is rectified, these Risk Assessments will be promoted to a case during the next KYC batch processing.

Deployment Initiation - Processing

This batch is to be executed only once at the time the KYC solution goes live. All the sections listed under this batch are part of the Re-Review Processing Batch also. The batch is split into the following sections:

- Customer Identification for Risk Assessment
- Tagging data to the cases
- Watch List scanning
- Risk Assessment
- Auto Closure
- Promote to Case
- Customer Risk Assessment History population

Refer to the similar sections in Re-Review Processing for description of each of the sections. Risk assessment process for the existing customers is done based on the following:

- **Jurisdiction**: Oracle Financial Services clients can process the deployment workflow based on specific jurisdiction.
- **Customer Type**: Oracle Financial Services clients can also process the data based on customer type.
- **Length of Relationship**: Oracle Financial Services clients can also process the data based on length of relationship of the customer and this is configurable.

Note: All the above criteria for processing can be done separately or by combining them.

Refer to the KYC_DEPLOYMNT_INIT_WF parameter under the application parameter.

Risk Assessment

For KYC Risk calculation, the following are required:

- Risk Assessment Models, Risk Assessment Model Parameters and their appropriate weights.
- For Every Risk Parameter, Possible Values and their Risk Score
- Customer Attributes for each of these risk parameters

This module represents the computational engine of the OFS KYC.

Risk Models

KYC risk models are of the following types:

- RAOR
- Rule Based
- Algorithm Based

For more details, refer to KYC Risk Assessment Guide.

Catch-All Bucket in Dimension Tables

If the data provided in the fact tables does not match with any of the values in the dimension table, then the score associated with the default value specified in the dimension table is utilized. This default entry is identified by the name *Others* or the key '-999'.

Dynamic Weight Calculation

The overall weight of all the parameters is always equal to 100. During the Risk score calculation, the data provided for the customer is compared with the static data in the mapping jurisdiction tables and the relevant risk score is used. There are three possible scenarios as described below that can be encountered during the calculations:

- Data is available, but the equivalent entry is non-existent in the dimension mapping jurisdiction table. Here the default risk score stored in the 'Others' category is used for the calculation.
- Data is available and an equivalent entry is present in the dimension mapping jurisdiction table. The appropriate risk score is used in the calculation.
- Data is not available. As a result the risk score cannot be identified. As a result, dynamic weight calculation is used, to calculate the correct risk score.

Since the weight for a valid parameter is less than 100, the risk assessment engine increases the weight and the related risk scores that the newly calculated weight equals 100. This ensures that at the time of the risk assessment, the over-all weight for the valid parameters is always 100 and the risk score is proportionately incremented.

For more information, refer to the KYC Risk Assessment Guide.

End of Day Processing

This topic covers the following sections.

Feedback to the Oracle Financial Services Behavior Detection Framework / Account Opening System

At the end of each day, risk scores for risk assessments that are auto-closed or closed by the compliance officer after investigation are sent to Oracle Financial Services Behavior Detection Framework and the Account Opening System through Feedback files. Watch List files and Feedback files to the Account Opening System are available after KYC End of Day (EOD) processing is complete. These files must then be scheduled for loading into Oracle Financial Services Behavior Detection Framework and the Account Opening System. The processing date will be the date of KYC EOD Processing. The following files will be available:

- CBS Feedback (incremental dump of processing day for Oracle Financial Services Alert Management system)
- Watch List Entry Feedback (full dump as of processing day)
- Customer Risk Assessment Details (Incremental dump as of processing day for the Account Opening System) The delimiter for the extract file can be defined under Unified Metadata Data Integrator. Refer to the Appendix C, "Extraction Definition,".

CBS Feedback

This file contains the Customer ID and the risk score computed by the risk assessment engine. The file name is obtained by appending the processing date to GenCustDetails_ED. The Feedback Flag will update in the FCT_CUST_RVWDTLS table. KYC will not send Customer Feedback unless the Business schema is present. This file will be sent in the batch which runs in the subsequent days.

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SL No.	Business Name	Data Type
1	Risk Assessment ID	String
2	Customer ID	String
3	Customer Name	String
4	Customer Effective Risk Score	Number
5	Risk Assessment Closed Date	Date
6	Next Re-review Date	Date

Watch List Entry Feedback

The Watch List is generated for closed cases and where closure is recommended for the Account. The records populated in the Watch List results table for a processing date are dumped into this file. The file name is obtained by appending the processing date to GenWLSFeedback_ED.

Table 4. Watch List Feedback

SL No.	Business Name	Data Type
1	Entity Identifier Type	String
2	Entity Identifier	String
3	Watch List Identifier(Referred from Application parameter KYC_WLS_ENTRY_FILE_ID)	String
4	Watch List Entry Description Text	String

Customer - Risk Assessment Details

This file contains the Customer ID and the Risk assessment details computed by the risk assessment engine. The file name is obtained by appending the processing date to GenCustDetails_ED. This file is created for the Oracle Financial Services Behavior Detection Framework and placed in the path defined by the Configuring Customer

Feedback Files parameter in the Application Parameter UI. A schedule must be created to load this file in the Customer Supplemental Attribute table of the Behavior Detection Framework System. The data provided in this file is used for calculating the Entity Risk of a customer, where the KYC Risk is one component of Entity Risk. The file contains the KYC risk score provided when a risk assessment is closed by the System or closed by the investigation officer on every processing date.

SL No.	Business Name	Data Type
1	Customer ID	String
2	Customer Effective Risk Score	Number
3	Custom1Date	String
4	Custom2Date	String
5	Custom3Date	String
6	Custom1Real	String
7	Custom2Real	String
8	Custom3Real	String
9	Custom1Text	String
10	Custom2Text	String
11	Custom3Text	String
12	Custom4Text	String
13	Custom5Text	String
14	Source System	String

Table 5. Risk Assessment Details

Customer - Risk Assessment History

The KYC solution captures the history of all the risk assessments created on all the customers within a period of 12 months and would retain for x period of months. 12 months is configured by default, the administrator can update this parameter based on the client requirement. The value can be updated from the UI for the 'V_ATTRIBUTE1_VALUE' for the 'KYC_RISK_ASSESSMENT_HISTORY' parameter of the Application Install Parameters. A partition will be created on the table based on the value which is updated.

Incrementing the Processing Date

The KYC solution refers to the Application Parameter KYC_PROCESSING_DATE to pick up the date. At the end of each day, this date is set to the next working date.

Renaming and Transferring Feedback files

When a KYC review for a new account request is complete, KYC informs the Account On-Boarding System about the disposition of the review. At the disposition of a periodic or accelerated KYC review, the KYC system communicates the results of the review to the appropriate banking system used within the financial institution, such as an Account Management System. The parameters required for renaming and transferring feedback files should be configured in the appln_install_params.

The Oracle Financial Services KYC system is also responsible for sharing Account, Customer, and Watch List feedback to the Oracle Financial Services Alert Management system and Oracle Flexcube system at the disposition of the KYC review.

The extract names are not compatible with the Oracle Financial Services Behavior Detection Framework file naming convention. This utility will complete the following activities based on the configurations set for the implementation:

- 1. Moves the files to the different location in the same server.
- 2. Renames the files with the extension defined.
- 3. Maintain a copy of the extract in the history directory with its original name.
- 4. The utility covers the following extracts in KYC 2.0:
- GenCustDetails_ED<YYYYMMDD>
- GenWLSFeedback_ED<YYYYMMDD>

Utility for Periodic Review-Customer distribution

This utility distributes fixed number of customers into different Next Re-Review Dates so that huge number of Cases are not processed in Periodic Re-Review in a single day. This task is tagged in the EOD batch and to be executed after successful execution of deployment initiation batch.

The following parameters must be set for execution of the utility through the batch execution screen:

- Number of Customers per day.
- Number of days from when the customers need to be distributed.

These parameters must be set before running this utility.

Utility for Purging

KYC data structures are populated through Default Review Processing, Accelerated Review Processing, Re-Review Processing and Deployment Initiation Processing. Over a period of time, this data volume will grow and the application Administrator will need to purge data from the production systems after archiving.

This utility helps the application Administrator to purge data from the Risk Assessment tables based on the purge requirement.

Archival is not done by this utility. Required backup and archiving of the database and tables must be done outside this utility.

The utility will take *number of days* as input for the retention period for the Auto-closed risk assessments and the *number of days* as input for the retention period of the UI closed risk assessments. The administrator should update a whole number in the V_ATTRIBUTE2_VALUE and V_ATTRIBUTE5_VALUE respectively in the VW_APPLN_PARAMS table for the KYC_PURGE_ARCHIVE_PARAMTERS parameter.

The utility will also take the range of the CER score as another input during the purging of the risk assessments. The Administrator can update the minimum and maximum range of the CER score in the 'V_ATTRIBUTE3_VALUE' and 'V_ATTRIBUTE4_VALUE' columns of the VW_APPLN_PARAMS table for the KYC_PURGE_ARCHIVE_PARAMTERS' parameter.

Purge utility is defined as a data transformation in OFSAAI and it is a part of the EOD processing and the Regular Processing batches. The Purging of the Risk assessments can be done based on Jurisdiction also. *ALL* is configured by default as the jurisdiction parameter, the risk assessments related to all the jurisdictions will be purged by default. In order to purge only risk assessments related to a particular jurisdiction, the Administrator must update the specific jurisdiction code in the 'V_ATTRIBUTE1_VALUE' of the VW_APPLN_PARAMS table for the KYC_PURGE_ARCHIVE_PARAMTERS parameter.

