# Oracle® Financial Services Compliance Agent Cloud Service User Guide





Oracle Financial Services Compliance Agent Cloud Service User Guide, Release 24.06.01

G13804-01

Copyright © 2000, 2024, Oracle and/or its affiliates.

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

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

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

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

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

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

# Contents

Pre	Preface			
1.1	Audience	1-1		
1.2	Comments and Suggestions	1-1		
1.3	Help	1-1		
1.4	Related Resources	1-1		
Intr	troduction			
2.1	Getting Started	2-1		
2.2	Accessing OFSCA	2-1		
2.3	User Roles and Privileges	2-2		
2	2.3.1 Editing the User	2-5		
2	2.3.2 Deactivating the User	2-5		
Coı	Configuring the Transaction Monitoring System			
3.1	Setting up Jurisdiction Codes, Scenarios, and Thresholds	3-2		
3.2	Designing Custom Scenarios	3-4		
3.3	Mapping Jurisdiction Codes to Segments	3-9		
3.4	Setting up Jurisdiction Codes, Segments, Accounts, Channels, and Limits	3-10		
3.5	Creating an Agent	3-11		
3	3.5.1 Editing An Agent	3-15		
3.6	Reviewing Transaction Monitoring System	3-17		
3.7	Resetting the Transaction Monitoring System	3-21		
Und	derstanding the OFSCA Dashboard			
4.1	Overall System Performance	4-2		
4.2	Segment Performance	4-5		
Rui	nning and Comparing Experiments			
5.1	User Defined Experiment	5-1		
	5.1.1 Selecting the Segment	5-2		



	5.1.2	Selecting an Agent	5-2					
	5.1.3	Copying or Modifying the Control Set	5-3					
	5.1	3.1 Managing Scenarios Threshold Set Name	5-3					
	5.1	.3.2 Managing Account-Transaction Product Constraints (per day)	5-10					
	5.1.4	Monitoring New Offerings	5-12					
	5.1.5	Reviewing the Experiment	5-14					
	5.1	.5.1 Segment Strength	5-14					
	5.2 Gene	erating Experiment from Recommendation	5-16					
	5.2.1	Generating Experiments for Segment	5-17					
	5.2.2	View Analysis	5-19					
	5.3 Com	paring an Experiment	5-21					
	5.4 Com	paring Experiments to Assess Risk of New Offerings	5-24					
	5.4.1	Risk of New Offering-Account Type	5-24					
	5.4.2	Risk of New Offering-Transaction Product	5-26					
6	Modifyir	Modifying the System						
	6.1 Addir	ng an Account	6-2					
	6.2 Addir	ng a Transaction Product	6-4					
7	Navigati	ing the OFSCA UI						
	7.1 Mana	aging Users	7-1					
	7.2 Crea	ting a New User	7-2					
	7.3 Mana	aging Transaction Monitoring Performance	7-2					
	7.4 Crea	ting a New Experiment	7-3					
	7.5 Mana	aging Segments	7-3					
	7.6 Mana	aging Experiments	7-4					
	7.7 Mana	aging Offerings Setup	7-5					
	7.8 View	ing Scenario Setup	7-6					
	7.9 Usinç	g Documents	7-6					
8	Underst	anding the OFSCA Metrics						
	8.1 Segn	nent Strength Score	8-1					
	8.2 Syste	em Strength Score	8-1					
	8.3 Segn	nent Performance	8-2					
	8.4 Scen	ario Performance	8-2					
	8.5 Acco	unt Vulnerability	8-2					
		nel Vulnerability	8-3					



## 9 Appendix

9.1	How to Calculate the Target Amount	9-1
9.2	Sample Template	9-1
9.3	How to Calculate the CIB Parameter	9-2
9.4	Aggregates List	9-3
Glossary		



1

#### **Preface**

FCCM Cloud Service Compliance Agent User Guide describes how to use Compliance Agent Application.

#### 1.1 Audience

This document is intended for users who are responsible for provisioning and activating Oracle FCCM Cloud Service Compliance Agent Cloud Service or for adding other users who would manage the services, or for users who want to develop Oracle Cloud applications.

# 1.2 Comments and Suggestions

Please give us feedback about Oracle Applications Help and guides! You can send an e-mail to: https://support.oracle.com/portal/.

### 1.3 Help

Use Help Icon to access help in the application. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons. Not all pages have help icons. You can also access the https://docs.oracle.com/en/ to find guides and videos.

#### 1.4 Related Resources

For more information, see these Oracle resources:

- Oracle Public Cloud: http://cloud.oracle.com
- Community: Use https://community.oracle.com/customerconnect/ to get information from experts at Oracle, the partner community, and other users.
- Training: Take courses on Oracle Cloud from https://education.oracle.com/oracle-cloud-learning-subscriptions.

2

#### Introduction

OFS Compliance Agent (OFSCA) is an AI-powered experimentation platform that measures the performance of your Transaction Monitoring System (TMS), identifies areas for improvement, optimizes the system's performance, and provides evidence to support your decision-making.

#### Topics:

- Getting Started
- Accessing OFSCA
- · User Roles and Privileges

## 2.1 Getting Started

To use FCCM Cloud Service, you need to activate the Cloud Service. Once the service is activated, you can onboard application users to access the subscribed cloud services. For more information, see the Get Started with Oracle Financial Services Crime and Compliance Management Cloud Service.

### 2.2 Accessing OFSCA

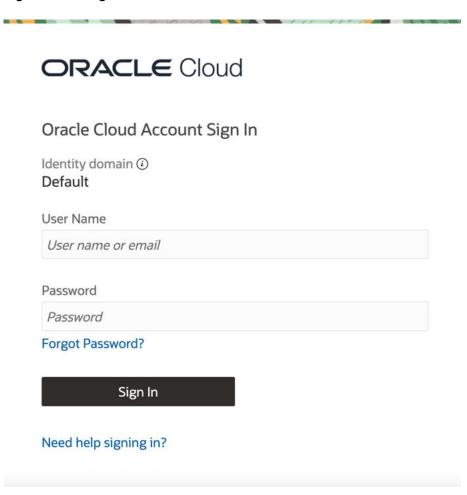
Once the Compliance Agent application is configured, you can access it by following these steps.

To access Compliance Agent, follow these steps:

1. Enter the application's URL in your browser to open the Login window.



Figure 2-1 Login Window



- 2. Enter your login credentials (User Name and Password) to sign in.
- 3. Click on **Sign In** to access the Compliance Agent application.

### 2.3 User Roles and Privileges

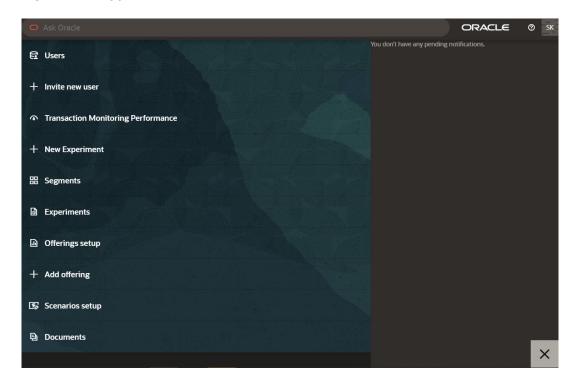
#### Topics:

- · Editing the User
- Deactivating the User

The Compliance Agent application utilizes a role-based access control model, meaning that users are granted specific roles to access different application functionalities. To create a new user and assign a role type in the Compliance Agent application, an administrator user can follow these steps:

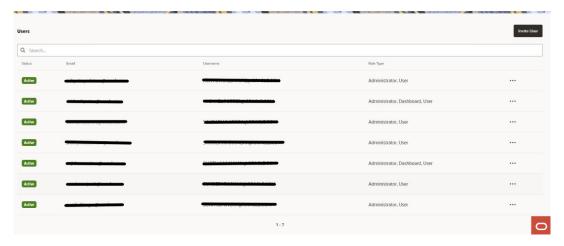
- Click Open Ask Oracle to display the Ask Oracle window. The following window is displayed.
- 2. Click Users menu to display the Users window. The following window is displayed

Figure 2-2 Application Menu



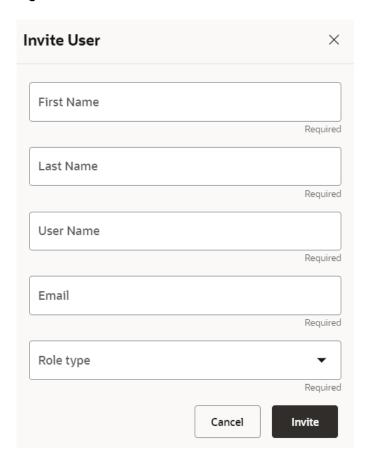
3. Click **Users** menu to display the Users window. The following window is displayed.

Figure 2-3 Users



4. Click **Invite User** to create a new user. The following window is displayed.

Figure 2-4 Invite Users



- Enter the following details:
  - First Name: Enter the First Name of the user
  - · Last Name: Enter the Last Name of the user
  - · User Name: Enter the name of the user
  - · Email: Enter the Email of the user
- 6. Select the required **Role** type from the drop-down list. The available options are Admin and User
  - a. Admin: Admin can add other users to the system and assign them rights. An admin can also access the application
  - **b.** User: User can access the application.



The Invite User window is displayed only if you are logged in as Administrator.

7. Click **Invite** to create the required user for the system.

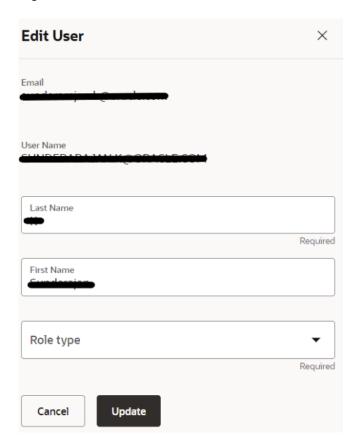
#### 2.3.1 Editing the User

An administrator user can edit the user information of a selected user in the Compliance Agent application.

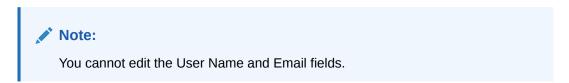
To edit the user information, follow these steps:

1. Click **Action** icon of the selected user in the User window and then click Edit user. The following window is displayed.

Figure 2-5 Edit User



2. Edit the required fields.



#### 2.3.2 Deactivating the User

An admin user can deactivate the user information of a selected user in the Compliance Agent application.

To deactivate the selected user, follow these steps:

1. Click **Action** icon of the selected user in the User window and then click Deactivate user. The confirmation window is displayed.

Figure 2-6 Deactivate Users



2. Click **Deactivate** to deactivate the selected user. Once deactivated, the user cannot log in to the system



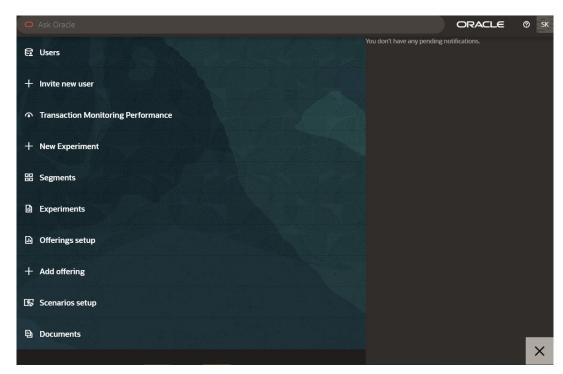
# Configuring the Transaction Monitoring System

To configure your transaction monitoring system, follow these steps:

Click Open Ask Oracle

 Open Ask Oracle to display the Ask Oracle window. The following window is displayed.

Figure 3-1 Application Menu



Click Transaction Monitoring Performance in the above menu to display the Configure your Transaction Monitoring System window. The following window is displayed.

Figure 3-2 Configure Transaction Monitoring System



3. Click **Start** to configure your transaction monitoring system.

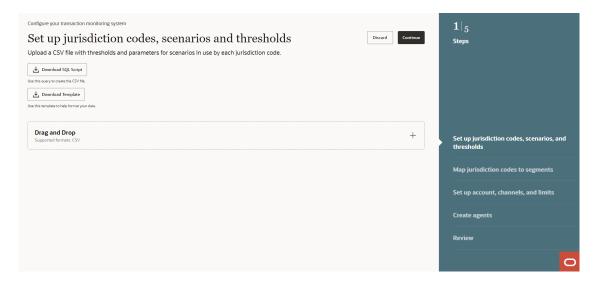
#### Topics:

- Setting up Jurisdiction Codes, Scenarios and Thresholds
- Mapping Jurisdiction Codes to Segments
- Setting up Jurisdiction Codes, Segments, Accounts, Channels, and Limits
- Creating an Agent
- Reviewing your Transaction Monitoring System

# 3.1 Setting up Jurisdiction Codes, Scenarios, and Thresholds

This section outlines the steps to duplicate your transaction monitoring system in OFSCA. You'll specify jurisdiction codes or segments at your institution, choose the scenarios that will be monitored, and set thresholds for each scenario.

Figure 3-3 Set up Jurisdiction Codes, Scenarios, and thresholds



To set up jurisdiction codes, scenarios and thresholds, follow these steps:



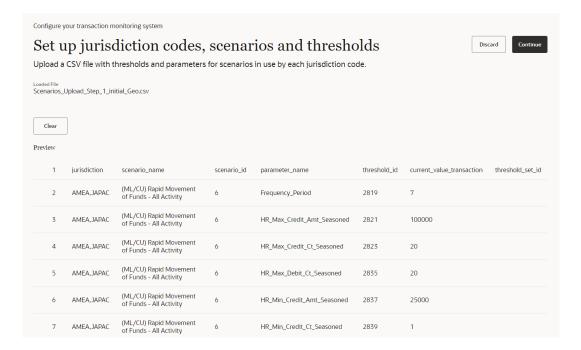
Click **Download SQL** Script to download SQL script and execute the script against data in Oracle's Financial Crime Data Model to extract the required data

 Click **Download Template** to download the template and format the extracted data into CSV file.nn



- You should not modify jurisdiction, scenario\_name, and scenario\_id in the CSV file.
- If you are not using the default risk tiers (RR/MR/HR) at your institution, each
  of these thresholds (for example, Min\_Amt\_RR, Min\_Amt\_MR and
  Min\_Amt\_HR) should be set to the same value.
- 2. To upload the CSV file with the necessary data, simply drag and drop it into the designated field or click on the icon to open the file selector dialog box and choose the file. Once the CSV file is loaded, the following window is displayed.

Figure 3-4 Uploaded CSV File







You can remove the uploaded CSV file if required by using the Clear button.

Click Continue to navigate to the Map jurisdiction codes to segments step.

Or Click **Discard** to discard the current activity and return to the Configure your Transaction Monitoring System window. Click **Start** to start the Configure your Transaction Monitoring System from the initial steps again for configuration

### 3.2 Designing Custom Scenarios

Some FI's customize or modify Oracle's Out of the Box scenarios or use purpose built scenarios for their specific needs. OFSCA's customs scenario authoring functionality allows you to include such scenarios in OFSCA's simulator allowing you to get an accurate assessment of your entire transaction monitoring system.



