

**Oracle® Financial Services Investigation  
Hub**

User Guide

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# Document Control

This section provides the revision details of the document.

Version Number	Revision Date	Changes Done
1.0	Created: Feb 2019	Created first version of Investigation Hub User Guide.

This document provides functional and navigational information about the Oracle Financial Services Investigation Hub application. The features are explained in the various sections of the application. The latest copy of this guide can be accessed from Oracle Help Center ([OHC](#)) Documentation Library.



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# Preface

This section provides functional and navigational information about the Oracle Financial Services Investigation Hub (OFS IH) application and includes the following topics:

- [Summary](#)
- [Audience](#)
- [Related Documents](#)
- [Conventions](#)
- [Abbreviations](#)

## Summary

You can find the latest copy of this document in Oracle Help Center ([OHC](#)) Documentation Library which includes all the recent additions/revisions (if any) done till date.

## Audience

Oracle Financial Services Investigation Hub application User Guide is intended for end users such as Data Analysts and Data Scientists.

## Related Documents

This section identifies additional documents related to OFS IH application.

### **Oracle Financial Services Analytical Applications Infrastructure Related Documents**

The following document is available in Oracle Help Center ([OHC](#)) Documentation Library.

- *Oracle Financial Services Analytical Applications Infrastructure User Guide*

### **OFS Investigation Hub Application Related Documents**

The following IH documents are available in Oracle Help Center ([OHC](#)) Documentation Library:

- *Oracle Financial Services Investigation Hub Installation Guide*
- *Oracle Financial Services Investigation Hub Admin Guide*
- *Oracle Financial Services Investigation Hub Release Notes*

## Conventions

The text conventions used in this document are listed in the Table 0-1:

**Table 0-1 Conventions used in this guide**

<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

## Abbreviations

The abbreviations used in this document are listed in the Table 0-2:

**Table 0-2 Abbreviations and their meaning**

<b>Abbreviation</b>	<b>Meaning</b>
FCC	Financial Crime and Compliance
OFSA	Oracle Financial Services Analytical Applications
SQL	Structured Query Language



## About Oracle Financial Services Investigation Hub

This chapter provides a brief overview of the Oracle Financial Services Investigation Hub (OFS IH) application.

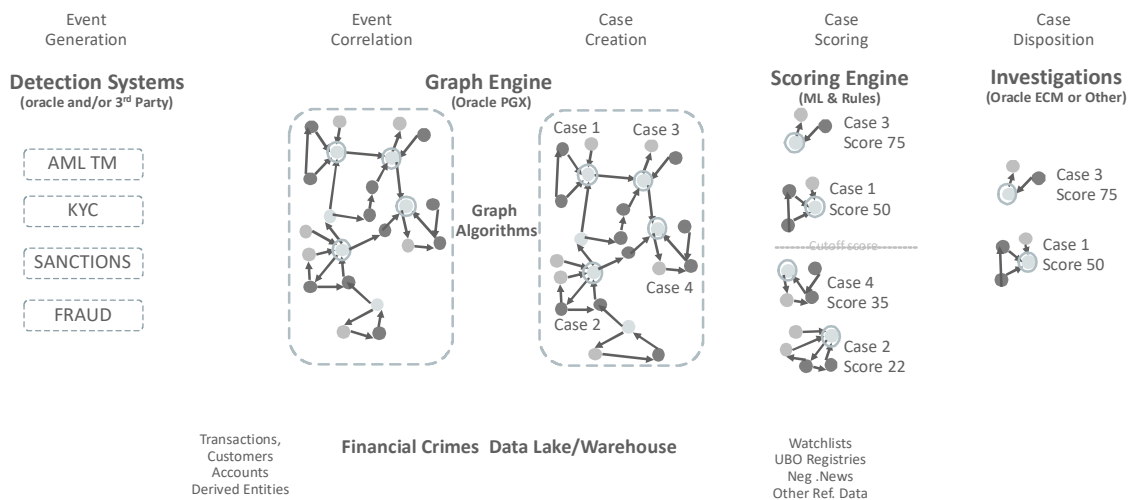
### Introduction

To effectively monitor anti-money laundering and anti-fraud programs in financial institutions, the most challenging need is to quickly detect and investigate the financial crime data.

Oracle Financial Services Investigation Hub is a comprehensive analytics toolkit for financial crimes detection and investigation. The OFS IH application provides the modular building blocks for developing the advanced analytical applications to counter financial crime. OFS IH application serves as a facilitator for innovation in anti-financial crime programs.