Purging Risk Assessment Related Tables

Accept the number of days for the retention period and the risk range as parameter.

Delete the dependent records first and then the required records.

Delete data from the following tables that are older than the given date in the order specified below:

- 1. FCT_REREVIEW_RA_REASONS
- 2. FCT_RA_CUSTOMERS
- 3. FCT_RA_ACCOUNTS
- 4. FCT_RA_ACCT_CUST_ROLES
- 5. FCT_RA_CUST_RELATIONSHIPS
- 6. FCT_RA_CUST_ADDRESSES
- 7. FCT_RA_CUST_COUNTRY
- 8. FCT_RA_CUST_CITIZNSHPS
- 9. FCT_RA_MARKETS_SERVED
- 10. FCT_RA_PRODUCTS_OFFERED
- 11. FCT_RA_CUST_PHONES
- 12. FCT_RA_CUST_SRC_WEALTH_DTLS
- 13. FCT_RA_DOC_VERF_DTLS
- 14. FCT_RA_ACTIONS
- 15. FCT_TP_IDV_REQUESTS
- 16. FCT_TP_WLS_REQUESTS
- 17. FCT_TP_WLS_RESULTS
- 18. FCT_TP_NNS_REQUESTS
- 19. FCT_TP_NNS_RESULTS
- 20. FCT_RA_RISK_RATING_SUMMARY
- 21. FCT_TP_RISK_RATING_DETAILS

22. FCT_RA_RISK_RATING_REASONS

23. FCT_RA

CHAPTER 3 VIEWS

Know Your Customer uses many Oracle database view definitions to process risk assessments. The following table provides a high-level description of the views:

Table 6. Views

View	Description
VW_DOCS_VERF_CUST_LIST	This view identifies the list of customers who are eligible for Mandatory Document Verification.
VW_IDV_REQUESTS	This view provides the consolidated list of customers for whom third- party ID verification should be initiated.
USRGPMAP	This view is used to show the mapping data of user and user group.
CSSMS_HOLIDAY_LIST	This view fetches the Holidays which the bank administrator has entered.
FCT_CUST_ACCT_DOCS	This view is created on the CUST_ID_DOC table of the Business schema. The view will display the type of documents each customer has provided during the account opening process.
VW_BUS_LATEST_ACCT	This view gets the date of the latest account of a customer.

Chapter 3–Views

CHAPTER 4

Functions, Stored Procedures, and Packages

Know Your Customer uses many Oracle functions and stored procedure definitions to process the risk assessment request received.

The following table describes these functions and procedures.

Table 7. Functions/Stored Procedures and Packages

Function/Stored Procedure/Package	Description
Fn_Working_Days	This function ensures that the selected next Re-Review date is a working date. If the calculated Re-Review date is a holiday, the customer will not be eligible for Periodic Re-Review processing. The next Re-Review date must be computed at the time of Auto-Closure.
FN_REREVIEW_DATE	This function is used to identify the periodic review date for Deployment Initiation customers by splitting the customer base into equal slices per day starting from the number of days defined in the attribute
FN_REGISTRATION_CHECK_DRR	This function checks for all the risk assessments where the difference between the processing date and the date when the risk assessed customer's records were last updated. If this date is greater than the threshold value specified in the Registration Task Minimum Period application parameter (KYC_CASE_REG_TASK_MIN_PRD), then the Registration Information Update Required Flag is set to Y and the RA status is set to HOLD.
FN_RB_PROCESSING	This function ensures that all the risk assessments eligible for Rule Base Processing are processed through the Rule based processing engine.
FN_RA_TO_CASE	This function will promote all the risk assessments from the KYC system when the CER score is beyond the limit defined to cases in the ECM system.
fn_ra_purge	This function will delete the data used for arriving at the risk score of all the closed risk assessments from various tables based on the parameters provided.
FN_PRCNG_TMP_WITH_IP_DR	This function will identify the Interested parties of the customers identified for risk assessment during the Regular processing batch.
FN_PRCNG_TMP_WITH_IP_DI	This function will identify the Interested parties of the customers identified for risk assessment during the Deployment initiation processing batch.
FN_PRCNG_ACT_DATA_LOAD	This function will load the data from the RA processing tables to the actual RA tables after the risk assessment process is complete.
FN_PARTITION_MAINTENANCE	This function will create and maintain the partition created on the FCT_CUST_RA_HISTRY table.
FN_LOG_MSG	This function is used to load the messages into the APPLN_LOG_MSGS table during the execution of the functions / procedures / packages.
FN_INCPRCDATEBYONE	This function will increment the KYC processing date by one day and keep the system ready for the next batch.

Function/Stored Procedure/Package	Description
fn_get_case_owner	This function is used to identify the owner to whom the case must assigned during the Promote to case activity.
FN_DEL_DATA_FRM_PRCNG	This function will delete the data from the KYC processing table before the actual KYC batch processing is carried out.
FN_CUST_RA_HISTORY	This function will load the data of all the risk assessments created on all the customers on that particular day into the FCT_CUST_RA_HISTRY table.
FN_CLOSUREUPD_RALASTDATE	This function will update the last risk assessment date for all the risk assessments during the algorithm based risk assessment process.
FN_CLOSUREUPD_RACERSCORE	This function will update the CER score for all the risk assessments during the algorithm based risk assessment process.
FN_CLOSUREUPD_RACERPRIORITY	This function will update the priority for all the risk assessments during the algorithm based risk assessment process based on the CER score of the risk assessment.
FN_CLOSUREUPD_RACERCTGRYSCO RE	This function will update the risk category based on the CER score for all the risk assessments during the algorithm based risk assessment process.
FN_CLOSURE_UPDATES	This function does the Closure Updation for the risk assessments for all the workflows.
FN_CCRCALC_UPDWTRSKSCORE	This function will update the Dynamic weighted risk score for all the risk assessments during the algorithm based risk assessment process.
FN_CCRCALC_UPDRSKSCORE	This function will update the Dynamic risk score for all the risk assessments during the algorithm based risk assessment process.
FN_CCRCALC_UPDDYNWT	This function will update the Dynamic weight for all the risk assessments during the algorithm based risk assessment process.
RISKRATINGROAR	This package is used for Real Time On-boarding Risk Assessment.

APPENDIX A KYC Batches

This appendix covers the KYC Batch and the tasks within the batches. This chapter discusses the following topics:

- Regular Processing
- Deployment-Initiation-Processing
- End of Day Processing

Regular Processing

The following table provides details about regular processing:

	Rule Name			
Task No	(As configured)	Description	Component Id	Precedence
Task1	FN_DEL_DATA_FRM_P RCNG	TRANS- FORM DATA	Truncate the data from KYC pro- cessing tables	Task1
Task2	RvwSuspCust_RR	LOAD DATA	Reasons based on alerts gener- ated in Oracle Financial Services Behavior Detection Framework	Task2
Task3	RvwSuspAcct_RR	LOAD DATA	Reasons based on alerts gener- ated in Oracle Financial Services Behavior Detection Framework	Task3
Task4	RvwFreqCust_RR	LOAD DATA	Reasons based on alerts gener- ated in Oracle Financial Services Behavior Detection Framework	Task4
Task5	RvwFreqAcct_RR	LOAD DATA	Reasons based on alerts gener- ated in Oracle Financial Services Behavior Detection Framework	Task5
Task6	RvwCustSAR_RR	LOAD DATA	Reasons based on alerts gener- ated in Oracle Financial Services Behavior Detection Framework	Task6
Task7	RvwHighScoreCust_RR	LOAD DATA	Reasons based on alerts gener- ated in Oracle Financial Services Behavior Detection Framework	Task7
Task8	RvwHighScoreAcct_RR	LOAD DATA	Reasons based on alerts gener- ated in Oracle Financial Services Behavior Detection Framework	Task8
Task9	RvwCustStateChg_RR	LOAD DATA	Reasons based on change log summary in Oracle Financial Ser- vices Behavior Detection Frame- work	Task9

	Rule Name			
Task No	(As configured)	Description	Component Id	Precedence
Task10	RvwAcctStateChg_RR	LOAD DATA	Reasons based on change log summary in Oracle Financial Ser- vices Behavior Detection Frame- work	Task10
Task11	RvwCustCntyChg_RR	LOAD DATA	Reasons based on change log summary in Oracle Financial Ser- vices Behavior Detection Frame- work	Task11
Task12	RvwAcctCntyChg_RR	LOAD DATA	Reasons based on change log summary in Oracle Financial Ser- vices Behavior Detection Frame- work	Task12
Task13	RvwCustCtzChg_RR	LOAD DATA	Reasons based on change log summary in Oracle Financial Ser- vices Behavior Detection Frame- work	Task13
Task14	RvwIncCustAuth_RR	LOAD DATA	Reasons based on change log summary in Oracle Financial Ser- vices Behavior Detection Frame- work	Task10, Task11, Task12, Task13, Task14, Task2, Task3, Task4, Task5, Task6, Task7, Task8, Task9
Task15	CustIdentificationAcc- tOpn	LOAD DATA	Identify the customers for Risk assessment creation for New Accounts	Task15
Task16	CustIdentificationAc- cRvw	LOAD DATA	Identify the customers for Risk assessment creation for Acceler- ated re-review customers	Task16
Task17	CustIdentificationPrdRvw	LOAD DATA	Identify the customers for Risk assessment creation for Periodic re-review customers	Task17
Task18	HoldRAIdentification	LOAD DATA	Identify the Risk assessments which were cleared from HOLD status for Risk assessment pro- cess	Task15, Task16, Task17, Task18
Task19	FN_CUST_IP_PRCNG_ DR	TRANS- FORM DATA	Identify the interested parties for the risk assessed customers	Task19
Task20	CreateRA	LOAD DATA	Creation of the Risk assessments	Task20
Task21	RACreationAction	LOAD DATA	Log action for Risk assessment creation	Task21
Task22	InitAcctRvwDtls	LOAD DATA	Account Repository maintenance	Task22
Task23	InitCustRvwDtls	LOAD DATA	Customer Repository mainte- nance	Task20, Task21, Task22, Task23
Task24	CreateSnpCust	LOAD DATA	Copy snapshot of risk assessed customer	Task24
Task25	FN_Regestration_Check	TRANS- FORM DATA	Identify if the risk assessed cus- tomer data is latest or old for the risk assessment process	Task25