Scenarios are assumed to follow an if-then-else logic for alerting similar to Oracle's Out of the Box scenarios.

In this section, you will design custom scenarios in Oracle's Transaction Monitoring Solution for segments at your institution.

#### Note:

You may skip creating a custom scenario in the initial configuration by using the Skip button.



To design a new custom scenario during initial configuration, follow these steps:

1. Click **Download Template**. A JSON template is downloaded.



Currently, a single JSON file can be used to configure a scenario for only one risk segment. If a scenario has to be configured for three risk segments, for example, BCAP\_RR, BCAP\_MR, BCAP\_HR, three different JSON files are required with three different scenario names. For sample files, see **Sample Template** 

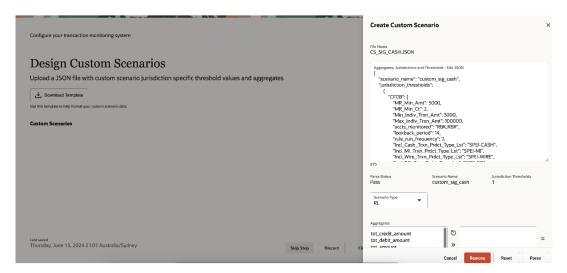
Enter the Scenario Name, relevant jurisdiction that the scenario monitors, Threshold name, Lookback period, Rule run frequency, and Account Types to be monitored in the JSON template.



You must use only those Jurisdiction values in the JSON template that are available in the CSV file that has been uploaded in the Setting up Jurisdiction Codes, Scenarios, and Thresholds section.

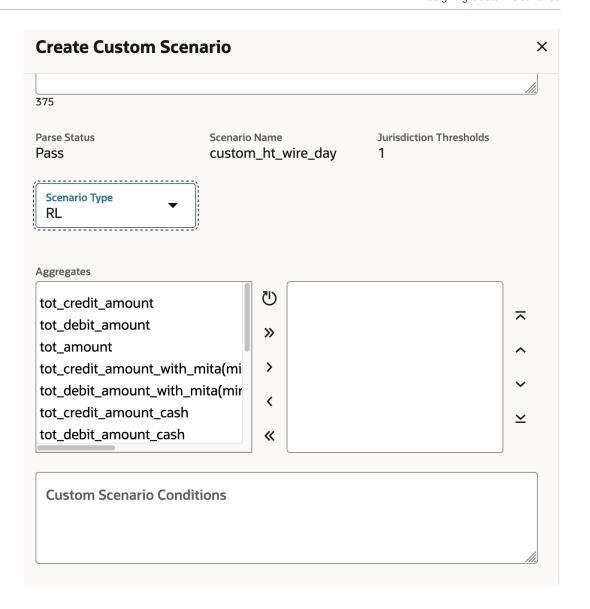
3. Click **Create Scenario**. Drag and Drop the required JSON template. The selected JSON template details are displayed.

Figure 3-5 Create Custom Scenario



- Select the scenario type RL or HT from the Scenario Type drop-down list. The list of aggregates for RL and HT are available in the Aggregates List section.
  - RL RL stands for "Risk and Liability" experiments, which are used to evaluate the
    overall strength and performance of the system. Scenarios added using this option will
    be used to assess the system's performance and identify any potential risks or
    liabilities.
  - HT HT stands for "Human Trafficking" experiments, which are used to evaluate the system's performance specifically against the Human Trafficking typology. Scenarios added using this option will be used to assess the system's effectiveness in detecting and addressing specific Human Trafficking risks.





- 5. Based on your selection, a relevant list of aggregates is displayed. Select and move the required aggregates to the right-hand side box.
- 6. Enter scenario conditions in the Custom Scenario Condition box using thresholds and aggregates.

#### Note:

When entering scenario conditions, only a single space must be used between each term in the expression. It is mandatory even when parentheses are used.

- Correct: (Total\_Trxn\_Amt >= RR\_Min\_Total\_Amt ) and (Total\_Trxn\_Ct >= RR\_Min\_Total\_Ct )
- Incorrect: (Total\_Trxn\_Amt>=RR\_Min\_Total\_Amt) and (Total\_Trxn\_Ct>=RR\_Min\_Total\_Ct)
- Click Parse to validate the condition. If the validation is successful, the parsing will be passed.

- 8. Click **Accept** to add the newly created scenario. This scenario will be listed on the Custom Scenario page.
- If you want to modify a newly created scenario, click Edit and modify information based on your requirements.

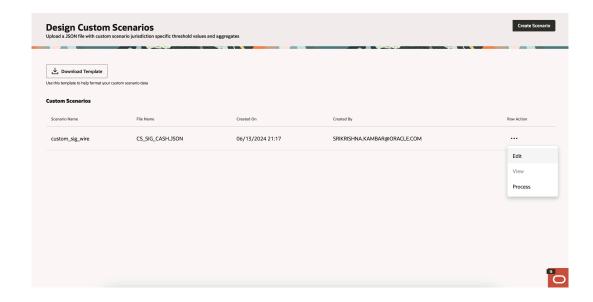


**10.** You can also create custom scenarios using the Oracle Ask menu.

Figure 3-6 Create Scenario Using Oracle Ask Page



**11.** On the Custom Scenario page, click **Create Scenario**. The Create Scenario dialog is displayed. Repeat Step-3 to Step-9.

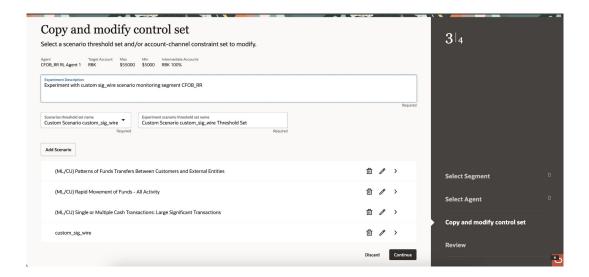


**12.** Click ... **Option** Icon and then click **Process**. A new custom scenario is created. You can also modify the scenario using the **Edit** option.

Note:

Once you process the scenario, you cannot edit it.

The New Scenario will be available as part of a New Threshold Set with the current Production Controls, which can be used while creating experiments in that segment.



You can perform the following activities using the Row Action.

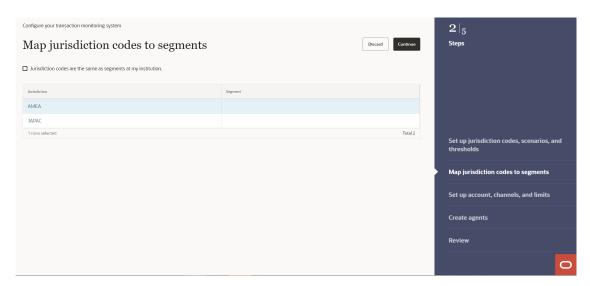
- **Edit** The Edit option allows you to modify the existing information of a scenario. This option is used when you need to make changes or updates to the scenario's details.
- View The View option allows you to view the scenario without making any changes.
   This option is useful when you want to review the scenario or gather information from it.
- Process The Process option is used to create a custom scenario. This option enables you to define and set up a new scenario according to your specific requirements.



# 3.3 Mapping Jurisdiction Codes to Segments

In this section, you will map jurisdiction codes in Oracle's Transaction Monitoring Solution to segments at your institution.

Figure 3-7 Map Jurisdiction Codes to Segments



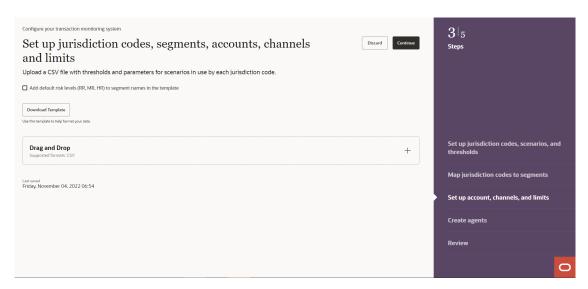
To map jurisdiction codes to segments, follow these steps:

- **1.** Enter the required name in the Segment field.
  - Or Enable the checkbox jurisdiction codes are the same as segments at my institution if segments are equivalent to jurisdiction codes
- Click Continue to navigate to the Setup jurisdiction codes, segments, accounts, channels and limits step.

# 3.4 Setting up Jurisdiction Codes, Segments, Accounts, Channels, and Limits

In this section you will configure the various products (accounts and channels) offered to various segments within your institution. You will also specify any limits or restrictions imposed on these products for each segment.

Figure 3-8 Set up Account, Channels, and Limits



To set up an account, channels, and limits, follow these steps:

- Enable the Add default risk levels (RR, MR, HR) to segment names in the template check box if your institution uses Oracle's default risk tiers - RR, MR, and HR and if each customer segment at your institution is mapped to one of these risk tiers.
- Click Download Template to download the template and populate the template with required data

Note:

- You can update details in the Channel and Withdraw\_Limit columns as per requirement.
- Specify the channel name as CASH, MI, and WIRE in the Channel column.
- Withdrawal limits refer to hard limits on how much funds can be withdrawn from an account type through a specific channel.
- 3. Drag and drop the CSV file into the Drag and Drop field or click icon to open the file selector dialog box and select the required file. Once the CSV file is loaded, the following window is displayed.



Configure your transaction monitoring system Set up jurisdiction codes, segments, accounts, channels and limits Upload a CSV file with thresholds and parameters for scenarios in use by each jurisdiction code. Loaded File
Constraints\_Upload\_Step\_3\_initial\_set\_up\_Ul.csv Clear JRSDCN\_CD SEG\_NAME ACCT\_TYPE CHANNEL WITHDRAWAL\_LIMIT AMEA AMEA\_HR CBK Cash 10000 AMEA AMEA\_HR Cash AMEA\_HR AMEA RBR MI 3000 AMEA\_MR 3500 AMEA AMEA\_MR RBK WI 2000 AMEA\_MR RBR Cash 2600 AMEA AMEA\_RR CBK Cash 10000 AMEA AMEA\_RR RBK 4500

Figure 3-9 Uploaded CSV file to Set up Account, Channels, and Limits

#### Note:

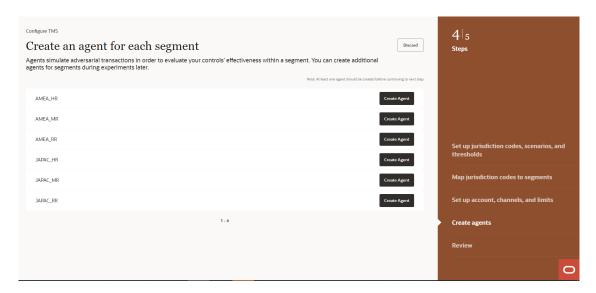
- If a channel does not have a withdrawal limit, this can be indicated as NA instead of a number.
- You can remove the uploaded CSV file if required by using the Clear button.
- 4. Click **Continue** to navigate to the Create an agent for each segment step.

# 3.5 Creating an Agent

This section describes how to create an agent for each segment. Whenever a new agent is created, by default, a Human Trafficking (HT) agent is created. You can create a new agent for the following situations:

- If the expected activity of the segment changes and hence the target amount has to change.
- When the distribution of accounts used by customers in the segment changes and hence distribution of accounts changes.

Figure 3-10 Create an Agent



To create an agent, follow these steps:

 Click Create Agent to create an agent for each segment. The New Agent window is displayed



Figure 3-11 New Agent



- Enter the Agent Description. The description can be used to note any specific products or channels the agent has access to. A good description should help you determine if this agent can be reused in future experiments.
- **3.** Select the required option from the Target Account drop-down list. In this example, the available options are RBK, CBK, and RBR.
- 4. Enter the Maximum and Minimum amount for the segment in the respective fields.



#### Note:

- The maximum and minimum should be equal to amounts that are in the unusual range for the segment.
- To calculate target amounts, see the suggested query in the How to Calculate the Target Amount section.
- Ensure that the Max Target Amount is set such that the granularity (Max Target Amount/20) is lower than any limits that have been set. E.g., if the limit for a channel is \$ 10,000 then the Max Target Amount should be lower than \$200,000.
- 5. Enter the amount in the following fields:
  - Average monthly credit amount
  - Peak monthly credit
  - · Peak monthly debit
  - High Risk Geography monthly credit
  - High Risk Geography monthly debit
  - · Standard deviation of monthly credit
  - Standard deviation of monthly debit

#### Note:

- Historical Activity (per month) field is displayed only if the CIB scenario is loaded in the system.
- To calculate CIB parameter, see the suggested query in the How to Calculate the CIB Parameter section.
- 6. Select the required Intermediate Account from the drop-down list.

#### Note:

You can create a maximum of four intermediate accounts for each segment.

7. Select the required Distribution percentage from the drop-down list. The distribution should approximately reflect the product portfolio for the chosen segment. If a segment has more than four products, the four most widely used or four most riskiest products can be considered.

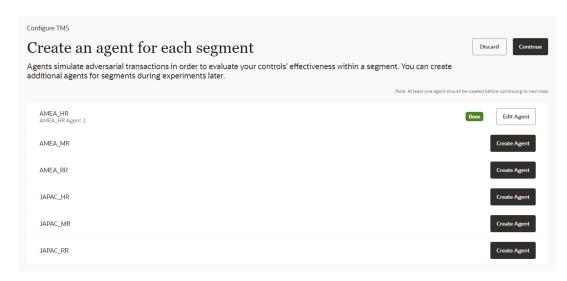
#### Note:

The total distribution percentage of all the intermediate accounts should be equal to 100 percentage.



- 8. Click  ${\bf Close}^{\bigotimes}$  icon to close the Intermediate Account for the segment.
- 9. Click Add Another to add another intermediate account for the segment.
- 10. Click **Create Agent** to create an agent. The following window is displayed.

Figure 3-12 Agent Created



Similarly, you can create an agent for the remaining segments.

11. Click Continue to navigate to the Review step.

#### 3.5.1 Editing An Agent

This section describes how to edit the created agent for each segment if required.

To edit the created agent, follow these steps:

Click Edit Agent to edit the required fields. The following window is displayed.



Figure 3-13 Edit Agent

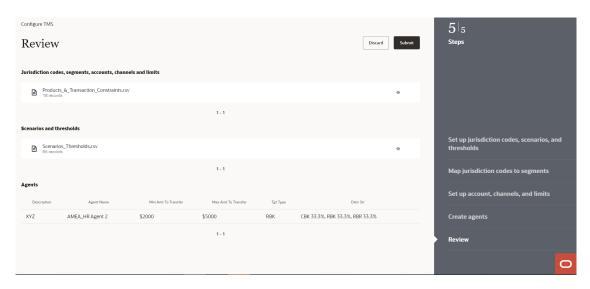


2. Click **Save Agent** to save any modifications made to the agent.

# 3.6 Reviewing Transaction Monitoring System

In this section, you can view the uploaded data and created agents for each of the segments.

Figure 3-14 Review the System



1. Click View icon in Jurisdiction codes, segments, accounts, channels, and limits to view the uploaded products and transaction constraints. The following window is displayed.