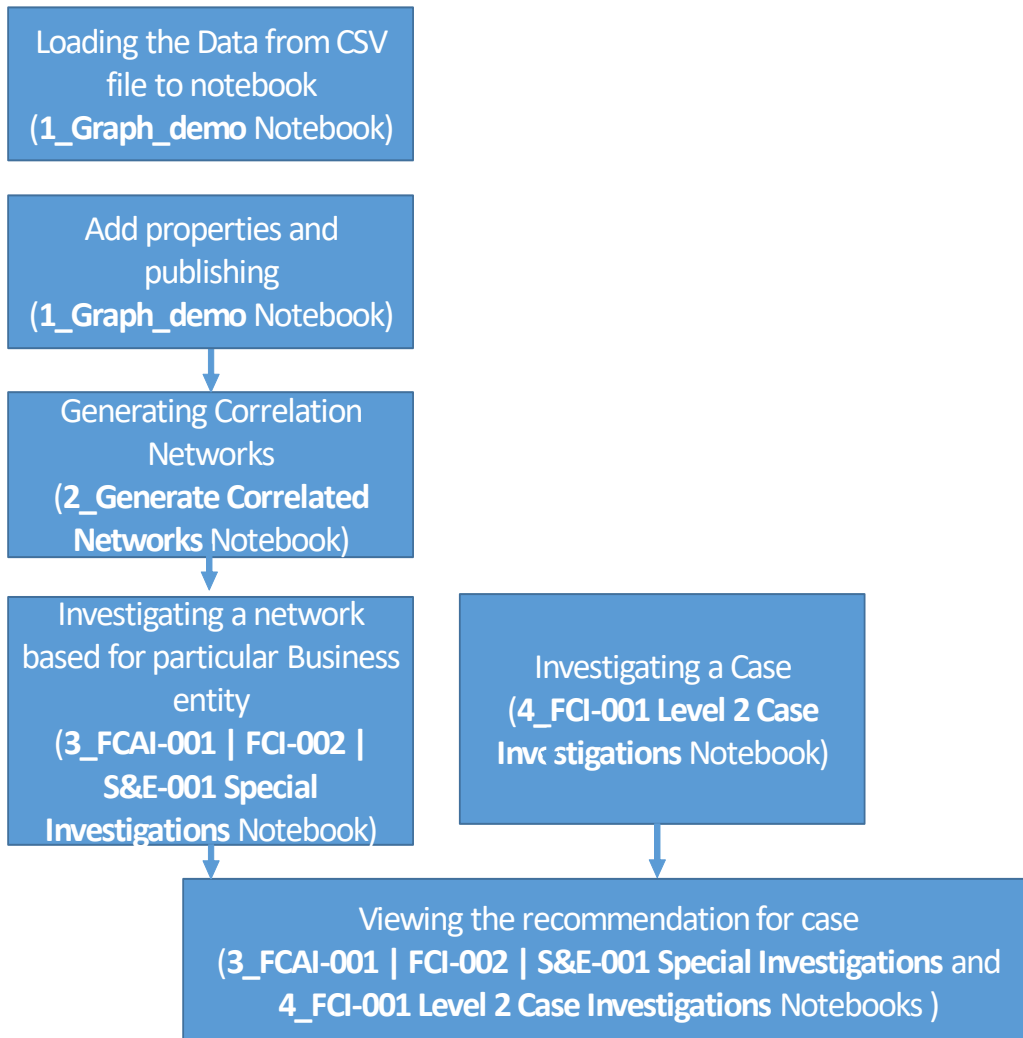
OFS IH uses Graph Analytics and Graph Query methods to investigate the case using various interpreters.

**Figure 1–1 Functional Flow**



# Application Workflow

*Figure 1–2 Investigation Hub Application Workflow*







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## Getting Started

This chapter introduces you to the OFS IH application and provides information required to use the application.