	Rule Name			
Task No	(As configured)	Description	Component Id	Precedence
Task26	AccountOpenDoc	TRANS- FORM DATA	Documents required for Account Opening	Task26
Task27	CreateWlsReq	LOAD DATA	Create request for watch list pro- cessing for all the risk assess- ments	Task27
Task28	Watchlist_FuzzyMatch	TRANS- FORM DATA	Invoking the AML fuzzy match utility to scan the customers who are extracted above	Task28
Task29	CreateWlsResult	LOAD DATA	Populate the results for the watch requests created	Task29
Task30	LogWIsAction	LOAD DATA	Log action for Watchlist scanning	Task30
Task31	CreateNnsReq	LOAD DATA	Create request for Negative News Search processing for all the risk assessments	Task31
Task32	NNS_Invoke	TRANS- FORM DATA	Invoke the external third party service for all the requests cre- ated and load the data in the results table	Task32
Task33	LogNnsAction	LOAD DATA	Log action for Negative News Search scanning	Task33
Task34	CpySnpAdr	LOAD DATA	Copy snapshot of the customer address for the risk assessed customer	Task34
Task35	CpySnpCustPhnMnts	LOAD DATA	Copy snapshot of the customer phone for the risk assessed cus- tomer	Task35
Task36	DocumentVerification	LOAD DATA	Identify verification is done for all the risk assessed customers based on the type of documents provided by the customer	Task36
Task37	DocumentVerificationAc- tion	LOAD DATA	Log action for Document Verifica- tion scanning	Task37
Task38	CreateldvReq	LOAD DATA	Create request for Identity verifi- cation processing for all the risk assessments	Task38
Task39	IDV_Invoke	TRANS- FORM DATA	Invoke the external third party service for all the requests cre- ated and load the data in the results table	Task39
Task40	LogIdvAction	LOAD DATA	Log action for Identity verification scanning	Task40
Task41	CpySnpCustCtz	LOAD DATA	Copy snapshot of the customer citizenship for the risk assessed customer	Task41

	Rule Name			
Task No	(As configured)	Description	Component Id	Precedence
Task42	CpySnpAcctMnts	LOAD DATA	Copy snapshot of the customer accounts for the risk assessed customer	Task42
Task43	CpySnpCustSrcWlth	LOAD DATA	Copy snapshot of the customer source of wealth for the risk assessed customer	Task43
Task44	CpySnpAcctRoleMnts	LOAD DATA	Copy snapshot of the Role of customer on account for the risk assessed customer	Task44
Task45	CpySnpCustRelMnts	LOAD DATA	Copy snapshot of the customer to customer relationship for the risk assessed customer	Task45
Task46	CpySnpCustCntyMnts	LOAD DATA	Copy snapshot of the customer country for the risk assessed cus- tomer	Task46
Task47	CpySnpCustMkt	LOAD DATA	Copy snapshot of the market served by the customer for the risk assessed customer	Task47
Task48	CpySnpCustPrd	LOAD DATA	Copy snapshot of the products provided by the customer for the risk assessed customer	Task48
Task49	LogSnapshotAction	LOAD DATA	Log action for snap shot	Task49
Task50	FN_RB_PROCESSING	TRANS- FORM DATA	Rule based risk assessment pro- cess	Task50
Task51	CCRCalc_CIP_Dtls	LOAD DATA	Algorithm based risk assess- ment process	Task51
Task52	CCRCalc_CIP_PC	LOAD DATA	Algorithm based risk assess- ment process	Task52
Task53	CCRCalc_CIP_IP	LOAD DATA	Algorithm based risk assess- ment process	Task53
Task54	CCRCalc_WLS_Dtls	LOAD DATA	Algorithm based risk assess- ment process	Task54
Task55	CCRCalc_WLS_PC	LOAD DATA	Algorithm based risk assess- ment process	Task55
Task56	CCRCalc_WLS_IP	LOAD DATA	Algorithm based risk assess- ment process	Task56
Task57	CCRCalc_NNS_Dtls	LOAD DATA	Algorithm based risk assess- ment process	Task57
Task58	CCRCalc_NNS_PC	LOAD DATA	Algorithm based risk assess- ment process	Task58
Task59	CCRCalc_NNS_IP	LOAD DATA	Algorithm based risk assess- ment process	Task59
Task60	CCRCalc_RelshpRsns	LOAD DATA	Algorithm based risk assess- ment process	Task60
Task61	CCRCalc_CorpAgeRsns	LOAD DATA	Algorithm based risk assess- ment process	Task61

	Rule Name			
Task No	(As configured)	Description	Component Id	Precedence
Task62	CCRCalc_CntyOprRsns	LOAD DATA	Algorithm based risk assess- ment process	Task62
Task63	CCRCalc_CtzRsns	LOAD DATA	Algorithm based risk assess- ment process	Task63
Task64	CCRCalc_CntyHqRsns	LOAD DATA	Algorithm based risk assess- ment process	Task64
Task65	CCRCalc_CntyResRsns	LOAD DATA	Algorithm based risk assess- ment process	Task65
Task66	CCRCalc_CntyTaxRsns	LOAD DATA	Algorithm based risk assess- ment process	Task66
Task67	CCRCalc_IndustryRsns	LOAD DATA	Algorithm based risk assess- ment process	Task67
Task68	CCRCalc_OccupationRs ns	LOAD DATA	Algorithm based risk assess- ment process	Task68
Task69	CCRCalc_PubCompRsn s	LOAD DATA	Algorithm based risk assess- ment process	Task69
Task70	CCRCalc_SrcWlthRsns	LOAD DATA	Algorithm based risk assess- ment process	Task70
Task71	CCRCalc_LegStrcRsns	LOAD DATA	Algorithm based risk assess- ment process	Task71
Task72	CCRCalc_MrktRsns	LOAD DATA	Algorithm based risk assess- ment process	Task72
Task73	CCRCalc_ProdRsns	LOAD DATA	Algorithm based risk assess- ment process	Task73
Task74	CCRCalc_AcctPrdMap	LOAD DATA	Algorithm based risk assess- ment process	Task74
Task75	CCRCalc_MthdAcctOpn	LOAD DATA	Algorithm based risk assess- ment process	Task75
Task76	CCRCalc_CustCCRSmr y	LOAD DATA	Algorithm based risk assess- ment process	Task76
Task77	FN_CCRCALC_UPDDY NWT	TRANS- FORM DATA	Algorithm based risk assess- ment process	Task77
Task78	FN_CCRCALC_UPDRS KSCORE	TRANS- FORM DATA	Algorithm based risk assess- ment process	Task78
Task79	FN_CCRCALC_UPDWT RSKSCORE	TRANS- FORM DATA	Algorithm based risk assess- ment process	Task79
Task80	FN_CLOSUREUPD_RA CERSCORE	TRANS- FORM DATA	Algorithm based risk assess- ment process	Task80
Task81	FN_CLOSUREUPD_RA CERCTGRY	TRANS- FORM DATA	Algorithm based risk assess- ment process	Task81
Task82	FN_CLOSUREUPD_RA CERPRIOR	TRANS- FORM DATA	Algorithm based risk assess- ment process	Task82
Task83	FN_CLOSUREUPD_RA	TRANS- FORM DATA	Algorithm based risk assess- ment process	Task83