X **View Uploaded Products & Transaction Constraints** File contents Cancel Jurisdiction code Channel Withdrawal limit Account Type Segment name AMEA 10000 CBK AMEA\_HR Cash AMEA\_HR AMEA Cash 2500 RBK RBR AMEA\_HR AMEA MI 3000 CBK AMEA\_MR AMEA MI 3500 RBK AMEA\_MR AMEA WI 2000 RBR AMEA 2600 AMEA\_MR Cash CBK AMEA\_RR AMEA Cash 10000 RBK MI 4500 AMEA\_RR AMEA RBR AMEA\_RR AMEA 5000 MI CBK JAPAC\_HR JAPAC WI 4500 RBK JAPAC\_HR JAPAC 1200 RBR JAPAC\_HR JAPAC Cash 3500

Figure 3-15 Uploaded Products and Transaction Constraints

2. Click Cancel to exit the window.



3. Click View icon in Scenarios and thresholds to view the uploaded scenario thresholds. The following window is displayed.

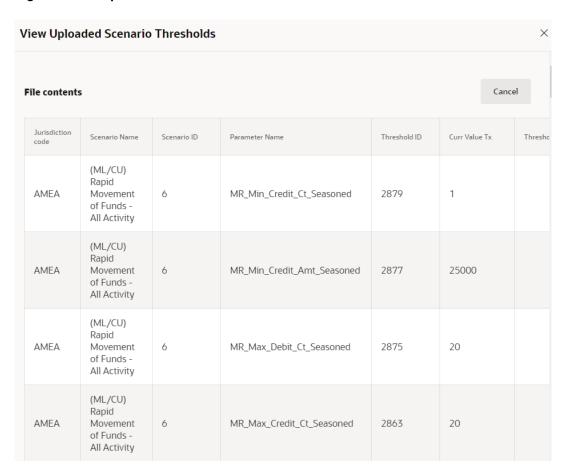
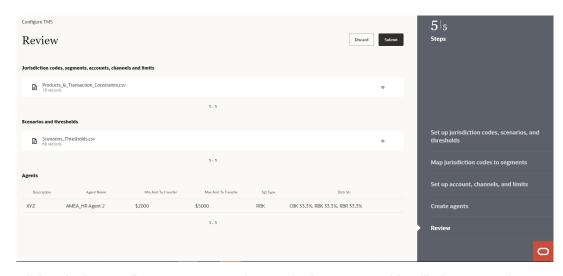


Figure 3-16 Uploaded Scenario Thresholds

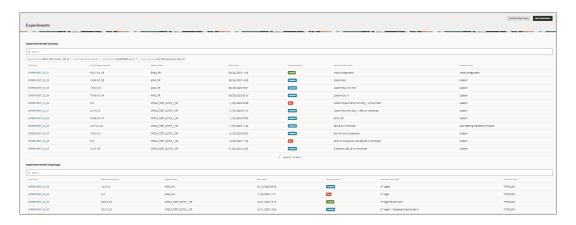
Click Cancel to exit the window.

Figure 3-17 Review the System



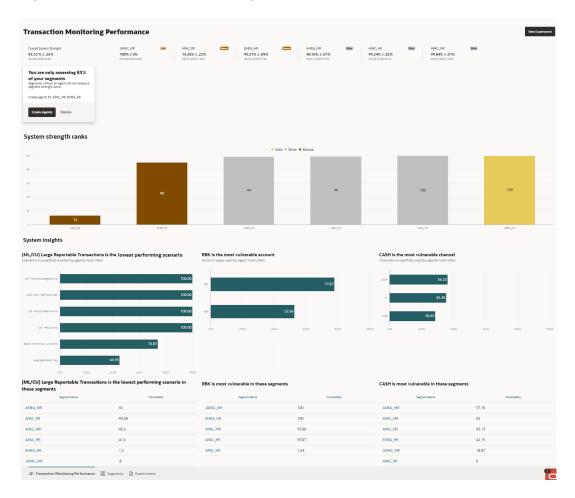
- Click Submit to configure your transaction monitoring system. This will trigger experiment of type "Initial Set Up" for each of the segments you have configured.
- 6. Navigate to Experiments tab and you can view the created experiment is in In progress status as shown below:

Figure 3-18 Experiments



Once the experiment is completed, the status of the experiment will change from "In Progress" to "Completed". If the experiment has run successfully, the dashboard will be updated as shown below:

Figure 3-19 Transaction Monitoring Performance



# 3.7 Resetting the Transaction Monitoring System

This section describes how to reset your transaction monitoring system configuration in OFSCA.

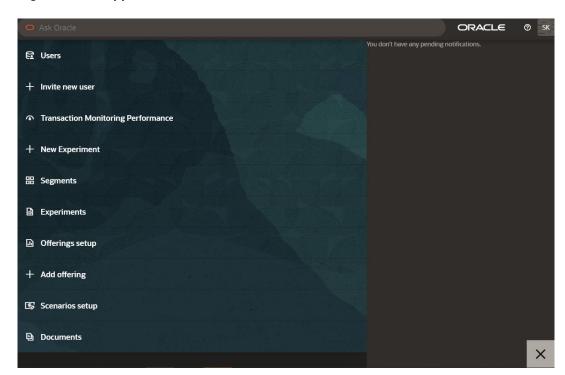
To reset the system and initial configuration, follow these steps:

1. Click



Open Ask Oracle to display the Ask Oracle window. The following window is displayed.

Figure 3-20 Application Menu



Click **Documents** menu to display the Documents window. The following window is displayed.

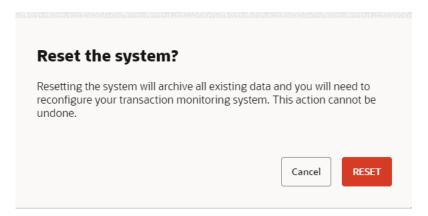
Figure 3-21 Documents Menu





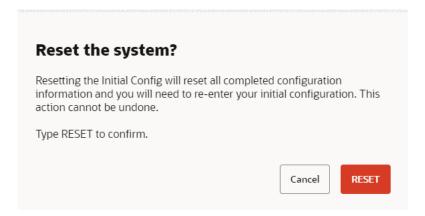
Click Reset System to reset your transaction monitoring system. The confirmation window is displayed.

Figure 3-22 Reset System



- 4. Click **RESET** to reset the system. It will archive all the existing data and you need to reconfigure your transaction monitoring system. Or Click **Cancel** to cancel the action.
- 5. Click **Reset Initial Configuration** in the Documents window to reset the initial configuration. The confirmation window is displayed.

Figure 3-23 Reset the Initial Configuration



Click RESET to reset the initial configuration. It will reset all the completed configuration information and you need to reconfigure your initial configuration. Or Click Cancel to cancel the action. 4

# Understanding the OFSCA Dashboard

This section provides an overview of the OFSCA performance monitoring dashboard, including its components and functionalities.

#### Topics:

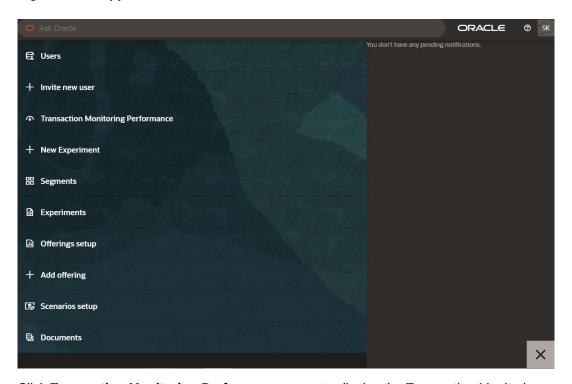
- Overall System Performance
- Segment Performance

This section describes the components available in the OFSCA performance monitoring dashboard

To access the Transaction Monitoring Performance dashboard, follow these steps:

Click Open Ask Oracle to display the Ask Oracle window. The following window is displayed.

Figure 4-1 Application Menu



Click Transaction Monitoring Performance menu to display the Transaction Monitoring Performance dashboard window. The following window is displayed.

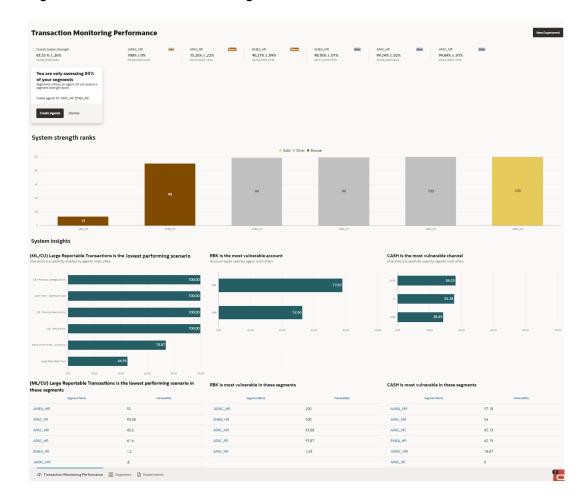


Figure 4-2 Transaction Monitoring Performance

# 4.1 Overall System Performance

This metric, displayed on the Overall System Strength component of the Transaction Monitoring System, indicates the general strength of your institution's segments, with higher values being more desirable than lower ones.

**Overall System Strength**: Displays the overall strength of the Transaction Monitoring System across all your institution's segments. For this metric, a higher value is preferable to a lower value.

Figure 4-3 Overall System Strength



Individual Segment Strength: Displays the strength of each individual segment

Figure 4-4 Individual Segment Strength



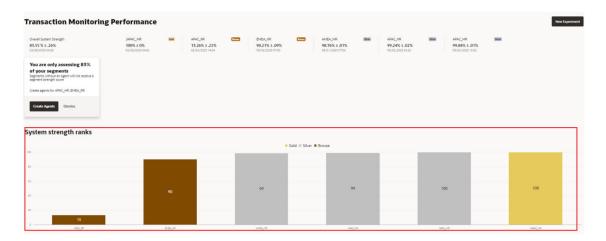
**System Strength ranks**: The System Strength Ranks component displays each segment's strength and confidence rankings, which can be viewed by hovering over the specific segment. Based on the performance of the TMS for a given segment, it is categorized as follows:

- Gold: The segments in the top third in terms of performance are in the Gold category.
- Silver: The segments in the middle third in terms of performance are in the Silver category.
- **Bronze**: The segments in the bottom third in terms of performance are in the Bronze category.

Ideally, the segments that are considered high risk by an institution should be in the gold category, while segments that are low risk can be in the bronze or silver category.

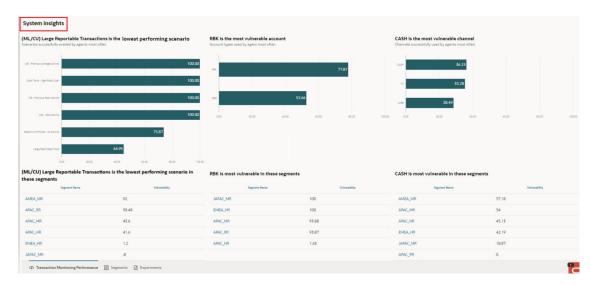


Figure 4-5 System Strength ranks



**System Insights**: Displays the overall system level insights.

Figure 4-6 System Insights

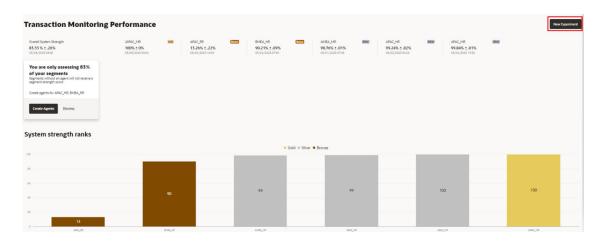


- <(ML/AC) CIB: High Risk Geography Activity> is the lowest performing scenario: The
  system highlights the scenario with the lowest performance and identifies the segments
  that require attention. We recommend addressing this scenario in the listed segments.
  Access the dashboard for the respective segment by clicking the hyperlink provided.
- <RBR> is the most vulnerable account: The system highlights the most susceptible
  account type and identifies the segments where the account type is most vulnerable. We
  recommend addressing any monitoring gaps related to this account type in the listed
  segments. Access the dashboard for these segments by clicking on the provided hyperlink.
- <WIRE> is the most vulnerable channel: The system highlights the most vulnerable communication channel and identifies the segments where the channel is at the highest vulnerable. We recommend addressing any monitoring gaps related to this channel in the listed segments. Access the dashboard for this segment by clicking on the provided hyperlink.



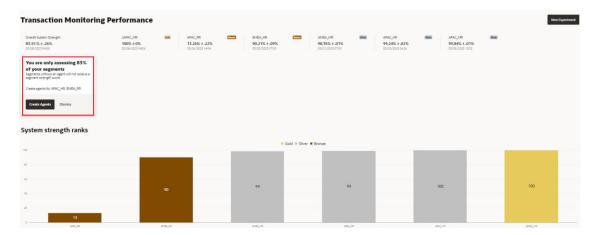
**New Experiment**: You can create a new user defined experiment. For more information, see the User Defined Experiment section.

Figure 4-7 New Experiment



**Create Agents**: You can create an agent for the segments which is not created during the initial configuration. For more information, see the Creating an Agent section.

Figure 4-8 Create Agents



# 4.2 Segment Performance

You can view the individual segment dashboard as follows:

 Click on the individual segment <APAC\_MR> at the top of the dashboard to view the individual segment dashboard. The following window is displayed.

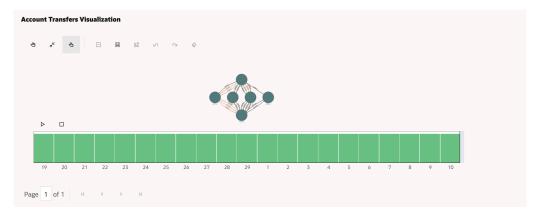


Figure 4-9 Segment Dashboard



- 2. The segment dashboard contains the following:
  - Scenario Performance: The scenario performance metric measures the level of resistance provided by scenarios against an intelligent adversarial agent. A high value of the performance metric indicates significant resistance offered by the scenario, which alerts on any attempts to move money through your institution by the agent. Based on performance, the scenarios are bucketed into three categories as follows:
    - Gold: The scenarios in the top third in terms of performance are in the Gold category.
    - Silver: The scenarios in the middle third in terms of performance are in the Silver category.
    - Bronze: The scenarios in the bottom third in terms of performance are in the Bronze category. Tuning one of the low performing scenarios in the Bronze category is one way to improve performance of the segment.
  - Account Transfers Visualization: This option allows you to visualize the episodes
    generated by the agent to evade an institution's TMS. This will allow institutions to
    understand the nature of these patterns and determine if they present a material risk to
    the institution.

Figure 4-10 Account Transfers Visualization



Account Vulnerability: The account vulnerability metric identifies the account types
most susceptible to exploitation by an intelligent agent to transact money through your
financial system. A high value for this metric indicates that the agent prefers this
specific account type while moving money through your institution.