This chapter includes the following sections:

- [Investigation Hub Application Access](#)
- [Investigation Hub Home Page](#)

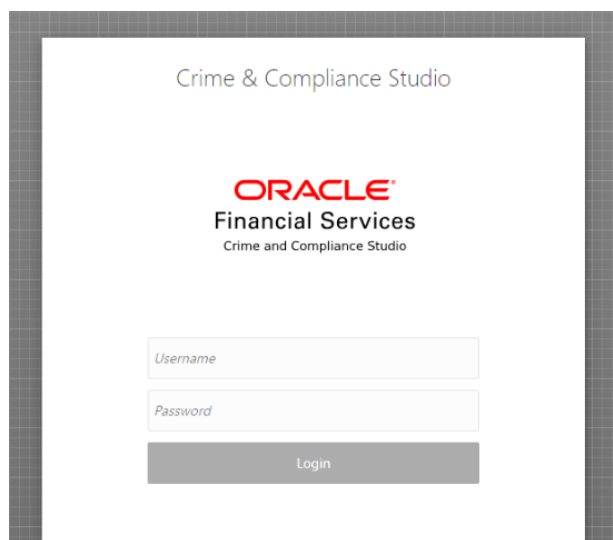
### Investigation Hub Application Access

To access the Investigation Hub application:

1. Enter the IH application URL in your browser in the following format:  
`http://<HOST>:7008`

The Investigation Hub Login page is displayed as shown in [Figure 2-1](#).

**Figure 2-1** Investigation Hub Login Page



The screenshot shows a login page for Oracle Financial Services. At the top, it says "Crime & Compliance Studio". Below that is the Oracle logo and "Financial Services" with "Crime and Compliance Studio" underneath. There are two input fields: "Username" and "Password". Below these is a "Login" button.

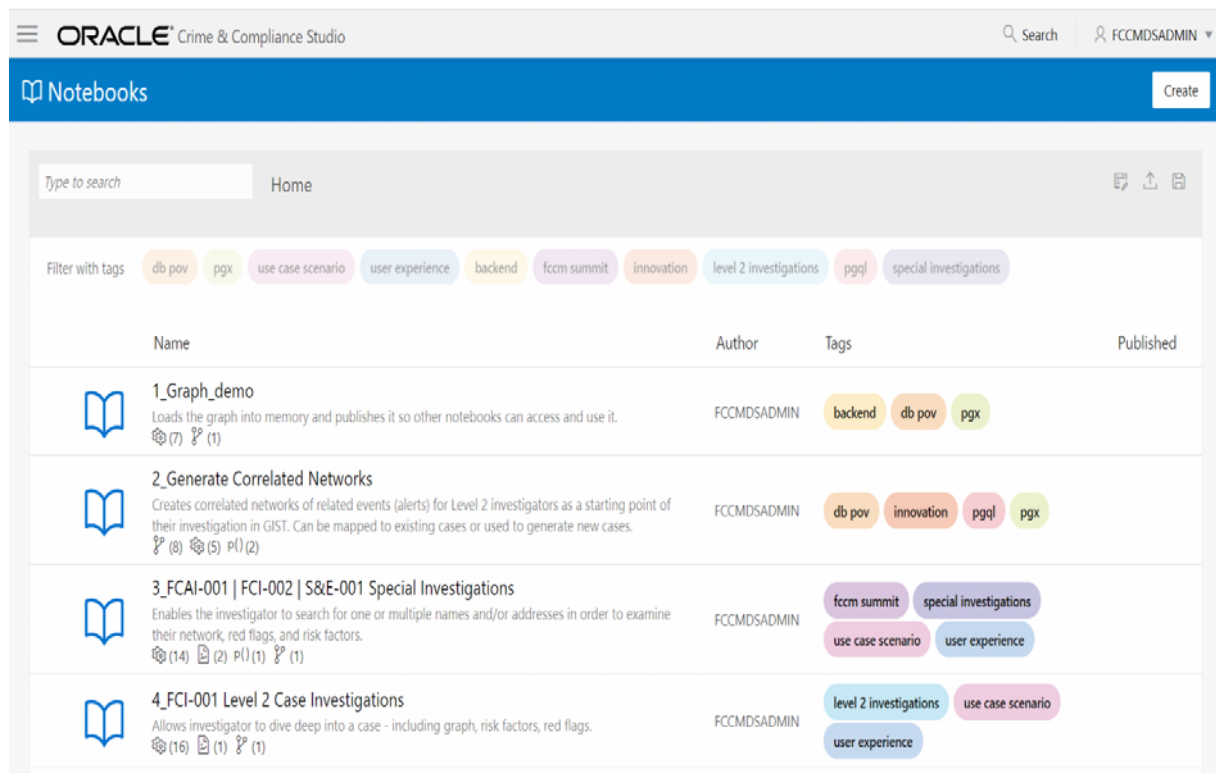
2. Enter the **Username** and **Password**.
3. Click **Login**.

The Investigation Hub page is displayed. For more information, see [Investigation Hub Home Page](#).