	Rule Name			
Task No	(As configured)	Description	Component Id	Precedence
Task84	FN_CLOSURE_UPDAT ES	TRANS- FORM DATA	Closure updated for the risk assessments created	Task84
Task85	LogModelBasedAction	LOAD DATA	Log action for Algorithm based risk assessment process	Task85
Task86	FN_RA_TO_CASE	TRANS- FORM DATA	Promotion of the Risk assess- ment to a Case	Task86
Task87	Auto_Case_Assignment	TRANS- FORM DATA	Invoking the Auto Case Assign- ment process of AML for assign- ing the cases to the users	Task87
Task88	FN_POST_CASE_ASSI GNMENT	TRANS- FORM DATA	Updating the details of the cases after the case assignment pro- cess is complete	Task88
Task89	FN_CUST_RA_HISTOR Y	TRANS- FORM DATA	Population of the data related to the Risk assessments created for the customer into the History table	Task89
Task90	FN_PRCNG_ACT_DATA _LOAD	TRANS- FORM DATA	Movement of the data from the Processing table to the Actual tables after the Risk assessment process	Task24, Task25, Task26, Task27, Task28, Task29, Task30, Task31, Task32, Task33, Task34, Task35, Task36, Task37, Task38, Task39, Task40, Task41, Task42, Task40, Task44, Task45, Task46, Task47, Task48, Task49, Task50, Task51, Task52, Task53, Task54, Task55, Task56, Task57, Task58, Task59, Task60, Task61, Task62, Task60, Task61, Task65, Task66, Task67, Task68, Task69, Task70, Task71, Task72, Task70, Task74, Task75, Task76, Task77, Task78, Task79, Task80, Task81, Task82, Task83, Task84, Task85, Task86, Task84, Task85, Task86, Task84, Task88, Task89, Task90
Task91	GenCustDetails_ED	EXTRACT DATA	Extract the Customer feedback details	Task91
Task92	GenWLSFeedback_ED	EXTRACT DATA	Extract the Watchlist scanning feedback details	Task92
Task93	GenCBSFeedback_ED	EXTRACT DATA	Extract customer details for CBS	Task93
Task94	FN_INCPRCDATEBYON E	TRANS- FORM DATA	Incrementing the KYC processing date by 1 day	Task94

	Rule Name			
Task No	(As configured)	Description	Component Id	Precedence
Task95	KYC_File_Rename	TRANS- FORM DATA	Renaming of the extracted files according to the AML needs	Task95
Task96	FN_RA_PURGE	TRANS- FORM DATA	Purging of the Autoclosed or UI closed risk assessments	Task96
Task97	FN_PARTITION_MAINT ENANCE	TRANS- FORM DATA	Dropping the partition on the FCT_CUST_RA_HISTRY table	Ν

Deployment-Initiation-Processing

The following table provides details about Deployment-Initiation-Process:

Table 9: Deployment-Initiation-Processing

Task No	Rule Name (As configured)	Description	Component Id	Precedence
Task1	FN_DEL_DATA_FRM_PRCN G	Truncate the data from KYC process- ing tables	TRANSFORM DATA	
Task2	CustIdentificationDI	Identify the customers for Risk assessment creation for DI	LOAD DATA	Task1
Task3	FN_CUST_IP_PRCNG_DI	Identify the interested parties for the risk assessed customers	TRANSFORM DATA	Task2
Task4	CreateRA	Creation of the risk assessments	LOAD DATA	Task3
Task5	RACreationAction	Log action for risk assessment cre- ation	LOAD DATA	Task4
Task6	InitAcctRvwDtls	Account Repository maintenance	LOAD DATA	Task5
Task7	InitCustRvwDtls	Customer Repository maintenance	LOAD DATA	Task6
Task8	CreateSnpCust	Copy snapshot of risk assessed cus- tomer	LOAD DATA	Task4, Task5, Task6, Task7
Task9	AccountOpenDoc	Documents required for Account Opening	TRANSFORM DATA	Task8
Task10	CreateWlsReq	Create request for watch list process- ing for all the risk assessments	LOAD DATA	Task9
Task11	Watchlist_FuzzyMatch	Invoking the Oracle Financial Services Behavior Detection Framework	TRANSFORM DATA	Task10
		fuzzy match utility to scan the cus- tomers who are extracted above		
Task12	CreateWIsResult	Populate the results for the watch requests created	LOAD DATA	Task11
Task13	LogWIsAction	Log action for Watchlist scanning	LOAD DATA	Task12
Task14	CpySnpAdr	Copy snapshot of the customer address for the risk assessed cus- tomer	LOAD DATA	Task13

Table 9: Deployment-Initiation-Processing

Task No	Rule Name (As configured)	Description	Component Id	Precedence
Task15	CpySnpCustPhnMnts	Copy snapshot of the customer phone for the risk assessed customer	LOAD DATA	Task14
Task16	CpySnpCustCtz	Copy snapshot of the customer citi- zenship for the risk assessed cus- tomer	LOAD DATA	Task15
Task17	CpySnpAcctMnts	Copy snapshot of the customer accounts for the risk assessed cus- tomer	LOAD DATA	Task16
Task18	CpySnpCustSrcWlth	Copy snapshot of the customer source of wealth for the risk assessed customer	LOAD DATA	Task17
Task19	CpySnpAcctRoleMnts	Copy snapshot of the Role of cus- tomer on account for the risk assessed customer	LOAD DATA	Task18
Task20	CpySnpCustRelMnts	Copy snapshot of the customer to customer relationship for the risk assessed customer	LOAD DATA	Task19
Task21	CpySnpCustCntyMnts	Copy snapshot of the customer coun- try for the risk assessed customer	LOAD DATA	Task20
Task22	CpySnpCustMkt	Copy snapshot of the market served by the customer for the risk assessed customer	LOAD DATA	Task21
Task23	CpySnpCustPrd	Copy snapshot of the products pro- vided by the customer for the risk assessed customer	LOAD DATA	Task22
Task24	LogSnapshotAction	Log action for snap shot	LOAD DATA	Task23
Task25	FN_RB_PROCESSING	Rule based risk assessment process	TRANSFORM DATA	Task24
Task26	CCRCalc_CIP_Dtls	Algorithm based risk assessment pro- cess	LOAD DATA	Task25
Task27	CCRCalc_CIP_PC	Algorithm based risk assessment pro- cess	LOAD DATA	Task26
Task28	CCRCalc_CIP_IP	Algorithm based risk assessment pro- cess	LOAD DATA	Task27
Task29	CCRCalc_WLS_Dtls	Algorithm based risk assessment pro- cess	LOAD DATA	Task28
Task30	CCRCalc_WLS_PC	Algorithm based risk assessment pro- cess	LOAD DATA	Task29
Task31	CCRCalc_WLS_IP	Algorithm based risk assessment pro- cess	LOAD DATA	Task30
Task32	CCRCalc_RelshpRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task31
Task33	CCRCalc_CorpAgeRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task32
Task34	CCRCalc_CntyOprRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task33

Task No	Rule Name (As configured)	Description	Component Id	Precedence
Task35	CCRCalc_CtzRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task34
Task36	CCRCalc_CntyHqRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task35
Task37	CCRCalc_CntyResRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task36
Task38	CCRCalc_CntyTaxRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task37
Task39	CCRCalc_IndustryRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task38
Task40	CCRCalc_OccupationRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task39
Task41	CCRCalc_PubCompRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task40
Task42	CCRCalc_SrcWlthRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task41
Task43	CCRCalc_LegStrcRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task42
Task44	CCRCalc_MrktRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task43
Task45	CCRCalc_ProdRsns	Algorithm based risk assessment pro- cess	LOAD DATA	Task44
Task46	CCRCalc_MthdAcctOpng		LOAD DATA	Task45
Task47	CCRCalc_AcctPrdMap		LOAD DATA	Task46
Task48	CCRCalc_CustCCRSmry	Algorithm based risk assessment pro- cess	LOAD DATA	Task47
Task49	FN_CCRCALC_UPDDYNWT	Algorithm based risk assessment pro- cess	TRANSFORM DATA	Task48
Task50	FN_CCRCALC_UPDRSKSC ORE	Algorithm based risk assessment pro- cess	TRANSFORM DATA	Task49
Task51	FN_CCRCALC_UPDWTRSK SCORE	Algorithm based risk assessment pro- cess	TRANSFORM DATA	Task50
Task52	FN_CLOSUREUPD_RACER SCORE	Algorithm based risk assessment pro- cess	TRANSFORM DATA	Task51
Task53	FN_CLOSUREUPD_RACER CTGRY	Algorithm based risk assessment pro- cess	TRANSFORM DATA	Task52
Task54	FN_CLOSUREUPD_RACER PRIOR	Algorithm based risk assessment pro- cess	TRANSFORM DATA	Task53
Task55	FN_CLOSUREUPD_RALAS TDATE	Algorithm based risk assessment pro- cess	TRANSFORM DATA	Task54
Task56	FN_CLOSURE_UPDATES	Closure updated for the risk assess- ments crated	TRANSFORM DATA	Task55
Task57	LogModelBasedAction	Log action for Algorithm based risk assessment process	LOAD DATA	Task56
Task58	FN_RA_TO_CASE	Promotion of the Risk assessment to a Case	TRANSFORM DATA	Task57

Table 9: Deployment-Initiation-Processing

Task No	Rule Name (As configured)	Description	Component Id	Precedence
Task59	Auto_Case_Assignment	Invoking the Auto Case Assignment process of Oracle Financial Services Behavior Detection Framework for assigning the cases to the users	TRANSFORM DATA	Task58
Task60	FN_POST_CASE_ASSIGNM ENT	Updating the details of the cases after the case assignment process is complete	TRANSFORM DATA	Task59
Task61	FN_CUST_RA_HISTORY	Population of the data related to the Risk assessments created for the cus- tomer into the History table	TRANSFORM DATA	Task60
Task62	FN_PRCNG_ACT_DATA_LO AD	Movement of the data from the Pro- cessing table to the Actual tables after the Risk assessment process	TRANSFORM DATA	Task61

End of Day Processing

The following table provides details about end of day processing:

Table 10: End of Day Processing

Task No	Rule Name (As configured)	Description	Component Id	Precedence
Task1	GenCustDetails_ED	Extract the customer feedback details	EXTRACT DATA	
Task2	GenWLSFeedback_ED	Extract the Watchlist scanning feedback details	EXTRACT DATA	Task1
Task3	GenCBSFeedback_ED	Extract customer details for CBS	EXTRACT DATA	Task2
Task4	FN_INCPRCDATEBYONE	Incrementing the KYC processing date by 1 day	TRANSFORM DATA	Task3
Task5	KYC_File_Rename	Renaming of the extracted files according to the AML needs	TRANSFORM DATA	Task4
Task6	FN_RA_PURGE	Purging of the Autoclosed or UI closed risk assessments	TRANSFORM DATA	Task5
Task7	FN_PARTITION_MAINTENANCE	Droping the partition on the FCT_CUST_RA_HISTRY table	TRANSFORM DATA	Task6
Task8	FN_REREVIEW_DATE_DI	Spliting of the customers pro- cessed through the DI processing back for periodic re-review	TRANSFORM DATA	Task7

APPENDIX B Excel Upload Templates

This appendix discusses about the excel upload templates.