- Channel Vulnerability: The channel vulnerability metric identifies the channels most susceptible to exploitation by an intelligent agent to transact money through your financial system. A high value for this metric indicates that the channel is the preferred instrument the agent uses to move money through your institution. Tuning scenarios and implementing controls that monitor this specific channel is recommended to address any shortcomings in your transaction monitoring system.
- System Experiment: Experiments to assess the performance of the TMS holistically for the chosen segment.
- Typology: Experiment to show how well the system performs against specific typologies.

For more information about Recommendations to increase segment strength, see the Generating Experiment from Recommendation section.

3. For more information on these metrics, see the Understanding the OFSCA Metrics section.



# Running and Comparing Experiments

You can run the experiment in the following modes:

- User Defined Experiment
- Generating Experiment from Recommendation

You can compare two experiments as explained below:

Comparing an Experiment

## 5.1 User Defined Experiment

This section provides a guide on creating and executing customized experiments to validate any hypotheses you may have. Conducting these experiments allows you to simulate the effects of changes made to your transaction monitoring system. In turn, this enables you to carry out thorough what-if analysis, evaluate the impact of various decisions and make the most informed decisions accordingly.

#### Topics:

- · Selecting the Segment
- Selecting an Agent
- Copying or Modifying the Control Set
- Monitoring New Offerings
- Reviewing the Experiment

#### **Generating New Experiment**

To generate a new experiment, follow these steps:

 Click New Experiment on the dashboard to generate a new experiment. The New Experiment window is displayed.

Figure 5-1 New Experiment



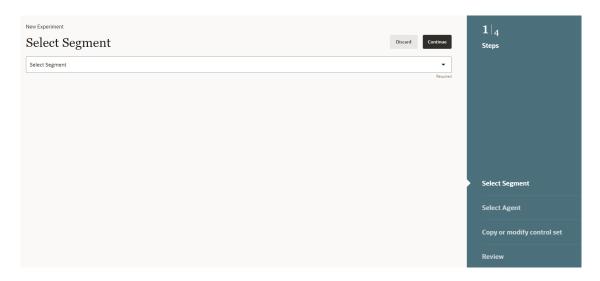


- Click Start to start configuring the new experiment. The Select Segment window is displayed.
  - If an experiment has been configured but has not been executed then dialog appears.
  - Click Continue to continue with the configured data for the experiment or click
     Discard to discard the configured data and the Select Segment window is displayed.

## 5.1.1 Selecting the Segment

To select the segment, follow these steps:

Figure 5-2 Select Segment

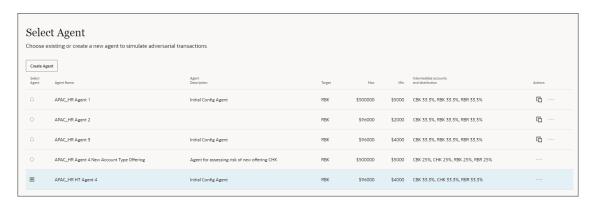


- Select the required segment from the Select Segment drop-down list.
- Click Continue to navigate to the Select Agent step. Or
   Click Discard to discard the current activity and return to the New Experiment window and again click Start to start the New Experiment from the initial steps.

## 5.1.2 Selecting an Agent

You can select from one of the available agents or create a new agent.

Figure 5-3 Select Agent





To select/create an agent, follow these steps:

Select the agent that is created during the initial setup on the Select Agent option. You
can also select experiment for HT agent. Or

If you want to create a new agent then click **Create Agent**. The following window is displayed.

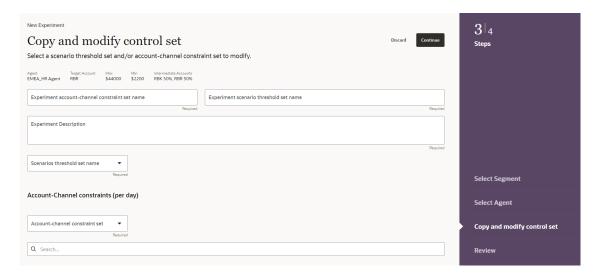
For information about how to create an agent, see the Creating an Agent section. Once the agent is created, then select the created agent.

2. Click Continue to navigate to the Copy and modify control set step.

## 5.1.3 Copying or Modifying the Control Set

This section demonstrates how to specify the controls (scenario thresholds, account transaction product constraints) you want to evaluate in an experiment.

Figure 5-4 Copy / modify the Control Set



Enter/select the details in the following fields:

- Experiment account-transaction product constraint set name: Select the drop-down list from the Account-transaction product constraint set to define the name.
- **Experiment scenario threshold set name**: Enter the Threshold Set Name. The name must be unique to a particular threshold set.
- Experiment Description: Enter the description of the Experiment. This field is optional, but a good description can be useful for audit purposes.

#### 5.1.3.1 Managing Scenarios Threshold Set Name

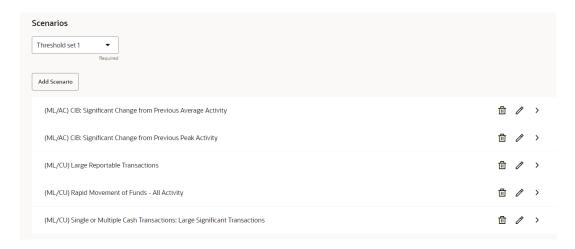
Use this section to add scenarios, add and edit threshold values in the Copy and Modify Control Set page.

To add Scenarios threshold set name, follow these steps.

- On the Copy and Modify Control Set page, go to Scenarios threshold set name field.
- 2. Select the required scenario threshold set you want to use or modify. The Add Scenario button allows you to add new scenarios to your control set.



Figure 5-5 Scenario

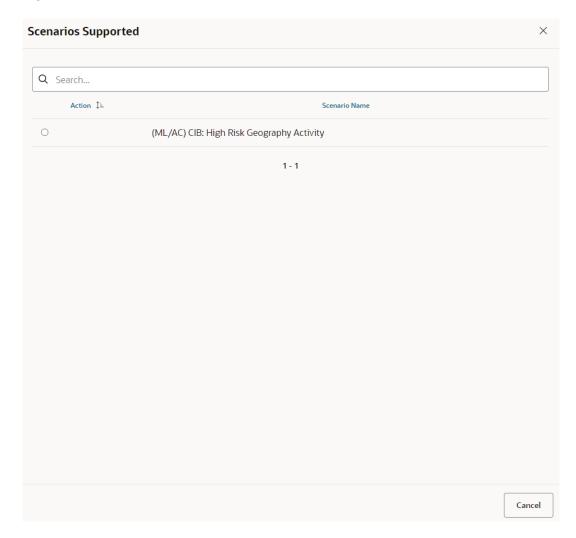


You can perform the following:

Click Add scenario to add a new scenario for the respective threshold set. The following window is displayed

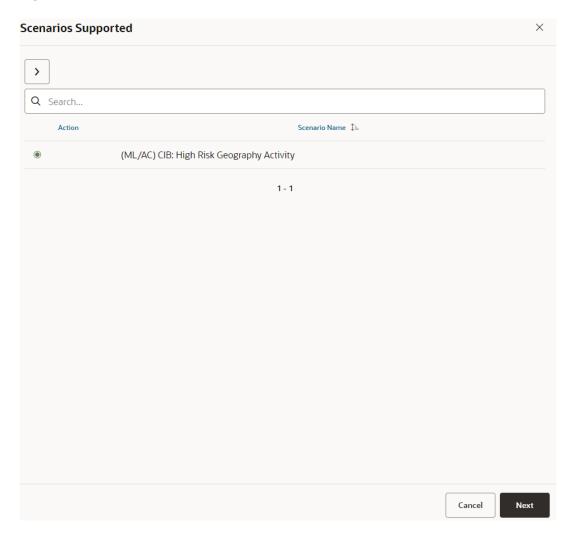


Figure 5-6 Add Scenario



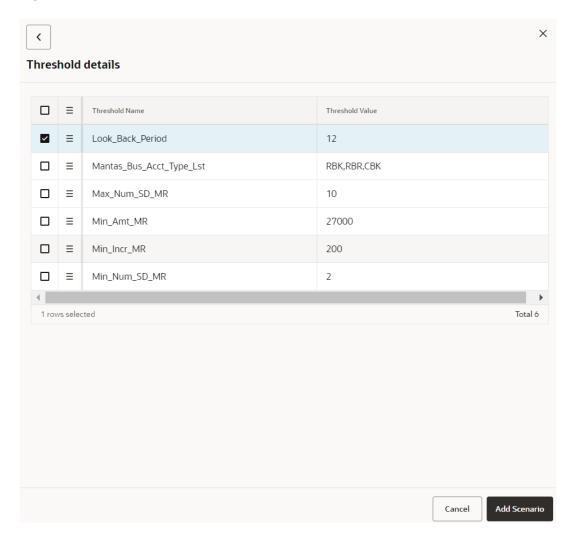
- a. Search the required scenario in the Search box.
- b. Click on the **Action** option of the required scenario to be added to the threshold set.

Figure 5-7 Selected Scenario



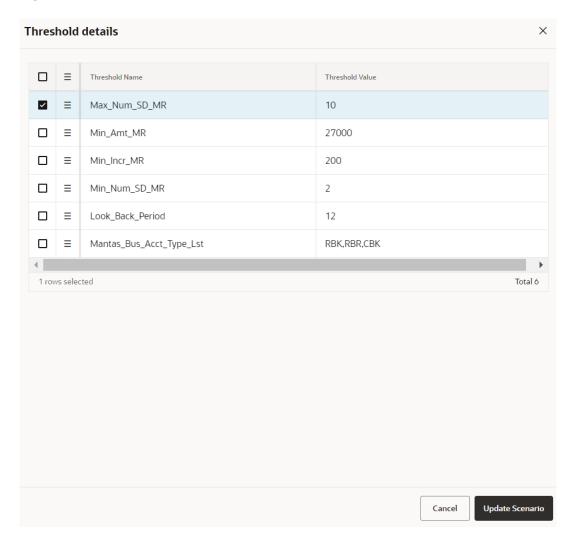
a. Click **Navigation** icon window is displayed or click **Next** to view the threshold details. The following

Figure 5-8 Threshold Details



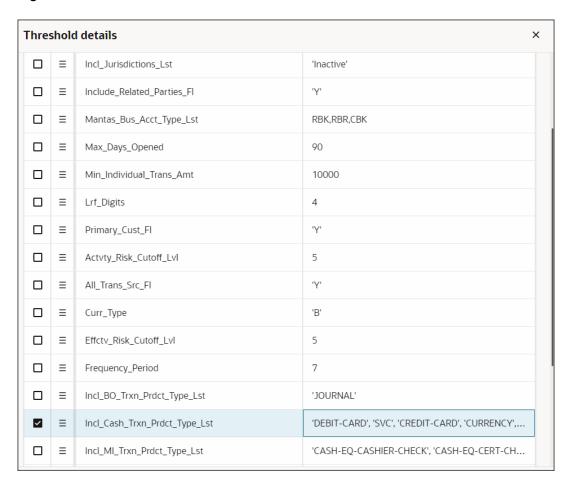
- a. Double-click on the required Threshold Value field and then edit the threshold value.
- b. Click Add Scenario. The scenario is added to the respective threshold set.
- 4. Click **Delete** icon to delete the selected scenario.
- 5. Click **Edit** icon to edit the selected scenario. The following window is displayed.

Figure 5-9 Edit a Scenario



a. Double-click on the required Threshold Value field and then edit the threshold value.

Figure 5-10 Threshold Value



- a. Click **Update Scenario** to modify the information
- **6.** Click **Navigation** icon to view the scenario information as follows:

Figure 5-11 Scenario Information



## 5.1.3.2 Managing Account-Transaction Product Constraints (per day)

Use this section to add and edit account transaction details in the Copy and Modify Control Set page.

When a new account or transaction product is added to a segment, it is necessary to Select the required option from the drop-down list. The account types will be displayed based on the selected Account-transaction product constraint set.

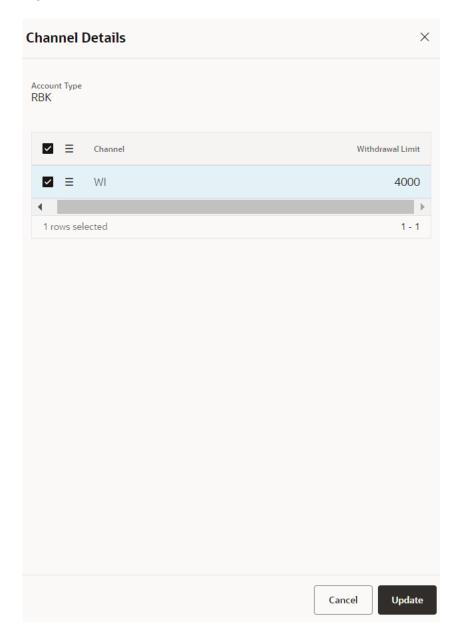
Figure 5-12 Account-transaction product constraint set



You can perform the following:

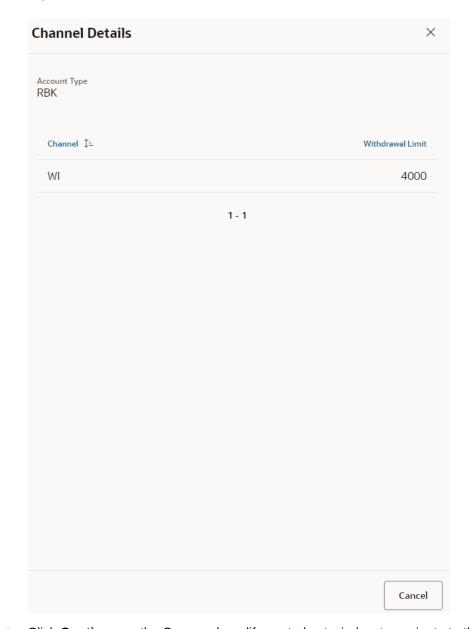
- Search the account type in the Search box.
- 2. Click **Edit** icon to edit the selected account type. The following window is displayed.

Figure 5-13 Edit an Account



- a. Double-click on the Withdrawal Limit field and edit the required value.
- b. Click **Update** to update the modified value.
- 3. Click **Navigation** icon to view the transaction product information as follows

Figure 5-14 Channel Details



4. Click **Continue** on the Copy and modify control set window to navigate to the Review step.

## 5.1.4 Monitoring New Offerings

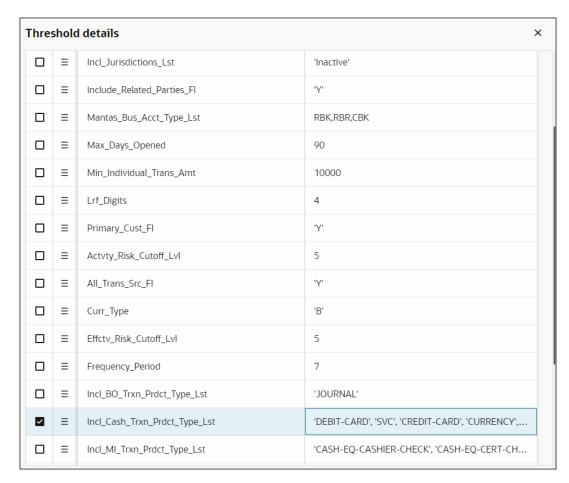
Use this section to modify the threshold value for the newly added offerings (Account Type and transaction product). For more information on how to add a new offering (Account Type or transaction product), see Modifying the System.