## Investigation Hub Home Page

The OFS IH home page displays the Notebooks that are mapped to the role of the logged in user and also displays the details of each Notebook, such as Name, Detailed Information, Published, and Tags. The Detailed Information includes the date and time of Notebook creation, number of compilations performed using different interpreters in a Notebook, and username of the Notebook creator. The OFS IH home page is as shown in [Figure 2-2](#).

**Figure 2-2 Investigation Hub Home Page**



## Investigation Hub Notebooks

The notebooks of OFS IH application are:

- **1\_Graph\_demo:** Loads the graph into system memory and publishes the graph for other notebooks to access and use it.
- **2\_Generate Correlated Networks:** Creates correlated networks of related events (alerts) for Level 2 investigators as a starting point of the investigation. Can be mapped to existing cases or used to generate new cases.
- **3\_FCAI-001 | FCI-002 | S&E-001 Special Investigations:** Enables the investigator to search for one or multiple names and/or addresses to examine the network, red flags, and risk factors.

- **4\_FCI-001 Level 2 Case Investigations:** Allows investigator to explore into a case - including graph, risk factors, and red flags.





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## Investigating Business Entity

The investigation of case is performed based on the transaction of customers (business entities) using 3\_FCAI-001 | FCI-002 | S&E-001 Special Investigations notebook.

Here, you can search the business entities (customers, address, and so on) and investigate the network, red flags, and risk factors.

This chapter includes the following topics:

- [Initializing the Investigation](#)
- [Searching Business Entity](#)

### Initializing the Investigation

To initialize the paragraph:

1. Navigate to Investigation Hub application page.
2. Navigate to 3\_FCAI-001 | FCI-002 | S&E-001 Special Investigations notebook.

Provide the graph name in **Initialization - I** paragraph as displayed in [Figure 3-1](#):

3. Execute the **Initialization - I** paragraph using below button.



4. Edit the path of the file in **Upload Names** paragraph.

**Figure 3–2 Upload Names Paragraph**



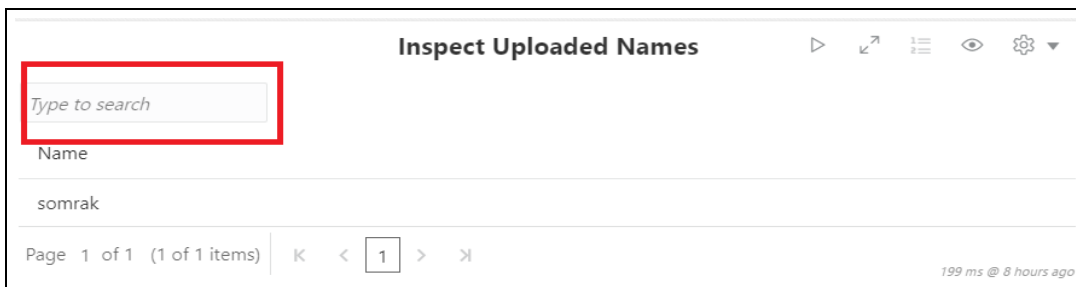
5. Execute the **Upload Names** paragraph.

## Searching Business Entity

You can search external entity (customer) name in any language to find the similar external entity matches. To find the transaction to inspect:

1. Navigate to Investigation Hub application page.
2. Navigate to **3\_FCAI-001 | FCI-002 | S&E-001 Special Investigations** notebook.
3. Navigate to **Inspect Uploaded Names** paragraph and enter name of customer.

**Figure 3–3 Inspect Uploaded Names Paragraph**



4. Execute **Inspect Uploaded Names** paragraph.
5. Define the search conditions in **Initial Screening Results** paragraph.

**Figure 3–4 Initial Screening Results Paragraph**

The screenshot shows the 'Initial Screening Results' interface. At the top, there are three filters: 'Top Critical Matches' set to 3, 'Sources' set to 'All', and 'Match Score Cutoff in %' set to 50. Below these is a search input field with the placeholder 'Type to search'. The main content is a table with the following columns: Type, Input, Translation of Input, Best Match, Translation of Best Match, and % Match. The table contains two rows of results, both with a 66% match score. The first row has 'name' as the type and '顾开来' as the input. The second row has 'name' as the type and '顾开来' as the input. At the bottom, there is a pagination control showing 'Page 1 of 1 (1-2 of 2 items)' and a status bar indicating '2924 ms @ 4 days ago'.