Excel Upload Templates

The Excel Upload activity must be done in a specific order for certain templates. The order of the excel upload is as below:

Table 11: List of Excel Upload Templates

Table Name	Excel Upload Template	Excel Mapping Name
DIM_JURISDICTION	DIM_JURISDICTION.xls	DIM_JURISDICTION.xml
DIM_CUSTOMER_TYPE	DIM_CUST_TYP.xls	DIM_CUSTOMER_TYPE.xml
DIM_COUNTRY	DIM_COUNTRY.xls	DIM_COUNTRY_KYC.xml
APPLN_INSTALL_PARAMS	APPLN_INSTALL_PARAMS.xls	APPLN_INSTALL_PARAMS.xml
APPLN_PARAMS	APPLN_PARAMS.xls	APPLN_PARAMS.xml
APPLN_RB_PROCESSING	APPLN_RB_PROCESSING.xls	APPLN_RB_PROCESSING.xml
APPLN_REREVIEW_PARAMS	APPLN_REREVIEW_PARAMS.xls	APPLN_REREVIEW_PARAMS.xml
APPLN_RISK_RATING_PARAM S	APPLN_RISK_RATING_PARAMS.x ls	APPLN_RISK_RATING_PARAMS. xml
DIM_ACCOUNT_TYPE	DIM_ACCOUNT_TYPE.xls	DIM_ACCOUNT_TYPE.xml
DIM_ACCOUNT_OPENING_MET HODS	DIM_ACCOUNT_OPENING_METHOD S.xls	DIM_ACCT_OPENING_MTHDS.xm 1
MAP_ACCT_OPENG_METHODS	MAP_ACCOUNT_OPENING_METHOD S.xls	MAP_ACCT_OPENING_MTHDS.xm 1
MAP_ACCOUNT_TYPE	MAP_ACCOUNT_TYPE.xls	MAP_ACCOUNT_TYPE.xml
DIM_ACCT_CUST_ROLE_TYPE	DIM_ACCT_CUST_ROLE_TYPE.xl s	DIM_ACCT_CUST_ROLE_TYPE.x ml
DIM_KYC_ACTION	DIM_KYC_ACTION.xls	DIM_ACTION_KYC.xml
DIM_ADDRESS_TYPE	DIM_ADDRESS_TYPE.xls	DIM_ADDRESS_TYPE_KYC.xml
DIM_CITIZENSHIP_STATUS	DIM_CITIZENSHIP_STATUS.xls	DIM_CITIZENSHIP_STATUS.xm 1
DIM_COMPANY_TYPE_RISK	DIM_COMPANY_TYPE_RISK.xls	DIM_COMPANY_TYPE_RISK.xml
DIM_CORP_AGE_RANGE	DIM_CORP_AGE_RANGE.xls	DIM_CORP_AGE_RANGE.xml
DIM_CTZNSHP_STATUS_DOC_ VERF	DIM_CTZNSHP_STATUS_DOC_VER F.xls	DIM_CTZNSHP_STATUS_DOC_VE RF.xml
DIM_KYC_DOCUMENT_TYPE	DIM_KYC_DOCUMENT_TYPE.xls	DIM_DOCUMENT_TYPE_KYC.xml
DIM_INCOME_SRC_TYPES	DIM_INCOME_SRC_TYPES.xls	DIM_INCOME_SRC_TYPES.xml
DIM_INDUSTRY	DIM_INDUSTRY.xls	DIM_INDUSTRY_KYC.xml
DIM_LGLSTRUC_OWNRSHP_RI SK	DIM_LGLSTRUC_OWNRSHP_RISK. xls	DIM_LGLSTRUC_OWNRSHP_RISK .xml

Table 11: List of Excel Upload Templates

Table Name	Excel Upload Template	Excel Mapping Name
DIM_MARKETS_SERVED	DIM_MARKETS_SERVED.xls	DIM_MARKETS_SERVED.xml
DIM_NEG_NEWS_RANGE	DIM_NEG_NEWS_RANGE.xls	DIM_NEG_NEWS_RANGE.xml
DIM_OCCUPATION	DIM_OCCUPATION.xls	DIM_OCCUPATION_KYC.xml
DIM_PHONE_TYPE	DIM_PHONE_TYPE.xls	DIM_PHONE_TYPE.xml
DIM_PRODUCT	DIM_PRODUCT.xls	DIM_PRODUCT_KYC.xml
DIM_RAORRISK_CATEGORY	DIM_RAORRISK_CATEGORY.xls	DIM_RAORRISK_CATEGORY.xml
DIM_RA_PRIORITY	DIM_RA_PRIORITY.xls	DIM_RA_PRIORITY.xml
DIM_RA_SOURCE	DIM_RA_SOURCE.xls	DIM_RA_SOURCE.xml
DIM_RELATIONSHIP_TYPE	DIM_RELATIONSHIP_TYPE.xls	DIM_RELATIONSHIP_TYPE.xml
DIM_RELN_PERIOD_RANGE	DIM_RELN_PERIOD_RANGE.xls	DIM_RELN_PERIOD_RANGE.xml
DIM_RISK_CATEGORY	DIM_RISK_CATEGORY.xls	DIM_RISK_CATEGORY.xml
DIM_KYC_STATUS	DIM_KYC_STATUS.xls	DIM_STATUS_KYC.xml
DIM_TAX_IDENT_FORMAT	DIM_TAX_IDENT_FORMAT.xls	DIM_TAX_IDENT_FORMAT.xml
DIM_WLS_FEEDBACK	DIM_WLS_FEEDBACK.xls	DIM_WLS_FEEDBACK.xml
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MAP_COUNTRY_JRSDCN	MAP_COUNTRY_JRSDCN.xls	MAP_COUNTRY_JRSDCN.xml
MAP_INCOME_SRC_TYPES_JR SDCN	MAP_INCOME_SRC_TYPES_JRSDC N.xls	MAP_INCOME_SRC_TYPES_JRSD CN.xml
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MAP_OCCUPATION_JRSDCN	MAP_OCCUPATION_JRSDCN.xls	MAP_OCCUPATION_JRSDCN.xml
MAP_PRODUCT_JRSDCN	MAP_PRODUCT_JRSDCN.xls	MAP_PRODUCT_JRSDCN.xml
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VW_APPLN_RISK_RATING_PA RAMS	VW_APPLN_RISK_RATING_PARAM S.xls	VW_APPLN_RISK_RATING_PARA MS.xml
FCT_DOCS_GUIDELINES	FCT_DOCS_GUIDELINES.xls	FCT_DOCS_GUIDELINES.xml

NOTE:

- DIM_COUNTRY will be uploaded through Task RefDataPopulation using AM login (ECMADMN). As a
 prerequisite, the stg_country_master table should be populated.
- DIM_KYC_ACTION, DIM_KYC_STATUS, DIM_KYC_DOCUMENT, and MAP_ACCT_OPENG_METHODS will be uploaded using Excel upload activity.

APPENDIX C Configurability

This appendix discusses the following topics:

- Application Related Configuration
- OFSAAI Related Configuration
- Application Configuration Using OFSAAI Configurability

Configurability of the OFS KYC can be categorized in the following ways:

- Application Related
- OFSAAI Related

Application Related Configuration

KYC risk assessments requires some inputs from application parameters and installation parameters which can be defined by the admin user from the user interface.

For more information, refer to the *Configuration Guide*.

OFSAAI Related Configuration

OFSAAI allows you to perform the following tasks:

- Incremental model changes:
 - Add No Impact
 - Modify Data dependency dictated by the back-end DB and manual un-mapping and mapping of metadata.
 - Delete Data dependency dictated by the back-end DB and manual un-mapping and mapping of metadata.
- ETL Changes:
 - Add
 - Change
 - Delete
- Definition of Excel Upload mapping to push data into the Database.
- Files and tables based on Source Data Definition.
- Metadata Data Maintenance:
 - Add
 - Modify
 - Delete
- Operations Administration:

- Batch Scheduling flexibility
- Hold or delete tasks from the batch.(For Example: Insert, Update Rules, Custom Executable, and Procedures)
- Changes to User or User Group Function and Role definitions and mapping.
- UI and Workflow Maintenance

Note: Changes to UI and workflow definitions requires knowledge of OFSAAI specific editors in addition to the knowledge of OFS KYC and the OFSAAI.