To monitor the newly added offerings, follow these steps:

- On the Copy and Modify Control Set section, go to Scenarios Threshold Set Name dropdown list.
- 2. Select the required Scenarios threshold set name from the drop-down list. The scenarios are displayed based on the selected Scenarios threshold set name.

3. Click the **Edit** icon to modify the selected scenario threshold values. The Threshold Details window is displayed.

Figure 5-15 Threshold Details Window



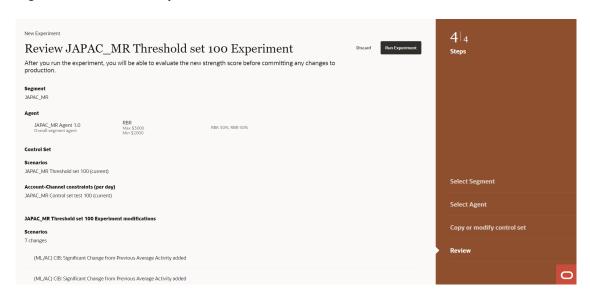
- 4. Double-click on the required Threshold Value field and then edit the threshold value.
- 5. When a new offering (account type) is added, you can append the name of new account type to list in Mantas\_Bus\_Acct\_Types\_Lst.
- 6. When a new transaction product is added to system, you can append the name of that transaction product to the value of one of the following thresholds.
  - Incl\_Cash\_Trxn\_Prdct\_Type\_Lst If new Product is mapped to Cash transaction product.
  - Incl\_MI\_Trxn\_Prdct\_Type\_Lst If new Product is mapped to MI transaction product.
  - Incl\_Wire\_Trxn\_Prdct\_Type\_Lst If new Product is mapped to WIRE transaction
    product. For example, ZELLE is mapped to WIRE (Can be comma separated in case
    of multiple Products).
  - Incl\_BO\_Trxn\_Prdct\_Type\_Lst If new Product is mapped to BO transaction product.
- 7. Click **Update Scenario** to modify the information.



### 5.1.5 Reviewing the Experiment

In this section, you can verify all the parameters before running the experiment.

Figure 5-16 Review Experiment



- 1. Click Run Experiment to generate the new experiment. Upon completion of the experiment, the status of the experiment can be viewed in the Experiments tab.
- The results of the experiments will be available in the Transaction Monitoring Performance Dashboard or you can view results by clicking the View Results on the notification of the Ask Oracle window.

## 5.1.5.1 Segment Strength

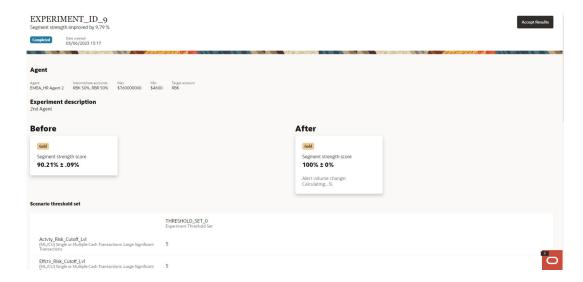
You can view the experiments for the following cases:

- **System Experiment**: This allows you to view the experiments which depicts system strength.
- Typology: This allows you to view the experiments which covers typology scenarios like Human Trafficking

To view result of the generated experiment for System Experiments and Typology, follow these steps:

 Click on the required Experiment Id in the Experiments tab to view the System Experiments results. The following window is displayed.

Figure 5-17 Segment Strength



(Optional) Here, the expected change in performance of the system and the expected change in alert volume are displayed. An experiment is successful, if there is an increase in system strength without a disproportionate increase in alert volume.

Click on the required Experiment Id in the Experiments tab to view the typology results. The following window is displayed.

Figure 5-18 Typology Experiment



If you select a Typology Experiments, for example, Human Trafficking, a detailed report in terms of Red Flag Coverage is displayed for the same. The Metrics cover seven different patterns as below:

- Purchases at known online trafficking/dating websites, as well as frequent purchases
  of clothing, pharmacies, taxi services, movie theatres, hotels
- b. Transactional activity largely occurs outside of normal business operating hours (for example, an establishment that operates during the day has a large number of transactions at night), is almost always made in cash, and deposits are larger than what is expected for the business and the size of its operations.



- High risk industries includes hotels, restaurants, bars, escort services, massage businesses
- d. Funnel accounts generally involve an individual or business account in one geographic area that receives multiple cash deposits, often in amounts below the cash reporting threshold, from which the funds are withdrawn in a different geographic area with little time elapsing between the deposits and withdrawals.
- e. Customers frequently appear to move through and transact from different geographic locations in the United States. These transactions can be combined with travel and transactions in and to foreign countries, which are significant conduits for sex trafficking.
- f. A customer frequently sends or receives funds via cryptocurrency
- g. Financial control pattern as described in the Polaris report. The Value closer to 100 indicates higher Coverage. However, a value close to 0 indicated lesser Coverage.

## 5.2 Generating Experiment from Recommendation

OFSCA offers recommendations to tackle the identified deficiencies. A deficiency can be a low scenario performance or a high account/ channel vulnerability. The recommendations aim to tune the scenario with the highest chances of addressing the selected deficiency. To generate recommended thresholds for the scenario, OFSCA evaluates the performance of simulated TMS against multiple sets of candidate thresholds within proximity of the production (currently applied) values. A set of candidates is evaluated by using a combined metric analyzing both the percentage of episodes getting alerted and the average number of distinct alerts per episodes. OFSCA recommends the set that has performed optimally as per the metric. This section describes the process for generating experiments to assess the effectiveness of these recommendations.

To generate an experiment for the particular segments, follow these steps:

- Click Open Ask Oracle to display the Ask Oracle window.
- Click Transaction Monitoring Performance menu to display the Transaction Monitoring Performance dashboard. The following window is displayed.

Figure 5-19 Transaction Monitoring Performance Dashboard



3. Click the required segment (for example, APAC\_MR) to view the individual segment dashboard. The following window is displayed.

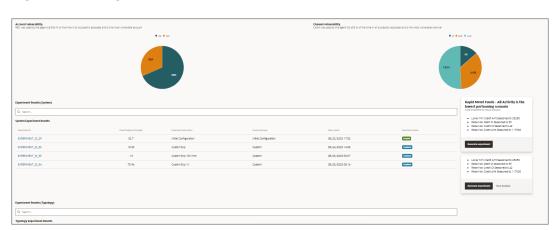


Figure 5-20 Segment Dashboard

This dashboard presents the insights generated for the scenario performance, account vulnerability, and transaction product vulnerability.

For each Insight, we see OFSCA-identified scenarios that can be adapted to address the identified vulnerabilities for each section. Besides, OFSCA provides specific threshold recommendations for the scenarios identified.

## 5.2.1 Generating Experiments for Segment

You can generate an experiment to evaluate this specific recommendation by clicking Generate Experiment on the segment dashboard.

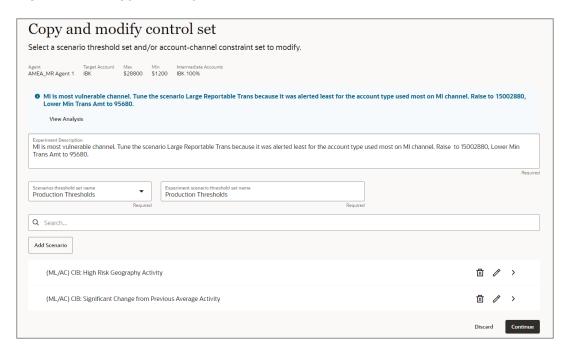


If the results of the generated experiments do not meet your expectation, then consider generating a new experiment based on other recommendations displayed in the Transaction Monitoring Performance dashboard.

To generate an experiment, follow these steps:

 Click Generate Experiment on the segment dashboard. The Copy or Modify Control Set window is displayed. The recommended threshold values are auto populated in the listed Scenarios.

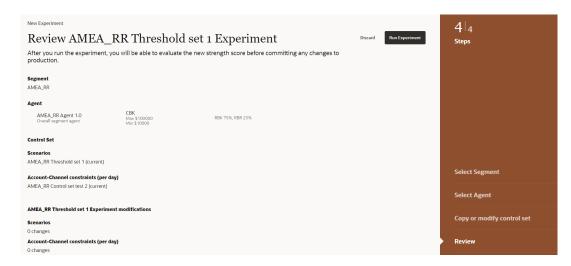
Figure 5-21 Copy or Modify Control Set



- The dialog box appears if the unfinished experiment is running on the existing segment. In that case, click **OK** on the dialog box to continue generating the experiment.
- The experiment description will be auto populated with the recommendation from the segment dashboard.
- Do not change the default value in the Scenarios Threshold Set Name drop-down list.
- 2. Enter the relevant name or description for threshold set in the Experiment Scenario Threshold Set Name field.
- 3. If you want to modify the recommended thresholds, Click **Edit** icon against the existing scenarios. The Threshold Details window is displayed.
- 4. Modify the threshold value. Click **Update Scenario**. The Scenario List page is displayed.
- 5. Click **Continue** to navigate to the Review step. The following window is displayed.



Figure 5-22 Review Segment



6. Click Run Experiment to run the experiment. A notification will be delivered through the Ask Oracle window when the experiment is complete and you can view the generated experiment either through the Transaction Monitoring Performance dashboard or in the Experiments tab.

### 5.2.2 View Analysis

To view the identified vulnerability in detail, follow the step:

 Click View Analysis on the segment dashboard in each of the tiles provides a more detailed analysis of the identified vulnerability.

For account vulnerability, it presents an analysis of the agent's transactional activity involving the most vulnerable account type.

It presents a breakdown of activity in the account type by transaction product as well as the range of activity observed for each of these transaction products for credits and debits.



Figure 5-23 For Account Type

For transaction product vulnerability, it presents an analysis of the agent's transactional activity involving the most vulnerable transaction product type.

It presents a breakdown of activity in the transaction product type by account as well as the range of activity observed for each of these account types for credits and debits

MI Analysis

MI was used by the agent 49.59% of the time in all the episodes during this experiment. Recommendation: Tune thresholds for scenario Rapid Mirms Funds - All Activity monitoring MI transactions.

Credits

MI was primarily used to credit RBK accounts between \$2400 - \$19800

Account usage

Transaction amounts

Debits
MI was primarily used to debt RBK accounts between \$2400 - \$9900

Account usage

Transaction amounts

Figure 5-24 For Channel

This can also inform hypotheses a user can test using custom experiments. For example, if the account vulnerability analysis indicates that wires are the most commonly used transaction product for a specific account, a user can try tuning thresholds of scenarios that monitor wires.

2. Hoverover to view details

## 5.3 Comparing an Experiment

In this section, you can compare two experiments of the same segment.

To compare the two experiments, follow these steps:

- Click Open Ask Oracle to display the Ask Oracle window.
- Click Experiments menu to display the Experiments window. The following window is displayed.

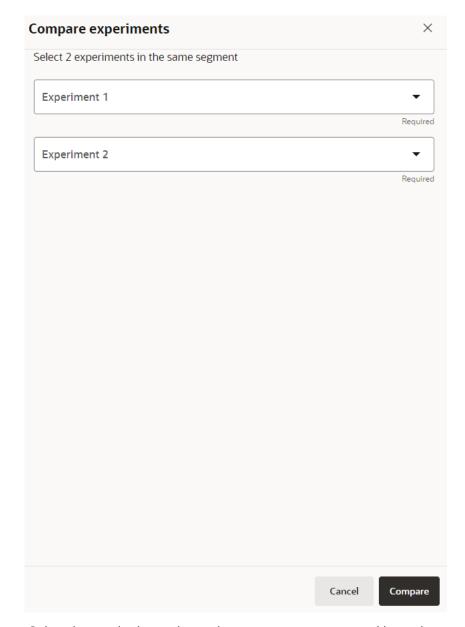
Figure 5-25 Experiments



3. Click Compare Experiment. The following window is displayed.



Figure 5-26 Compare Experiment



- 4. Select the required experiment that you want to compare with another experiment from the Experiment 1 drop-down list.
- 5. Select the required experiment that you want to compare with experiment 1 from the Experiment 2 drop-down list.



You can compare the experiments in the same segments only.

6. Click **Compare to compare** the selected experiments. The compared result is displayed.

Results from the two selected experiments and the currently accepted experiment for the segment are displayed as shown in the below figure. Any differences between the agents used, and the thresholds evaluated are also displayed.

Figure 5-27 Experiment Result



You can compare the results between two experiments and accept them based on the segment strength score.



You can not accept the result if the experiment has more than four accounts.

# 5.4 Comparing Experiments to Assess Risk of New Offerings

Use this section to verify the impact of adding a new offering such as account type and transaction product by comparing the experiments.

#### Topics:

- Risk of New Offering-Account Type
- Risk of New Offering-Transaction Product

#### 5.4.1 Risk of New Offering-Account Type

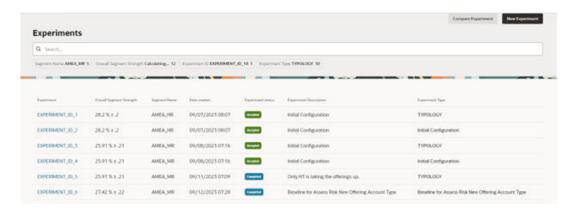
Use this section to verify the impact of adding a new offering as an account type by comparing the experiments.

To compare the two experiments to assess the risk of the new offering as an account type, follow these steps:

- Click **Open Ask Oracle** to display the Ask Oracle window.
- 2. Click the Experiments menu. The Experiments window is displayed.

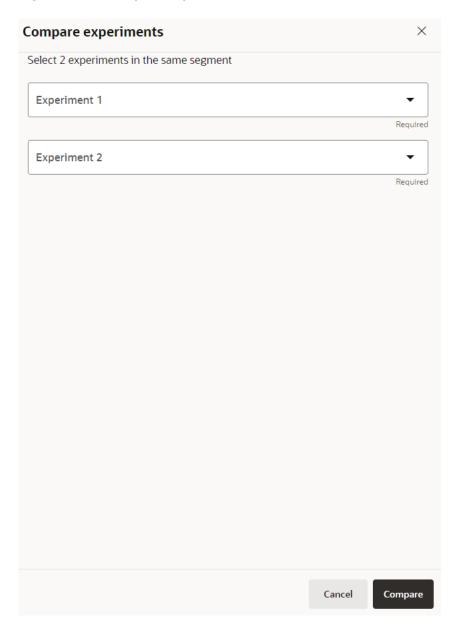


Figure 5-28 Compare Experiments



3. Click Compare Experiment. The following window is displayed.

Figure 5-29 Compare Experiment



- 4. Select the experiment which has a newly added offering as an account type that you want to compare with another experiment from the Experiment 1 drop-down list.
- Select another experiment that has a newly added offering as the account type with different set of constraints that you want to compare with Experiment 1 from the Experiment 2 drop-down list.



You can compare the experiments in the same segments only.