Type	Input	Translation of Input	Best Match	Translation of Best Match	% Match
name	顾开来	Gu Kai Lai	Gu Kailai	Gu Kailai	66%
name	顾开来	Gu Kai Lai	Gu Kailai	Gu Kailai	66%

6. Execute the **Initial Screening Results** paragraph.
7. The matched results will display in **Search Results** paragraph.

**Figure 3–5 Search Results Paragraph**

The screenshot shows the 'Search Results' interface. At the top, there are two filters: 'Number of Hops to Pre-Fetch' set to 20 and 'Number of Hops to Display' set to 5. Below these is a search input field with the placeholder 'Type to search'. The main content is a table with the following columns: Type, Input, Translation\_of\_Input, Best\_Match, Translation\_of\_Best\_Match, Source, and Match\_Score. The table contains two rows of results, both with a 66% match score. The first row has 'External Entity' as the type and '顾开来' as the input. The second row has 'External Entity' as the type and '顾开来' as the input. At the bottom, there is a pagination control showing 'Page 1 of 1 (1-2 of 2 items)' and a status bar indicating '2381 ms @ 8 days ago'.

Type	Input	Translation_of_Input	Best_Match	Translation_of_Best_Match	Source	Match_Score
External Entity	顾开来	Gu Kai Lai	Gu Kailai	Gu Kailai	Quantifind	66%
External Entity	顾开来	Gu Kai Lai	Gu Kailai	Gu Kailai	BunDradstreet	66%



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## Investigating a Case

The comprehensive investigation details of a case is performed using the 4\_FCI-001 Level 2 Case Investigations notebook. This notebook allows you to view and analyze correlation details - source correlation, linked events, and business data correlation.

This chapter includes the following sections:

- [Searching a Case](#)
- [Viewing the Case Overview](#)
- [Comparing the Data](#)
- [Viewing the Investigation Recommendation](#)

### Searching a Case

To search a case:

1. Navigate to Investigation Hub application.
2. Navigate to **4\_FCI-001 Level 2 Case Investigations** notebook.
3. Enter the Graph Name and Case ID as shown in [Figure 4-1](#).

**Figure 4-1** 4\_FCI-001 Level 2 Case Investigations



```
%px
//----- GRAPH SETUP -----//
//session.getGraphs().each {k, v -> v.destroy() }
sample_global_graph = session.getGraph("ANZ_graph5")

//----- CASE SETUP -----//
case_id = ""@(Case ID)""
correctCaseIdFormat = false
try {
  case_id = case_id as Long
  correctCaseIdFormat = true
} catch (e) {
  throw new Exception("Please add a numeric case ID.")
}
```

4. Execute the paragraph. The Case ID details are displayed as shown in [Figure 4-2](#)

**Figure 4-2** Execute button

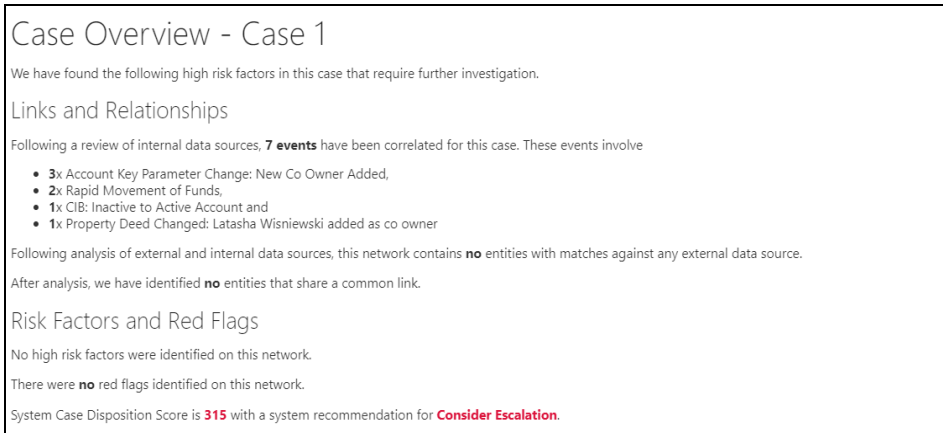


Details of Case ID will display.

## Viewing the Case Overview

The Case Overview paragraph displays the over all details of the investigated case, such as links and relationships, risk factors and so on as shown in [Figure 4-3](#).