The following figure displays mapping used to push data into the application Database periodically:



Figure 11. Data Integrator Process Flow



The following figure illustrates basic metadata, derived entity, rules, and reports:

Figure 12. Mart Builder Process Flow



Figure 13. Elements of OFSAAI Configurability
Application Configuration Using OFSAAI Configurability

- Web Service Call (Real Time Account On boarding Risk):
 - Data model changes, as applicable, to add an additional column or table
 - Revisions to Service Guide
 - Request and Response template corrections related to the Third Party service
 - Communication with the Source systems regarding the revisions of request and response formats
 - Testing of the revised request and response
- Additional Risk Models / Risk Parameters:
 - Data model changes as applicable, to add an additional columns or tables
 - Changes to File Based Data Ingestion / Web Service based Ingestion as explained above
 - Complete knowledge of how the System is designed (Data Model Knowledge)

Note: The Risk Assessment Module is configured using the OFSAAI Rules FW.

- Creation / Modification of Type 1 Rules:
 - Revision to Join as applicable
 - Filter correction, to remove or add an additional filter
 - Mapping of columns
- Creation/Modification of Type 2 and 3 Rules (Classification and Computational Rules):
 - Revision to Process Tree (to add/modify tasks and task sequence)
 - Revision to the run definition
 - Revision to the configurable values such model code / model parameter, Risk Weight
 - UI for maintaining the Risk modes and Risk Parameters
 - UI for maintaining the parameter Risk Values
 - Related Documentation revision
- Modification to the Pre-configured Risk Models Slight Change in Logic:
 - Enhancing / changing the filter condition require all the steps mentioned above, except changes to the DM and related changes.
- Additions to Pre-Configured Re-Review Processing:
 - Additional derived entity definitions based on the Oracle Financial Services Alert Management System.
 - Complete knowledge of how the system is designed (Data Model Knowledge) for Re-Review processing.
 - Re-Review Processing is configured using the OFSAAI Rules FW.
- Creation/Modification of Type 1 Rules:
 - Revision to Join as applicable
 - Filter correction, to remove or add an additional filter
 - Mapping of columns

- Creation / Modification of Type 2 and 3 Rules (Classification and Computational Rules):
 - Revision to Process Tree (to add / modify tasks and task sequence)
 - Revision to the run definition
 - UI for maintaining the Re-Review Rules and parameters
 - Related Documentation revision
- Changes to Pre-Configured Re-Review Processing Models Slight Change in Logic:
 - Enhancing or changing the filter condition requires all the steps mentioned above, except changes to the DM and related changes.
- Process Flow Changes:
 - All batch workflows (Default Review / Re-Review / Feedback Processing) are configured using the OFSAAI Rules FW

These steps must be executed depending on the type of change.

APPENDIX D Extraction Definition

Extraction

To set the delimiter used in the extraction files, follow these steps:

- 1. Login to the Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.
- 2. From the Common Tasks option, select Unified Metadata Manager.
- 3. Select Data Integrator Framework then select Warehouse Designer.
- 4. Click Data Mapping. The Data Mapping screen displays.

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Figure 14. Data Mapping screen

5. Select and open the extraction from the list.

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Figure 15. Extract Properties

- 6. Click **Properties**. A pop-up window opens and lists the properties of the extraction.
- 7. Set the required delimiter and save the extraction.

APPENDIX E Configuring Batches and Runs

This appendix details the configuration of Batches and includes the steps for the following:

- Saving Runs
- Creating Batches
- Running a Single Task Using a Batch
- Scheduling a Batch
- Monitoring a Batch After Execution
- Cancelling a Batch After Execution

Saving Runs

To save runs, follow these steps:

- 1. Login to the Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.
- 2. From the Common Tasks option, select Rule Run Framework. The Rule Run Framework window appears.
- 3. Click **Run**. The Run screen displays. Pre-defined runs (included with the installer) are available in the List section.

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Figure 16. Run screen

- 4. Select the run you wish to add by clicking the checkbox associated with the run.
- 5. Click Fire Run. The Run Rule Framework dialog box opens.

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Figure 17. Run Rule Framework dialog box

- 6. Select the Request Type as **Single**.
- From the Execution Mode section, select Create or Create and Execute from the Batch drop-down list. If you select Create and Execute, an MIS Date field is displayed Select an MIS Date using the calender icon. The Batch starts executing.

If you select **Create**, then the run appears in the Batch Execution page. You can then schedule the Batch by following the steps given in section *Scheduling a Batch*.

- 8. Select No from the Wait drop-down list.
- 9. Click OK.

Scheduling a Batch

When a firm wants to run the batches periodically, a KYC Administrator user can schedule the batches to be run either once, daily, weekly, or monthly.

Note: For the batches to start, iccserver, router, AM and message server must be started in the same sequence as mentioned. For more information on starting servers, refer to the *Installation Guide*.

This section includes the following topics:

- Creating Batches
- Running a Single Task Using a Batch
- Scheduling a Batch Once
- Scheduling a Daily Batch
- Scheduling a Weekly Batch
- Scheduling a Monthly Batch
- Monitoring a Batch After Execution
- Cancelling a Batch After Execution

Note: Available cursors in database should be set to a minimum of 1000. Before Webserver restart, dispatcher should be ended.

Creating Batches

To create a batch, follow these steps:

- 1. Login to Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.
- 2. From the **Common Tasks** option, select **Operations** in the LHS menu.
- 3. Click **Batch Maintenance**. The Batch Maintenance page is displayed.

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Figure 18. Batch Maintenance Page

4. From the Batch Name section, click. 🕮. The Add Batch Definition page is displayed.

	9		
» Batch Maintenance			
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Duplicate Balch		Batch ID	~
Sequential Datch	O		

Figure 19. Add Batch Definition page

5. Enter the batch details, as described in the following table:

Table 12. New Batch Details

Field	Description
Batch Name	Enter the name for the new batch.
Batch Description	Enter a description for this batch.
Duplicate Batch	Select this check box if the batch is a duplicate batch.

Field	Description
Sequential Batch	Select this check box if the batch must be run sequentially to another batch.
Batch ID	The Batch ID will be auto-populated.

6. Click Save.

Running a Single Task Using a Batch

From the Batch Execution page, you can also run a single task from a batch.

Note: Running a single task using a batch is not a recommended approach and should be done only for debugging a particular task.

To run a single task using a batch, follow these steps:

- 1. Login to the Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.
- 2. From the Common Tasks option, select Operations in the LHS menu.
- 3. Click **Batch Execution**. The Batch Execution page is displayed.
- 4. From the Batch Details section, select the particular batch that you want to execute.
- 5. From the Task Details section, click 2. The Task Mapping window is displayed.



Figure 20. Running a Single Task Using a Batch

- 6. Retain the tasks that you want to execute under Available Tasks section and move the rest to the Set Tasks section.
- 7. Click **OK**. The following warning message is displayed: *If you exclude a task, it will be skiped when executing the batch but, the precedence will not be altered. Do you want to exclude the selected task(s)?*
- 8. Click OK.
- 9. Click Execute Batch.

Scheduling a Batch Once

To schedule a batch that you want to run only once, follow these steps:

- 1. Login to the Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.
- 2. From the Common Tasks option, select Operations in the LHS menu.
- 3. Click Batch Scheduler. The Batch Scheduler page is displayed.
- 4. Select a batch that you want to schedule from the list of available batches. The Batch Scheduler section is expanded and displays additional options.
- 5. Click New Schedule.
- 6. Set the frequency of the new schedule as **Once**.
- 7. Enter the schedule time of the batch by specifying the **Start Date** and the **Run Time**.

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Figure 21. Scheduling a Batch Once

8. Click Save.

Scheduling a Daily Batch

To schedule a batch that you want to run daily, follow these steps:

- 1. Login to the Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.
- 2. From the **Common Tasks** option, select **Operations** in the LHS menu.
- 3. Click Batch Scheduler. The Batch Scheduler page is displayed.
- 4. Select a batch that you want to schedule from the list of available batches. The Batch Scheduler section is expanded and displays additional options.
- 5. Click New Schedule.
- 6. Set the frequency of the new schedule as **Daily**.
- 7. Enter the schedule time of the batch by specifying the **Dates**, **Run Time**, and **Every** information.

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Figure 22. Scheduling a Daily Batch

8. Click on Save.

Scheduling a Weekly Batch

To schedule a batch that you want to run weekly, follow these steps:

- 1. Login to the Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.
- 2. From the **Common Tasks** option, select **Operations** in the LHS menu.
- 3. Click **Batch Scheduler**. The Batch Scheduler page is displayed.
- 4. Select a batch that you want to schedule from the list of available batches. The Batch Scheduler section is expanded and displays additional options.
- 5. Click New Schedule.
- 6. Set the frequency of the new schedule as Weekly.
- 7. Enter the schedule time of the batch by specifying the **Dates**, **Run Time**, **Every**, **Working days of the Week** information.

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Figure 23. Scheduling a Weekly Batch

8. Click on Save.

Scheduling a Monthly Batch

To schedule a batch that you want to run monthly, follow these steps:

1. Login to the Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.

- 2. From the **Common Tasks** option, select **Operations** in the LHS menu.
- 3. Click **Batch Scheduler**. The Batch Scheduler page is displayed.
- 4. Select a batch that you want to schedule from the list of available batches. The Batch Scheduler section is expanded and displays additional options.
- 5. Click New Schedule.
- 6. Set the frequency of the new schedule as Weekly.
- 7. Enter the schedule time of the batch by specifying the **Dates**, and **Run Time** information.