6. Click **Compare** to compare the selected experiments. The compared result is displayed.

Results from the two selected experiments and the currently accepted experiment for the segment are displayed as shown in the below figure. Any differences between the agents used, and the thresholds evaluated are also displayed.

Figure 5-30 Experiment Result



You can compare the results between the experiments to determine the incremental risk resulting from using different sets of controls to monitor the new account type. If the system strength has dropped relative to the accepted experiment, this indicates that the new account type is not monitored as effectively as existing accounts. This is acceptable if an institution knows the account is being offered to low risk customers.

If the system strength has not changed or increased relative to the accepted experiment, this indicates that the new account type is being more effectively monitored than existing account types. For accounts that are being offered to higher risk customers, institutions should look to devise controls that result in an increase in system strength.

7. Click **Accept Results** to accept the experiment for the particular segment.



You can add up to 5 account types in an Experiment but only Experiments with up to 4 account types can be accepted

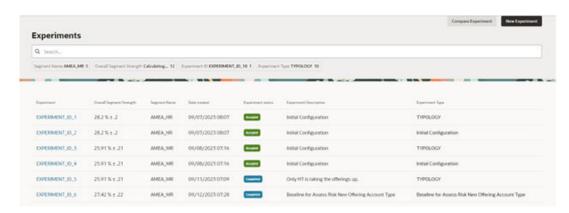
#### 5.4.2 Risk of New Offering-Transaction Product

Use this section to verify the impact of adding a new offering as a transaction product by comparing the experiments.

To compare the two experiments to assess the risk of the new offering as a Transaction Product, follow these steps:

- Click **Open Ask Oracle** to display the Ask Oracle window.
- 2. Click the **Experiments** menu. The Experiments window is displayed.

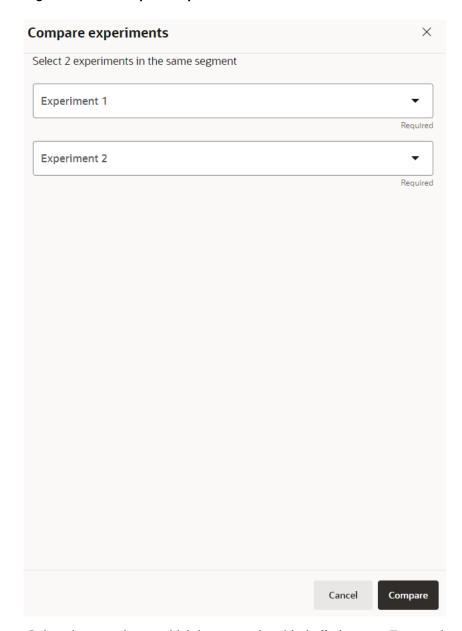
Figure 5-31 Experiments



3. Click Compare Experiment. The following window is displayed.



Figure 5-32 Compare Experiment



- 4. Select the experiment which has a newly added offering as a Transaction Product that you want to compare with another experiment from the Experiment 1 drop-down list.
- Select another experiment that has a newly added offering as the Transaction Product with different set of constraints that you want to compare with Experiment 1 from the Experiment 2 drop-down list.



You can compare the experiments in the same segments only. You can add up to 5 account types in an Experiment.

6. Click Compare to compare the selected experiments. The compared result is displayed.

Results from the two selected experiments and the currently accepted experiment for the segment are displayed as shown in the below figure. Any differences between the agents used, and the thresholds evaluated are also displayed.

Figure 5-33 Experiment Result



You can compare the results between the experiments to determine the incremental risk resulting from using different sets of controls to monitor the new account type. If the system strength has dropped relative to the accepted experiment, this indicates that the new account type is not monitored as effectively as existing accounts. This is acceptable if an institution knows the account is being offered to low risk customers.

If the system strength has not changed or increased relative to the accepted experiment, this indicates that the new account type is being more effectively monitored than existing account types. For accounts that are being offered to higher risk customers, institutions should look to devise controls that result in an increase in system strength.

7. Click **Accept Results** to accept the experiment for the particular segment.



# Modifying the System

If you have recently added add-ons to your product portfolio, you may need to adjust your system accordingly. This section provides a step-by-step guide to integrating new account types and Transaction Products into your existing system.

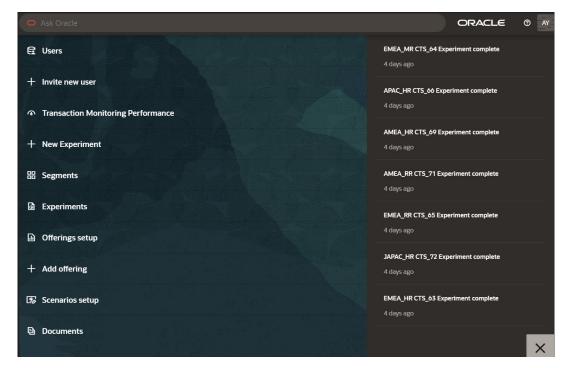
#### Topics:

- Adding an Account
- Adding a Transaction Product

To view the Offerings Setup, follow these steps:

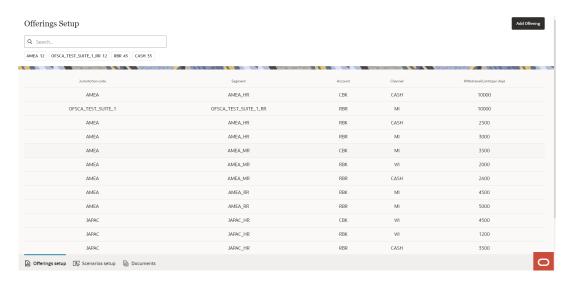
 Click Open Ask Oracle to display the Ask Oracle window. The Application page is displayed.

Figure 6-1 Ask Oracle Menu



Click Offerings setup menu to display the Offerings Setup window. The Offering Setup window is displayed.

Figure 6-2 Offerings Setup



You can view the list of offerings currently configured in OFSCA and also you can perform the following:

- 3. Click **Add Offering** to create a new account or Transaction Product in the system. You can also add offerings directly from Application menu by clicking Add Offering.
  - To add an account, see the Adding an Account section.
  - To add a channel, see the Adding a Transaction Product section.

You can search for the required details in the Search field. The available options are Jurisdiction, Segment, Account, and Channel.

## 6.1 Adding an Account

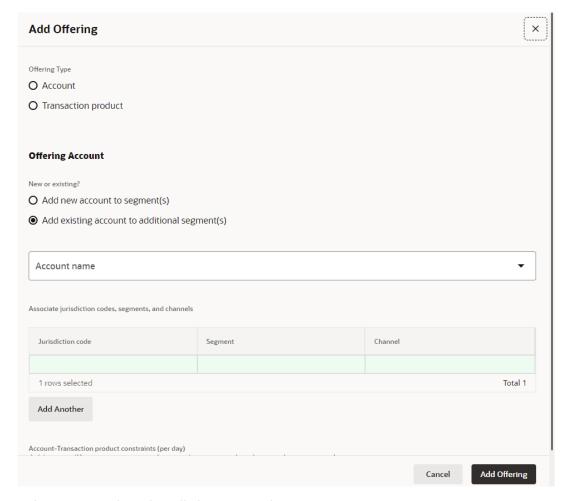
Use this section to add a new or an existing account to the segment.

To add an account to the segment, follow these steps:

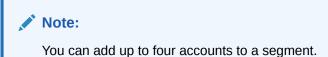
 On the Ask Oracle menu or Offering Setup page, click Add Offering. The Add Offering window is displayed



Figure 6-3 Add Offering for Account



- 2. Select **Account** from the Offering Type option.
- To add a new account to the segment, select Add new account to segment(s). Enter the name of the new account in the Account Name field
- To add an existing account to a segment, select Add existing account to additional segment(s). Select the existing account name from the drop-down list in the Account Name field.



- 5. In the Associate jurisdiction codes, segments, and channels group, double-click on the Jurisdiction code and select the required jurisdiction code from the drop-down list. The account will only be available in these selected jurisdictions.
- 6. Click on the **Segment** and select the required segment from the drop-down list. The account will be available only to agents belonging to selected segments.

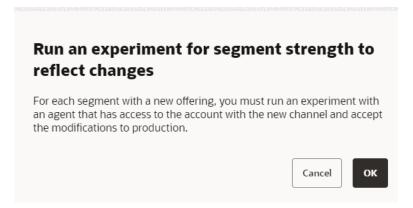




The drop-down list displays the result based on the selected jurisdiction code.

- 7. Click on the Channel and select this icon to display the Search field. Search the required channel in the field. Only selected channels can be used to transfer funds in and out of this account type.
- Click Add Another to add this account to a different jurisdiction codes, segments, and channels to the account.
- 9. Click Add Offering. A dialog box appears:

Figure 6-4 Confirmation Dialog Box



- **10.** Click **OK** to add an account in the particular segment. The newly added account will be available to new agents in the chosen segment. A new agent will be automatically created for this segment and It will have access to new offering.
- 11. A new experiment must be run to get an updated segment strength score with the newly added "account type". To run the experiment, the newly created agent must be chosen. You can also modify the Account-Channel constraints associated with this account or configure a scenario to monitor this new account before you run the experiment. For more information, see Copying or Modifying the Control Set

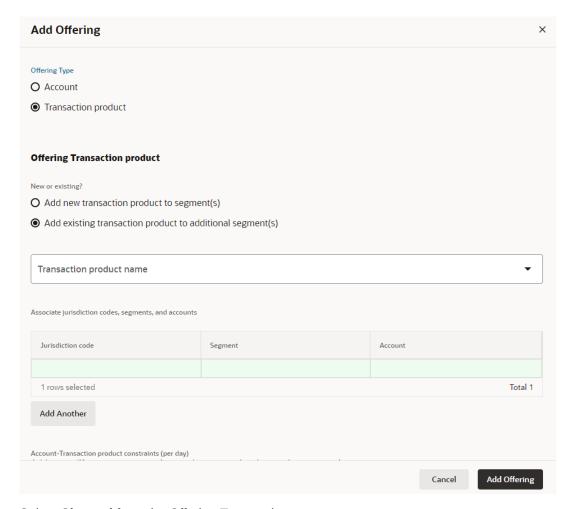
### 6.2 Adding a Transaction Product

Use this section to add a new or an existing Transaction Product to the segment.

To add a Transaction Product, follow these steps:

 On the Ask Oracle menu or Offering Setup page, click Add Offering to create a new channel. The Add Offering window is displayed

Figure 6-5 Add Offering for Transaction Product



- Select Channel from the Offering Type option.
- To add a new Transaction Product to the segment, select Add new Transaction Product to segment(s). Enter the name of the new Transaction Product in the Transaction Product Name field.
- 4. To add an existing Transaction Product to a segment, select Add existing Transaction Product to additional segment(s). Select the existing Transaction Product name from the drop-down list in the Transaction Product Name field.
- 5. In the Associate jurisdiction codes, segments, and accounts group, double-click on the Jurisdiction code and select the required jurisdiction code from the drop-down list. The new Transaction Product will be available in the selected jurisdictions.
- 6. Click on the **Segment** and select the required segment from the drop-down list. The new Transaction Product will only be available to agents belonging to the selected segments

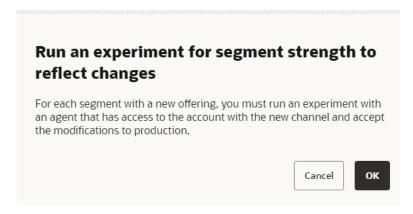


The drop-down list displays the result based on the selected jurisdiction code.



- 7. Click on the Account and select this icon to display the Search field. Search the required account in the field. The new channel can be used to transfer funds only from the selected account types.
- **8.** Click **Add Another** to add this transaction product to a different jurisdiction codes, segments, and accounts to the channel.
- Click Add Offering. A new Transaction Product is added to the segment.

Figure 6-6 Confirmation Dialog Box



- 10. Click **OK** to add a Transaction Product in the particular segment.
- A new experiment must be run to get an updated segment strength score with the newly added "Transaction Product".



7

# Navigating the OFSCA UI

This section describes how to navigate the key components of the OFSCA application.

### Topics:

- Creating a New User
- Managing Transaction Monitoring Performance
- Creating a New Experiment
- Managing Segments
- Managing Experiments
- Managing Offerings Setup
- Viewing Scenario Setup
- Using Documents

## 7.1 Managing Users

To view the list of users in the application, follow these steps:

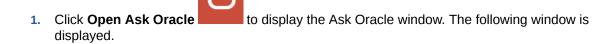
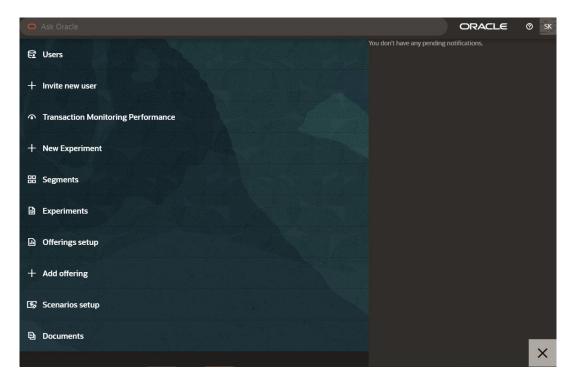


Figure 7-1 Application Menu

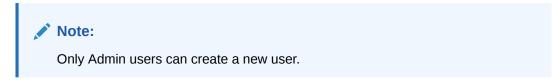


Click Users menu to display the Users window. For more information, see the User Roles and Privileges section.

# 7.2 Creating a New User

To create a new user, follow these steps:

- Click **Open Ask Oracle** to display the Ask Oracle window.
- Click Invite User menu to create a new user. For more information, see the Invite User section.



## 7.3 Managing Transaction Monitoring Performance

To view the transaction monitoring performance dashboard, follow these steps:

- Click Open Ask Oracle to display the Ask Oracle window.
- Click Transaction Monitoring Performance menu to display the Configure your Transaction Monitoring System window. For more information, see the Configuring the Transaction Monitoring System section.



Once the system is configured, you can see the Transaction Monitoring Performance dashboard instead of Configuring your Transaction Monitoring System window

### 7.4 Creating a New Experiment

To create a new experiment, follow these steps:

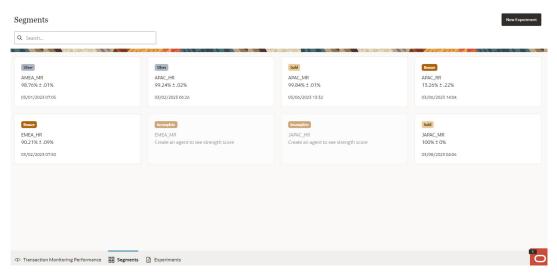
- Click **Open Ask Oracle** to display the Ask Oracle window.
- Click New Experiment menu to display the New Experiment window. For more information, see the New Experiment section.

### 7.5 Managing Segments

To get an overview of the performance of all segments at your institution, follow these steps:

- Click
   Open Ask Oracle to display the Ask Oracle window.
- 2. Click **Segments** menu to display the Segments window. The following window is displayed.