**Figure 4-3 Viewing Case Overview**



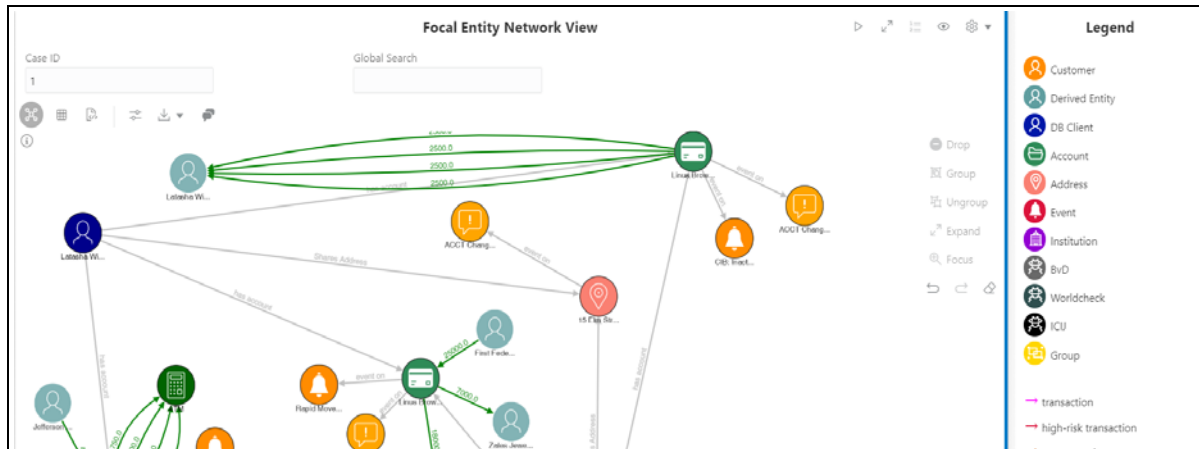
## Comparing the Data

You can compare the system reference data and On screen reference data to view the effect of any transaction deletion or addition.

To compare the data:

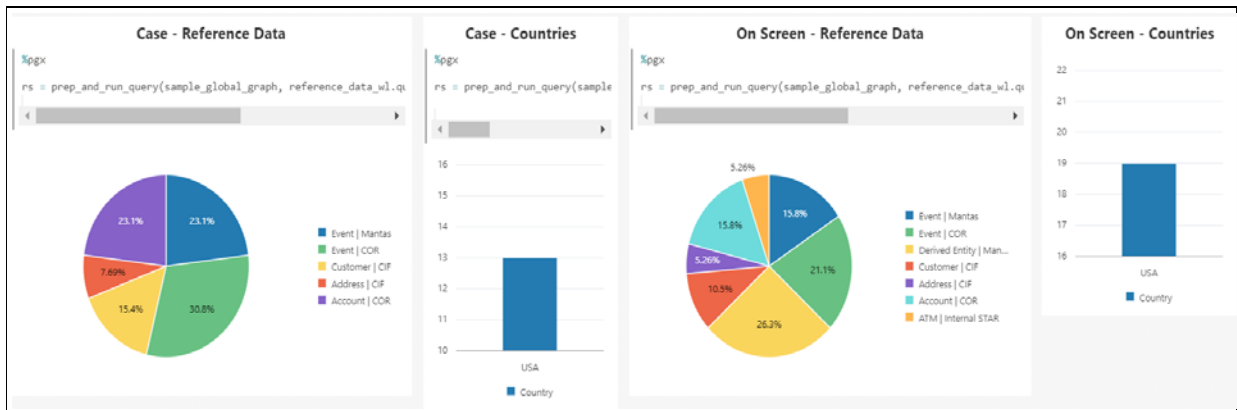
1. Navigate to **4\_FCI-001 Level 2 Case Investigations** notebook.
2. Navigate to **Focal Entity Network View** paragraph. Modify the paragraph as required.

**Figure 4-4 Focal Entity Network View**



After modifying the paragraphs, the comparison of reference data is displayed as shown in [Figure 4-5](#).

Figure 4–5 Comparing the Data



## Viewing the Investigation Recommendation

After the case investigation is performed and based on the scores, the recommendation for the case is displayed in the Recommendation section.

Figure 4–6 Viewing the Investigation Recommendation



Following is the criteria for recommendation:

- If the investigation score is between 25 to 51, the case status is displayed as **Unknown - Further Investigation Needed**.
- If the investigation score is between 50-76, the case status is displayed as **Special Investigation Needed**.
- If the investigation score is greater than 76, the case status is displayed as **Consider Escalation**.