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OFSKYCINFO_	1422883529316		AutoRun_134302	1798452_Description		
OFSKYCINFO_	1422883535350		AutoRun_133838/	4666483_Description		
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Figure 24. Scheduling a Monthly Batch

8. Click on Save.

Monitoring a Batch After Execution

Monitoring a batch helps you track the status of execution of an individual task that was included in the batch. Through monitoring, you can also track the batch status which in turn helps you in debugging.

To monitor a batch after it is executed, follow these steps:

- 1. Login to the Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.
- 2. From the Common Tasks option, select Operations in the LHS menu.
- 3. Click Batch Monitor. The Batch Monitor page is displayed in the RHS.

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 B Operations 	U 0F3KrCRHF0_142285511976 AutoRum_134060183601_Description			e .		
	G 0F301C8HP0_1422833528316 AutoRue_1343321716452_Desception					
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	Tank (D)	Land Participation Laboration	Antonio Parcellina	The state of the s		

Figure 25. Batch Monitor Page

- 4. Select a batch from the Batch Details lists that you want to monitor.
- 5. From Batch Run Details section, select an Information Date and the Batch Run ID from the drop-down list.
- 6. Click 🔟 to start the monitoring. The Batch Status, Task Details, and Event Log sections are populated with information about this batch's execution.

Cancelling a Batch After Execution

Cancellation of a batch cancels a current batch execution.

Note: This is not recommended and should be done only when the batch was fired accidentally or when a particular is taking too long to execute.

To cancel a batch after it is executed, follow these steps:

- 1. Login to the Oracle Financial Services Analytical Applications Infrastructure page as a KYC Administrator user.
- 2. From the Common Tasks option, select Operations in the LHS menu.
- 3. Click Batch Cancellation. The Batch Cancellation page is displayed in RHS.

Common Tasks > Operations	> Batch Cancella	tion				
Batch Cancellation						0
» Refresh Interval				2 🗯		
Refresh Rate (seconds)	10					
» Ratch Dataila						
" Datch Details		1	I		▼	
Batch Run ID		Batch ID	Batch Description		Start Time	Elapsed Time
BD802DC8 CREATEC	R 20160202 1	BD802DC8 CREATECTR	Create CTR		02/02/2016 12:53:50	0:12:15
» Task Details				6	₹	
» Legend						
Legend	Not Starte	d Ongoing Succe	ssful Cancelled			

Figure 26. Batch Cancellation Page

- 4. Under the Batch Details section, select the batch whose execution you want to cancel.
- 5. Click Cancel Batch.

APPENDIX F KYC Batch Execution Logs

This appendix provides the information on where log files are created for each type of task in the Oracle Financial Services KYC.

Logs are created only after the batches are executed. The following types of tasks are present in the batches:

- Table 2 Table (T2T)
- File 2 Table (F2T)
- Transform Data (DT)
 - SQL Function execution
 - Shell Script execution
- Table 2 File (T2F)
- Run Rule (PR2 Rule)

Batch Execution Logs are based on the types of rule. The following sections describe the types of task present in the batches:

Table 2 Table (T2T)

The logs for this type of task will be created in the path as follows:

```
<Ofsaai Installed Area>/ficdb/log/ t2t/KYC12DOM_1221824179931_20121122_1_Task1_ttl.log
```

The following table describes the log file:

Table 13: Table 2 Table (T2T)

Component	Description
KYC12DOM	This is the INFODOM on which the batch was executed
1221824179931	This is the ID of the RUN (batch is created once the RUN is saved)
20121122	This is the date on which the Batch was executed
1	The batch is executed for the first time on the same day
Task1	This log file is for the Task1 of the batch

File 2 Table (F2T)

The logs for this type of task will be created in the path as follows:

<Ofsaai Installed Area>ficdb/logs/date-DS_KYC12DOM_1263964041287_20121120_2_Task2.log

Table 14: File 2 Table (F2T)

Component	Description
DS	This is a product indication for the type of log
KYC12DOM	This is the INFODOM on which the batch was executed
1263964041287	This is the ID of the RUN (batch is created once the RUN is saved)
20121120	This is the date on which the Batch was executed
2	The batch is executed for the second time on the same day
Task2	This log file is for the Task2 of the batch

In addition to this log, the following logs and files are created for the F2T type of tasks:

- control=/ftpshare/KYC12DOM/scripts/load/ACCOUNT_OPEN/ExtAcct_DR.ctl The data will be loaded into the table as per this control file, this file is provided by the Installer.
- data=/ftpshare/STAGE/ACCOUNT_OPEN/20121121/ExtAcct_DR.dat This is the file provide by the client.
- bad=/ftpshare/STAGE/ACCOUNT_OPEN/20121121/ ExtAcct_DR.bad This file will be created only if any of the data is rejected from the actual dat file.
- log=/ftpshare/ACCOUNT_OPEN/20121121/F2T-TEST_dat.log This log file provides the information on how many records are loaded and how many are rejected, also the reason why the data is not loaded.

Transform Data (Data transformation or DT logs)

The logs for this type of task will be created in the path as follows.

The following types of definitions can be defined under data transformations:

- Executing a Stored procedure
- Executing a Shell script

The following log files are created for the Stored Procedure execution type of Transform data. The definition name will be available in these log files.

- <Ofsaai Installed Area>/ficdb/log/date/DT_KYC12DOM_1221824179931_20121123_1_Task23.log
- <0fsaai Installed
 Area>/ficdb/log/date/RunProc_KYC12DOM_1221824179931_20121123_1_Task23.log
- /ftpshare/<DT_Definition_name>.log /

The following logs are created for the Shell script type of Transform data:

<Ofsaai Installed Area>/ficdb/log/date/DT_KYC12DOM_1221824179931_20121123_1_Task23.log

Information related to the failure will be inserted into the <code>am_log_file.logfile</code> which is present in the path <Ofsaai Installed Area>/ficdb/log/

Table 15: Shell script Transform data

Component	Description
DT	This is a product indication for the Data transformation type of log
RunProc	This indicated that the log is for running a procedure (function)
KYC12DOM	This is the INFODOM on which the batch was executed
1263964041287	This is the ID of the RUN (batch is created once the RUN is saved)
20121120	This is the date on which the Batch was executed
2	The batch is executed for the second time on the same day
Task23	This log file is for the Task23 of the batch
DT_Definition_name	A log file will be created with the name of the DT definition created.

Table 2 File (Extraction of Data)

The logs for this type of task will be created in the path as follows:

<Ofsaai Installed Area>/ficdb/log/extraction/
KYC12DOM_1263964041287_20121122_2_Task24_ext.log

 Table 16: Table 2 File (Extraction of Data)

Component	Description
KYC12DOM	This is the INFODOM on which the batch was executed
1263964041287	This is the ID of the RUN (batch is created once the RUN is saved)
20121122	This is the date on which the Batch was executed
2	The batch is executed for the second time on the same day
Task24	This log file is for the Task24 of the batch
ext	This means that the log files is for extraction type of task

A log file with the name of the task executed will be generated in the following path: /ftpshare/STAGE/KYCsource/

For Example:

GenCBSFeedback_ED.log

Run Rule (PR2 rule - Update Rule)

The logs for this type of task will be created in the path as follows.

<Ofsaai Installed Area>/ficdb/log/runrule/KYC12DOM_1224493633301_20121115_1_Task1_PR2.LOG

Component	Description
KYC12DOM	This is the INFODOM on which the batch was executed
1224493633301	This is the ID of the RUN (batch is created once the RUN is saved)
20121115	This is the date on which the Batch was executed
1	The batch is executed for the first time on the same day
Task1	This log file is for the Task1 of the batch
PR2	This is a PR2 type of log. Log file for the definition created through PR2 framework

Table 17: Run Rule (PR2 rule - Update Rule)

Promote to Case

If any of the risk assessments are not promoted to a case, refer to the table RA_TO_CASE_ERROR present in the KYC Atomic schema for the reasons for not being promoted.

APPENDIX G Adding New Paramater

This appendix provides the information on how to add new risk assessment paramater based on the customer postal code into the existing KYC Risk Model.

Overview

There are two types of assessments available in KYC:

- Rule Based Assessment
- Algorithm Based Assessment

The customer can choose to use:

- Rule Based assessment followed by Algorithm based for the customers who are not assed based on the rule based assessment.
- Algorithm Based only (Rule Based assessment can be disabled)
- Algorithm based assessment can be done by default and overwritten by Rule based (this requires additional batch configuration)
- Rule Based only (Additional configuration required)

Changes needed to be done for new parameter to be considered during the KYC Risk rating process are detailed in the following sections.

Rule Based Risk Rating process

The Rule Based Risk Rating process compares the customer postal code with those postal codes which are pre-configured as High Risk in the application. If the customer postal code matches with any of the pre-configured postal codes then the risk score of the postal code from the postal code mapping table is picked and that score is treated as the CER score of the customer.

One or more rule based parameters can be enabled for an implementation. And any one or combination of rules can decide the risk score (max risk score) of the customer.

Following are the steps to implement the Rule Based Risk Rating process.