Figure 7-2 Segments



- 3. Click on the Search bar and select the required filter options from the drop-down list. The available filter options are Segment, Segment strength score, and Date created.
  - Or Click on the required filter button below the Search bar and select the required filter options from the drop-down list.

**4.** Click on the individual segment <APAC\_MR>. It will navigate to the segment's dashboard as follows:

Figure 7-3 Segment Dashboard



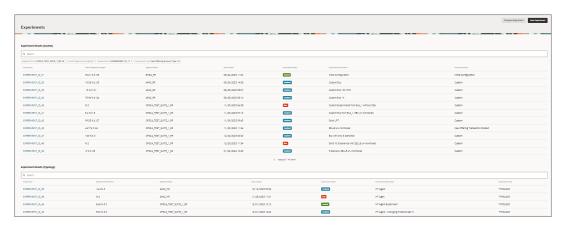
For more information about the segment dashboard, see the Generating Experiment from Recommendation section.

## 7.6 Managing Experiments

To view the experiments, follow these steps:

- 1. Click Open Ask Oracle to display the Ask Oracle window.
- Click Experiments menu to display the Experiments window. The following window is displayed.

Figure 7-4 Experiments



The following table describes fields and buttons in the experiments window.



Table 7-1 Experiment

Fields	Description
New Experiment	Click <b>New Experiment</b> to generate a new experiment for the segment. To create a new experiment, see the User Defined Experiment section.
Compare Experiment	Click <b>Compare Experiment</b> to compare the two selected experiment in the same segment. For more information, see the Comparing an Experiment section.
Search	The field to search for Experiment. Enter a specific segment name for which you want to search, and press Enter on the keyboard to display the results. The search is available for all the fields.
Experiment	Experiment name of the created segment.
Overall Segment Strength	Displays the segment strength.
Segment Name	Displays the segment strength.
Segment Name	Name of the segment.
Date Created	The date on which the Experiment is created.
Experiment Status	<ul> <li>Displays the status of the Experiment. The statuses are:</li> <li>In progress: The experiment is in running state.</li> <li>Completed: The running experiment is completed.</li> <li>Accepted: Currently, the user has accepted experiment and the controls evaluated in this experiment are in production.</li> <li>Inactive: Initially, it was accepted by the user. To improve segment strength, the user conducted another new experiment for the segment, which has been accepted. So, the previous experiment status of the segment will be changed to inactive.</li> <li>Error: It is due to a convergence problem. To resolve this issue, contact the support team.</li> </ul>
Experiment Description	The description of the Experiment.
Experiment Type	<ul> <li>Displays the type of the Experiment. The types are:</li> <li>Initial setup: The experiment is generated through the initial configuration of the system.</li> <li>Custom: New experiment is generated through the experiment workflow.</li> <li>Recommendation: The experiment is generated through recommendation method.</li> </ul>

# 7.7 Managing Offerings Setup

To create an account/channel in the system, follow these steps:

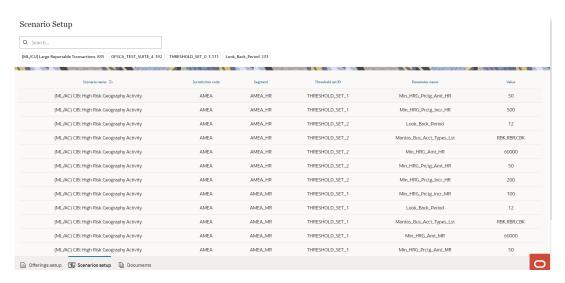
- 1. Click **Open Ask Oracle** to display the Ask Oracle window.
- Click Offerings setup menu to display the Offerings Setup window. For more information, see the Modifying the System section.

# 7.8 Viewing Scenario Setup

To view the scenario setup for the system, follow these steps:

- Click **Open Ask Oracle** to display the Ask Oracle window.
- Click Scenarios setup menu to display the Scenario Setup window. The following window is displayed.

Figure 7-5 Scenario Setup



You can view the list of scenarios that are associated with the Jurisdiction code, Segment, Threshold set ID, Parameter name, and Value.

### 7.9 Using Documents

To reset the system and initial configuration, follow these steps:

- Click Open Ask Oracle to display the Ask Oracle window.
- 2. Click **Documents** menu to display the Documents window.
- 3. Click **Download** icon to download the files you have uploaded.

# Understanding the OFSCA Metrics

This section describes information about the OFSCA metrics.

#### Topic:

- Segment Strength Score
- System Strength Score
- Segment Performance
- Scenario Performance
- Account Vulnerability
- Channel Vulnerability

### 8.1 Segment Strength Score

OFSCA's segment strength score is a metric that measures the transaction monitoring controls' effectiveness in monitoring a customer segment. The score is determined based on the following steps. This metric is calculated by the following:

- The '% transferred' is estimated, which reflects the percentage of the target amount that an agent can transfer from the source account to the target account before the first alert is triggered.
- 2. The final metric value is calculated as 100 '% transferred'.

The metric is computed over multiple episodes sampled from the trained agent. 95% confidence intervals for this metric are also computed from these episodes. The closer the value is to 100%, the better the transaction monitoring system performs for a given customer segment, as the agent's ability to transfer a high% of the target amount is limited. Conversely, a value closer to 0 indicates the system is not performing optimally for this segment, as the agent can transfer a high% of the target amount before the first alert is triggered.

#### Limitations

This metric is reliable only if the experiment is a success (that is, the agent has been trained successfully), signifying the agent's successful training. However, this metric should not ascertain any decisive conclusions if the agent fails to converge. In such cases, OFSCA generates an error message indicating the unsuccessful experiment.

### 8.2 System Strength Score

The system strength score gives a consolidated view of the performance of the entire transaction monitoring system. This metric is computed by taking a simple average of the segment strength scores of all of the institution's customer segments. The variance for each segment strength score is also aggregated to produce a confidence interval for this metric.

#### Limitations



As this metric is an average, it might obscure the poor performance of one or more segments. Even if the system strength score is high, monitoring the individual segment strength scores is important.

### 8.3 Segment Performance

The Segment Performance in metric captures the efficacy of the System in detecting various Typologies, for example, Human Trafficking. A high value of the performance metric indicates that the scenarios deployed to combat Typologies (Human Trafficking) offer significant resistance to the agent by alerting it as it attempts to move money through your institution. OFSCA calculates the segment performance for Red Flag Coverage by the following:

- Simulating patterns depicting Human Trafficking cases.
- Estimating the percentage of episodes where the HT Agent scenarios alerted.

If the scenarios did not alert in the majority of the simulated episodes, it means that the System is unable to resist the agent and has low efficacy. A value close to 100 means the System offers high Coverage in detecting the Human Trafficking pattern.

A value close to 0 means the System has very low efficacy. Tuning the existing HT Agent scenarios or deploying more can improve the performance of the TMS for the segment in question.

### 8.4 Scenario Performance

Enter a short description hereThe scenario performance metric captures which scenarios offer the most resistance to an intelligent adversarial agent. A high value of the performance metric indicates that the scenario offers significant resistance to the agent by alerting on it as it attempted to move money through your institution.

OFSCA calculates the performance of a scenario by the following:

- Sampling episodes from the trained agent's policy.
- 2. Estimating the percentage of episodes where the scenario alerted.

If a scenario did not alert in the majority of the simulated episodes, it means that the scenario is unable to resist the agent and has low efficacy.

A value close to 100 means this scenario has high efficacy and offers very high resistance to the agent. A vale close to 0 means the scenario has very low efficacy.

Tuning a low performing scenario can lead to an improvement in the performance of the TMS for the segment in question. 95% confidence intervals are also computed for this metric.

### 8.5 Account Vulnerability

The account vulnerability metric captures which account types are most liable to being abused by an intelligent agent to move money through your financial system. A high value for this metric indicates that this account type was the agent's preferred account when moving money through your Institution.

OFSCA calculates the vulnerability of an account by the following:

Sampling episodes from the trained agent's policy.



- 2. Estimating the funds that flowed through each account type. For example, if \$100 was credited into an account and debited from the account, the funds that flowed through that account were \$100. If only \$50 was debited, only \$50 flowed through that account.
- Normalizing this across all account types.

An account type with a high value for this metric is preferred by the agent over an account type with a lower value of this metric. Enhancing controls that monitor a vulnerable account type can improve the performance of the TMS for the segment in question.

#### Limitations

- Currently, any funds that flow through an account are attributed to that account even if
  those funds did not reach the destination account. This could lead to the vulnerability of an
  account type being inflated in a given episode. However, since the metric is computed by
  averaging across multiple episodes, this should not have a bearing on the final metric.
- 2. If two are more account types (e.g., BRK and RBK) are highly vulnerable, then the agent will break ties randomly and will assign a high vulnerability score to one of these account types while assigning a lower vulnerability score to others. If the overall segment score does not improve significantly even after remediating the account type with the highest vulnerability score (e.g., BRK), this could be because other account types continue to be vulnerable. Once an experiment to address the most vulnerable account type (BRK) has been run and accepted, the segment dashboard will update to now indicate that the second account type (RBK) is most vulnerable. You might have to run an experiment to address monitoring gaps for this second account type (RBK) before overall segment score improves.

### 8.6 Channel Vulnerability

The channel vulnerability metric captures which channels are most liable to being abused by an intelligent agent to move money through your financial system. A high value for this metric indicates that this channel was the agent's preferred instrument for transferring money through your institution.

OFSCA calculates the vulnerability of the channel by the following:

- Sampling episodes from the trained agent's policy.
- Estimating the funds that were transacted using each channel. For example, if A
  transferred \$100 to B using wires and B transferred \$50 to C using MI. Funds attributed to
  wire = 100 and funds attributed to MI = \$50.
- Normalize this across all channel types.

A channel with a high value for this metric is preferred by the agent over a channel with a lower value for this metric. Enhancing controls that monitor a vulnerable channel can improve the performance of the TMS for the segment in question.

### Limitations

- 1. Currently, any funds that are transferred using a channel are attributed to that channel for computing the vulnerability metric, even if those funds did not reach the destination account. This could lead to the vulnerability of a channel type being inflated in a given episode. However, since the metric is computed by averaging across multiple episodes, this should not have a bearing on the final metric.
- 2. If two are more channels (e.g., Wire and MI) are highly vulnerable, then the agent will break ties randomly and will assign a high vulnerability score to one of these channels while assigning a lower vulnerability score to others. If the overall segment score does not improve significantly even after remediating the channel with the highest vulnerability score



(e.g., Wire), this could be because other channels continue to be vulnerable. Once an experiment to address the most vulnerable channel has been run and accepted, the segment dashboard will update to now indicate that the second channel (MI) is most vulnerable. You might have to run an experiment to address monitoring gaps for this second channel (MI) before overall segment score improves.



9

# **Appendix**

### Topics:

- How to Calculate the Target Amount
- How to Calculate the CIB Parameter

### 9.1 How to Calculate the Target Amount

The following query is a suggested way of arriving at these target amounts:

select t.JRSDCN\_CD,(t.AVG\_AMT + 2\*t.SD) as min\_amt,(t.AVG\_AMT + 5\* t.SD) as max\_amt from /\*Consider mean of deposit and withdrawal amounts rather than just one or the other. \*/ (select JRSDCN\_CD, AVG((TOT\_DEPST\_AM+TOT\_WDRWL\_AMT)/2) as avg\_amt, STDDEV((TOT\_DEPST\_AM+TOT\_WDRWL\_AMT)/2) as sd from CUST a inner join CUST\_SMRY\_MNTH b on a.CUST\_INTRL\_ID = b.CUST\_INTRL\_ID /\*Choose an appropriate time frame \*/ where MNTH\_SMRY\_START\_DT between '01-MAY-15' and '01-SEP-15' /\* This assumes JURSDCN\_CD = Segment. if not adjust appropriately \*/ group by JRSDCN\_CD) t;

### 9.2 Sample Template

This appendix provides sample templates.



If the JSON is not properly formatted, it will result in an error within the application. To avoid this issue, you must download the template from the user interface (UI) for each upload. The provided examples must only be used as a reference.

Template for each risk category (RR, MR, HR)

Sample Template-1

```
{
    "scenario_name":
    "custom_rmf_4", "jurisdiction_thresholds":
    { "BCAP": {
        "RR_Min_Credit_Amt":0.01,
        "RR_Max_Credit_Amt":100000000, "RR_Min_Credit_Ct":1,
        "RR_Max_Credit_Ct":100000, "RR_Min_Debit_Ct":1,
        "RR_Max_Debit_Ct":100000, "RR_Min_Perc": 0.8,
        "lookback_period": 14,
        "rule_run_frequency": 7,
        "accts_monitored": "RBK, RBR"
    }
}
```

}

### Sample Template-2

```
"scenario_name":
    "custom_rmf_5", "jurisdiction_thresholds":
{ "BCAP": {
        "MR_Min_Credit_Amt":0.01,
        "MR_Max_Credit_Amt":100000000, "MR_Min_Credit_Ct":1,
        "MR_Max_Credit_Ct":100000, "MR_Min_Debit_Ct":1,
        "MR_Max_Debit_Ct":100000, "MR_Min_Perc": 0.8,
        "lookback_period": 14,
        "rule_run_frequency": 7,
        "accts_monitored": "RBK, RBR"
    }
}
```

### Sample Template-3

```
{
    "scenario_name":
    "custom_rmf_6", "jurisdiction_thresholds":
    { "BCAP": {
        "HR_Min_Credit_Amt":0.01,
        "HR_Max_Credit_Amt":100000000, "HR_Min_Credit_Ct":1,
        "HR_Max_Credit_Ct":100000, "HR_Min_Debit_Ct":1,
        "HR_Max_Debit_Ct":100000, "HR_Min_Perc": 0.8,
        "lookback_period": 14,
        "rule_run_frequency": 7,
        "accts_monitored": "RBK, RBR"
    }
}
```

### 9.3 How to Calculate the CIB Parameter

The following query is a suggested way for calculating CIB parameters from the data:

```
/*CIB Parameters*/ select c.JRSDCN CD,
                                        AVG(t.AVG CREDIT AMT) as
AVG CREDIT AMT,
                     AVG(t.AVG DEBIT AMT) as AVG DEBIT AMT,
    AVG(t.SD CREDIT) as SD CREDIT,
                                      AVG(t.SD_DEBIT) as SD_DEBIT,
    AVG(t.MAX CREDIT AMT) as MAX CREDIT AMT,
                                                  AVG(t.MAX DEBIT AMT) as
MAX DEBIT AMT from acct a INNER JOIN
                                          cust acct ca
                                                        on a.ACCT INTRL ID =
ca.ACCT INTRL ID
                    inner join cust c
                                      on ca.CUST_INTRL_ID = c.CUST_INTRL_ID
    inner join
                (select ACCT_INTRL_ID,
                                             AVG(TOT DEPST AM) as
AVG_CREDIT_AMT,
                         AVG(TOT_WDRWL_AM) as AVG_DEBIT_AMT,
        STDDEV(TOT DEPST AM) as SD CREDIT,
        STDDEV(TOT WDRWL AM) as SD DEBIT,
                                                    MAX(TOT DEPST AM) as
```

MAX\_CREDIT\_AMT, MAX(TOT\_WDRWL\_AM) as MAX\_DEBIT\_AMT from acct\_smry\_mnth --where MNTH\_SMRY\_START\_DT between '01-MAY-15' and '01-SEP-15' where MNTH\_SMRY\_START\_DT >= add\_months(trunc(sysdate, 'month'), -12) -- Recent 12 months data and MNTH\_SMRY\_START\_DT < trunc(sysdate, 'month') GROUP BY ACCT\_INTRL\_ID) t on a.ACCT\_INTRL\_ID = t.ACCT\_INTRL\_ID GROUP BY c.JRSDCN\_CD.

### 9.4 Aggregates List

The section provides the list of aggregates available for RL and HT.

The following table provides the list of aggregates available for RL and HT.

Table 9-1 List of Aggregate

Aggregate Name	Aggregate Description	Sc en ari o Ty pe
AGGREGATE_NAME	AGGREGATE_DE SC	SC EN ARI O_ TY PE
TOT_CASH_DEBIT_AMT	Total Cash Debit Amount for HT Transactions	HT
TOT_CASH_CREDIT_AMT	Total Cash Credit Amount for HT Transactions	HT
TOT_CASH_DEBIT_CT	Total Cash Debit Count for HT Transactions	HT
TOT_CASH_CREDIT_CT	Total Cash Credit Count for HT Transactions	HT
TOT_WIRE_DEBIT_AMT	Total Wire Debit Amount for HT Transactions	HT
TOT_WIRE_CREDIT_CT	Total Wire Credit Count for HT Transactions	HT
TOT_CRYPTO_DEBIT_AMT	Total Crypto Debit Amount for HT Transactions	HT
TOT_CRYPTO_CREDIT_CT	Total Crypto Credit Count for HT Transactions	HT
TOT_CASH_DEBIT_AMT_DAY	Total Cash Debit Amount for HT Transactions during the daytime	НТ



Table 9-1 (Cont.) List of Aggregate

Aggregate Name	Aggregate Description	Sc en ari o Ty pe
TOT_CASH_CREDIT_AMT_DAY	Total Cash Credit Amount for HT Transactions during the daytime	НТ
TOT_CASH_DEBIT_CT_DAY	Total Cash Debit Count for HT Transactions during the daytime	HT
TOT_CASH_CREDIT_CT_DAY	Total Cash Credit Count for HT Transactions during the daytime	HT
TOT_CASH_DEBIT_AMT_NIGHT	Total Cash Debit Amount for HT Transactions during the nighttime	HT
TOT_CASH_CREDIT_AMT_NIGHT	Total Cash Credit Amount for HT Transactions during the nighttime	HT
TOT_CASH_DEBIT_CT_NIGHT	Total Cash Debit Count for HT Transactions during the nighttime	HT
TOT_CASH_CREDIT_CT_NIGHT	Total Cash Credit Count for HT Transactions during the nighttime	HT
TOT_WIRE_DEBIT_AMT_DAY	Total Wire Debit Amount for HT Transactions during the daytime	HT
TOT_WIRE_CREDIT_AMT_DAY	Total Wire Credit Amount for HT Transactions during the daytime	HT
TOT_WIRE_DEBIT_CT_DAY	Total Wire Debit Count for HT Transactions during the daytime	HT
TOT_WIRE_CREDIT_CT_DAY	Total Wire Credit Count for HT Transactions during the daytime	HT
TOT_WIRE_DEBIT_AMT_NIGHT	Total Wire Debit Amount for HT Transactions during the nighttime	НТ



Table 9-1 (Cont.) List of Aggregate

Aggregate Name	Description ei ai o Ty	
TOT_WIRE_CREDIT_AMT_NIGHT	Total Wire Credit H Amount for HT Transactions during the nighttime	ΗT
TOT_WIRE_DEBIT_CT_NIGHT	Total Wire Debit H Count for HT Transactions during the nighttime	łТ
TOT_WIRE_CREDIT_CT_NIGHT	Total Wire Credit H Count for HT Transactions during the nighttime	НT
TOT_CRYPTO_DEBIT_AMT_DAY	Total Crypto Debit H Amount for HT Transactions during the daytime	łТ
TOT_CRYPTO_CREDIT_AMT_DAY	Total Crypto Credit H Amount for HT Transactions during the daytime	łТ
TOT_CRYPTO_DEBIT_CT_DAY	Total Crypto Debit H Count for HT Transactions during the daytime	łТ
TOT_CRYPTO_CREDIT_CT_DAY	Total Crypto Credit H' Count for HT Transactions during the daytime	łТ
TOT_CRYPTO_DEBIT_AMT_NIGHT		łТ
TOT_CRYPTO_CREDIT_AMT_NIGHT	Total Crypto Credit H Amount for HT Transactions during the nighttime	łТ
TOT_CRYPTO_DEBIT_CT_NIGHT	Total Crypto Debit H Count for HT Transactions during the nighttime	łТ
TOT_CRYPTO_CREDIT_CT_NIGHT	Total Crypto Credit H Count for HT Transactions during the nighttime	4T
TOT_HOTELS_DEBIT_AMT	Total Hotels Debit H Amount for HT Transactions	łТ



Table 9-1 (Cont.) List of Aggregate

Aggregate Name	Aggregate Description	Sc en ari o Ty pe
TOT_HOTELS_CREDIT_AMT	Total Hotels Credit Amount for HT Transactions	HT
TOT_HOTELS_DEBIT_CT	Total Hotels Debit Count for HT Transactions	HT
TOT_HOTELS_CREDIT_CT	Total Hotels Credit Count for HT Transactions	HT
TOT_DATING_SERVICES_DEBIT_AMT	Total Dating Services Debit Amount for HT Transactions	HT
TOT_DATING_SERVICES_CREDIT_AMT	Total Dating Services Credit Amount for HT Transactions	HT
TOT_DATING_SERVICES_DEBIT_CT	Total Dating Services Debit Count for HT Transactions	HT
TOT_DATING_SERVICES_CREDIT_CT	Total Dating Services Credit Count for HT Transactions	HT
TOT_DRUG_STORES_DEBIT_AMT	Total Drug Stores Debit Amount for HT Transactions	HT
TOT_DRUG_STORES_CREDIT_AMT	Total Drug Stores Credit Amount for HT Transactions	HT
TOT_DRUG_STORES_DEBIT_CT	Total Drug Stores Debit Count for HT Transactions	HT
TOT_DRUG_STORES_CREDIT_CT	Total Drug Stores Credit Count for HT Transactions	HT
TOT_TAXIS_DEBIT_AMT	Total Taxis Debit Amount for HT Transactions	HT
TOT_TAXIS_CREDIT_AMT	Total Taxis Credit Amount for HT Transactions	HT
TOT_TAXIS_DEBIT_CT	Total Taxis Debit Count for HT Transactions	HT



Table 9-1 (Cont.) List of Aggregate

		_
Aggregate Name	Aggregate Description	Sc en ari o Ty pe
TOT_TAXIS_CREDIT_CT	Total Taxis Credit Count for HT Transactions	HT
TOT_BARS_DEBIT_AMT	Total Bars Debit Amount for HT Transactions	HT
TOT_BARS_CREDIT_AMT	Total Bars Credit Amount for HT Transactions	HT
TOT_BARS_DEBIT_CT	Total Bars Debit Count for HT Transactions	HT
TOT_BARS_CREDIT_CT	Total Bars Credit Count for HT Transactions	HT
TOT_RENTAL_CARS_DEBIT_AMT	Total Rental Cars Debit Amount for HT Transactions	HT
TOT_RENTAL_CARS_CREDIT_AMT	Total Rental Cars Credit Amount for HT Transactions	HT
TOT_RENTAL_CARS_DEBIT_CT	Total Rental Cars Debit Count for HT Transactions	HT
TOT_RENTAL_CARS_CREDIT_CT	Total Rental Cars Credit Count for HT Transactions	HT
TOT_MOVIE_THEATERS_DEBIT_AMT	Total Movie Theaters Debit Amount for HT Transactions	HT
TOT_MOVIE_THEATERS_CREDIT_AMT	Total Movie Theaters Credit Amount for HT Transactions	HT
TOT_MOVIE_THEATERS_DEBIT_CT	Total Movie Theaters Debit Count for HT Transactions	HT
TOT_MOVIE_THEATERS_CREDIT_CT	Total Movie Theaters Credit Count for HT Transactions	HT
TOT_WOMEN_ACCESSORY_STORES_DEBIT_AMT	Total Women Accessory Stores Debit Amount for HT Transactions	HT



Table 9-1 (Cont.) List of Aggregate

Aggregate Name	Aggregate Sc Description en ari o Ty pe
TOT_WOMEN_ACCESSORY_STORES_CREDIT_AMT	Total Women HT Accessory Stores Credit Amount for HT Transactions
TOT_WOMEN_ACCESSORY_STORES_DEBIT_CT	Total Women HT Accessory Stores Debit Count for HT Transactions
TOT_WOMEN_ACCESSORY_STORES_CREDIT_CT	Total Women HT Accessory Stores Credit Count for HT Transactions
TOT_JEWLERY_DEBIT_AMT	Total Jewelry HT Stores Debit Amount for HT Transactions
TOT_JEWLERY_CREDIT_AMT	Total Jewelry HT Stores Credit Amount for HT Transactions
TOT_JEWLERY_DEBIT_CT	Total Jewelry HT Stores Debit Count for HT Transactions
TOT_JEWLERY_CREDIT_CT	Total Jewelry HT Stores Credit Count for HT Transactions
TOT_WOMEN_WEAR_STORES_DEBIT_AMT	Total Women Wear HT Stores Debit Amount for HT Transactions
TOT_WOMEN_WEAR_STORES_CREDIT_AMT	Total Women Wear HT Stores Credit Amount for HT Transactions
TOT_WOMEN_WEAR_STORES_DEBIT_CT	Total Women Wear HT Stores Debit Count for HT Transactions
TOT_WOMEN_WEAR_STORES_CREDIT_CT	Total Women Wear HT Stores Credit Count for HT Transactions
TOT_OTHER_DEBIT_AMT	Total Other Debit HT Amount for HT Transactions
TOT_OTHER_CREDIT_AMT	Total Other Credit HT Amount for HT Transactions



Table 9-1 (Cont.) List of Aggregate

Aggregate Name	Aggregate Description	Sc en ari o Ty pe
TOT_OTHER_DEBIT_CT	Total Other Debit Count for HT Transactions	HT
TOT_OTHER_CREDIT_CT	Total Other Credit Count for HT Transactions	HT
TOT_WIRE_CREDIT_AMT	Total Wire Credit Amount for HT Transactions.	HT
TOT_WIRE_DEBIT_CT	Total Wire Debit Count for HT Transactions.	HT
TOT_CRYPTO_CREDIT_AMT	Total Crypto Credit Amount for HT Transactions	HT
TOT_CRYPTO_DEBIT_CT	Total Crypto Debit Count for HT Transactions	HT
tot_credit_amount	Total credit amount	RL
tot_debit_amount	Total debit amount	RL
tot_amount	Total credit amount + Total debit amount	RL
tot_credit_amount_with_mita(min_ind_val_tshld)	Total credit amount with minimum individual transaction value as a parameter. min_ind_val_tshld should be present in the thresholds field of JSON value. If min_ind_val_tshld is not provided, it will default to zero.	RL



Table 9-1 (Cont.) List of Aggregate

Aggregate Name	Aggregate Description	Sc en ari o Ty pe
tot_debit_amount_with_mita(min_ind_val_tshld)	Total credit amount with minimum individual transaction value as a parameter. min_ind_val_tshld should be present in the thresholds field of JSON value. If min_ind_val_tshld is not provided, it will default to zero.	RL
tot_credit_amount_cash	Total credit amount in cash	RL
tot_debit_count_cash_with_rita(min_ind_val_tshld=,max_ind_val_tshld=)	Total debit count with a range of minimum and maximum individual transaction amounts. For CASH channel only	RL
tot_credit_amount_with_rita(min_ind_val_tshld,max_ind_val_tshld)	Total credit amount with range between min_ind_val_tshld and max_ind_val_tshld. Both min_ind_val_tshld and max_ind_val_tshld should be present in thresholds field of JSON value.	RL
tot_credit_count	Total credit count	RL
tot_debit_count	Total debit count	RL
tot_credit_amount_cash_with_rita(min_ind_val_tshld=,max_ind_val_tshld=)	Total credit amount with a range of minimum and maximum individual transaction amounts. For CASH channel only	RL



Table 9-1 (Cont.) List of Aggregate

Aggregate Name	Aggregate Description	Sc en ari o Ty pe
tot_credit_count_cash_with_rita(min_ind_val_tshld=,max_ind_val_tshld=)	Total credit count with a range of minimum and maximum individual transaction amounts. For CASH channel only	RL
tot_debit_amount_cash_with_rita(min_ind_val_tshld=,max_ind_val_tshld=)	Total debit amount with a range of minimum and maximum individual transaction amounts. For CASH channel only	RL
tot_debit_amount_cash	Total debit amount in cash	RL



10

# **Glossary**

This section describes a glossary of terms used across the OFSCA application.

#### **Account**

A bank account where funds can be deposited or withdrawn.

### Agent

A virtual money launderer powered by artificial intelligence can perceive the account balances and transaction monitoring rules in a simulated environment and move funds from a source account to a destination account within a simulated environment.

#### **Channels**

A transaction channel can be used to transfer funds in and out of an account, e.g., Wire. Controls Set A specific configuration of the transaction monitoring system, i.e., controls and limits.

### **Episode**

An episode is an instantiation of the policy learned by the agent to move funds from the source to the target account. It is a sequence of actions the agent takes to accomplish its goal.

#### **Experiment**

The training of an Agent in a simulated environment. The financial transactions made by a trained agent are subsequently used to measure the performance of a transaction monitoring system and surface insights.

### Granularity

The agent can transfer funds only in whole number multiples of granularity. The granularity is calculated as  $1/20 \times 1/20 \times 1/2$ 

#### **Jurisdiction Code**

The Jurisdiction associated with a customer is specified in Oracle's FCDM data model.

### Limits

Any limit or restriction on the amount of funds or the number of transactions that can be made from an account or using a channel.

#### Offerings

The financial products (Accounts and Channels) offered by an institution to its customers.

#### **Scenario**

A rule used to monitor the behavior of interest. Each scenario pertains to one focus type and underlying pattern and thresholds.

#### Segment



The Customer segment is associated with a customer. Each customer should belong to just one segment. The controls (thresholds and limits) a customer is subject to depend on the segment the customer belongs to.

#### **Source Account**

The account which is the source of funds. This is typically considered to be external to the institution.

#### **Target Account**

The account which is the intended destination of funds. The agent seeks to move the funds from the source account to this target or destination account.

### **Threshold**

A numeric value specifies a range of activities deemed to be of interest. Each scenario typically has multiple thresholds.

### **Transaction Monitoring System (TMS)**

Transaction Monitoring System is the collection of controls (including scenarios and other limits) that have been put in place to deter and detect suspicious activity and to comply with AML regulations.