- 1. Data Assessment
- Check if the business tables capture the data attributes which is to be used for risk assessment.
- Verify the need to populate the data from FSDF or populate the data in the business tables directly.
- 2. Data Model Changes
- If the attributes are not available in the business tables, the attributes needs to be added in the business table.
- If there are additions to business tables, the same has to be added in KYC System as well.
 - Processing tables
 - Main Tables

NOTE: The processing and main tables are more or less identical in their names.

- Currently the processing and the main tables in the KYC system do not replicate the structure of the business tables. Hence, verification of the attributes availability in the KYC system is a must.
- T2T which captures the snapshot information to the mail table has to be updated. Refer to the section *Appendix A, "KYC Batches,*" for the snapshot T2T names. The component ID provides details of the rule name.
- Function which moves the data from processing to main tables, does not require updates if we are adding new columns to the existing processing tables. It requires when we add a new table in the processing area.
- Each rule to have two tables being created, Dim and Map.
- Two new tables should be added into the existing KYC Data Model.
- A Dimension table to capture the possible values for a rule or a parameter to be added.
 - Please refer to existing Dim table structure as example
 - Every possible value needs to have a Key associated to it, and the key has to be numeric value and is to be unique for that table. KYC processes the data based on Key and not on Codes.
- A Mapping table for the above mentioned Dimension table.
 - This table should store the scores associated with each value for the required jurisdictions.
 - A value can have same or different scores for different jurisdictions in the mapping table for the code values
 - Catch all buckets should be defined for each code value for which no risk score is available or risk score is the same.
 - Refer to the MAP_OCCUPATION_JRSDCN table structure as example
- The aforementioned table should be added through the KYC Data Model only.
- 3. Source model generation has to be done whenever the data model is altered.
- 4. The new rules should be introduced for the additional rules being added, into the Application Rule Based Processing table (APPLN_RB_PROCESSING). This table is present in the KYC Atomic schema. Use the excel upload template to update the new rules. Refer to KYC Administration Guide for the template name.
- 5. FN_RB_PROCESSING is the function which does the comparison of the rule based parameters to the predefined attributes. The PL/SQl function can be enhanced to the following:
- To compare the code value with the pre-configured codes values. If the code value matches with any of the pre-configured codes values then the risk score associated to the code value for the jurisdiction to which the customer belongs will be considered as the Customer Risk score.
- If more than one rule applies for the customer, max score will be considered and risk rating remarks will be concatenated with the rules that are triggered for the customer.
- There needs to be an update to the existing PL/SQL function to reflect the new rules being added.
- In the select statement add the Attributes to be picked from FCT_RA_CUSTOMER_PRCNG.
- Add the left outer join for each of rule attributes being added. Follow the same structure as of the existing left outer join.

• Add the union all condition for each of the rule attributes being added. Follow the same structure as of the existing union all condition.

NOTE:

- The customer's whose risk score is assessed based on the Rule Based processing will not be considered further for the Algorithm Based Rule Processing.
- All the customers who had a match during the Rule Based Processing will be sent to the UI for investigations, these Risk Assessments will not be auto closed even if the CER score of the customer falls into the low are medium risk category.

Algorithm Based Risk Processing

Following are the steps to implement the Algorithm Based Risk Processing:

- 1. Data Assessment
- Check If the AML system captures the postal code for the customer (For example: Customer postal code)
- Check if the data is captured in the Customer table or the Customer Address table of the AML system
- If the data is captured in the Customer Address table, then identify for which address type of the customer the postal code verification is done.
- 2. Data Model Changes
- Two new tables should be added into the existing KYC Data Model,
- A Dimension table to store all the Postal Codes.
 - Refer to DIM_OCCUPATION table structure as example
 - Additionally, add a code column to hold the country code.
- A Mapping table for the aforementioned Dimension table.
 - This table should store the scores associated with each postal code for the required jurisdictions.
 - A postal code can have same or different scores for different jurisdictions in the mapping table for the postal codes.
 - Catch all buckets should be defined for postal codes for which no risk score is available or risk score is the same.
 - Refer to the MAP_OCCUPATION_JRSDCN table structure as example
- The aforementioned table should be added through the KYC Data Model only.
- 3. A New parameter should be added into the Application Risk Rating Parameters table (APPLN_RISK_RATING_PARAMS). This parameter will be added into the Existing KYC Risk model.
- The parameter should be added to all the Customer Types available
- The parameter should be assigned a weightage to it
- The total weightage of all the parameters for a particular customer type should not go beyond 100
- Ensure this parameter is reflected in the mapping table of the Application Risk Rating Parameters (VW_APPLN_RISK_RATING_PARAMS) for the required jurisdiction.
 - This can be achieved from the UI (Menu >Menu --)

- 4. Modifications/Addition of the Rules
- The following table explains the rule(s) that needs to be modified to capture the customer postal code and also explains about the new T2T rule which needs to be added to populate the risk score for the newly created parameter for the customer postal code in the Risk Rating reasons table during the Algorithm Based Risk scoring.

Rule Name	Add/ Modify	Remarks
CpySnpAdr	Modify	This existing T2T definition needs to be modified to capture the Postal Code of the customer.
		The data should be loaded into the FCT_RA_CUST_ADDRESSES_PRCNG table; the column for the postal code is already present in the table.
New T2T Rule (CCRCalc_PostalCode)	Add	A new rule to be added to populate the data for the New parameter into the Risk Rating reasons table (FCT_RA_RISK_RATING_RSN_PRCNG). During the T2T creation make sure the address type is considered.
		For more clarity on how to populate the data into the Risk rating reasons table, please refer to the 'CCRCalc_OccupationRsns' T2T definition.

- 5. After the New Rule is created, the rule needs to be tagged to the Process through the PR2 Framework.
- Open the 'Risk Assessment Processing' process from the PR2 Framework screen. This process is tagged to the 'Regular Processing' Run.
- Tag the newly created T2T rule (CCCRCalc_PstalCode) into the process, the newly create task should be placed anywhere between the 'CCRCalc_NNS_IP' and 'CCRCalc_CustCCRSmry' tasks.
- After adding the task to the existing process, ensure to set the precedence for this task is set properly.
- After setting the precedence, save the Process.
- The task should also be tagged to the 'Risk Assessment Processing DI' process also. This process is tagged to the 'Deployment Initiation' Run. (The steps are similar to the aforementioned steps)
- 6. After the process is saved successfully,
- The re-saved 'Risk Assessment Processing' process should be tagged to the 'Regular Processing' Run.
 - Untag the Process which is already tagged, and tag the process once again.
 - Save the RUN (Immediate Batch Creation Mode>Create Batch With Run-Rule Tasks>SAVE)
 - Batch will be updated with the new rule added.
- 7. Do a testing of the batch after adding the new task to the batch.
- 8. The new parameter will be displayed in the KYC Case UI during investigations along with other risk parameters.

- 9. Admin UI
- UI for configuring the Contry Postal code can be added to the KYC admin menu (Menu >menu)
- Refer xxxxx user interface as an example.
- Associate a function to the new UI
- Make Menu changes to see the new UI in the administration Menu.
- Map the required function to the Admin Role

NOTE: The newly added Risk Paramter can be enabled/disabled using Menu>Menu - Menu

Accelerated Re-review Rules

Currently, accelerated re-review looks for change log and related to alerts generation. KYC uses Customer Change Log Summary and Account Change Log Summary table for a trigger of accelerated re-review case.

Following are the steps to implement Accelerated Re-review Rules:

- 1. Data Assessment
- Check if the data element is available in business tables.
- Check if the change log captures the data attributes which is to be used for accelerated risk assessment.
- Verify the need to populate the data in the change log through ingestion and BDF data maps.
- 2. Data Model/Ingestion/T2T Changes
- If the data attributes added newly in the change log, then the attributes needs to be added in the following tables depending on if it is a customer or account attribute.
 - Customer Change Log Summary table.
 - Account Change Log Summary table
 - For example, currently the summary table holds the count of changes for a particular change log attribute. For any new change log attribute added, there needs to be a column to hold the data
- After the columns are added in the summary table, ingestion changes to be done to derive the value from change log to the summary table.
- If the actual data of change log is a varchar which is to be looked at and create a case, then the same has to be added in the application accelerated re-review rule table.
- If it is varchar based actual value, from the summary table, pick the customer for whom there is a change and look at the change log table for the actual value and compare it with the application param table. Currently the summary table holds only the count of changes related attributes and not the actual data value. Hence to be inline with the product the above recommendation is provided.
- If there are additions to business tables, the same has to be added in KYC System as well. Like customer or account attributes added newly for accelerated review trigger.
 - Processing tables
 - Main Tables

NOTE: The processing and main tables are more or less identical in their names.

- Currently the processing and the main tables in the KYC system do not replicate the structure of the business tables. Hence verification of the attributes availability in the KYC system is a must.
- T2T which captures the snapshot information to the mail table has to be updated. Refer to *Appendix A*, *"KYC Batches,"* for the snapshot T2T names. The component ID provides details of the rule name.
- Function which moves the data from processing to main tables, does not require updates if we are adding new columns to the existing processing tables.
- It requires if we add a new table in the processing area.
- The new rule needs to be added to the application re-review param table through excel upload. Excel upload template also needs changes if the rule is expecting a change log based on a varchar attribute. Template changes
- This requires changes to the UI which displays the actual value in the Risk Assessment Tab to display the actual value if it is a varchar.
- Create the T2T which is to be similar to the existing ones, depending on whether it is Change log based or Alert based

