

# FraudCaster Master Design Document

Prepared By



For

Department of Human Services  
District of Columbia

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# 1. Overview

## 1.1. Document Purpose

The Master Design Document (MDD) outlines the configuration of Pondera's Fraud Detection as a Service (FraudCaster) solution. This document is intended to provide the District of Columbia (DC) Department of Human Service, hereafter known and referred to as "Customer", with an understanding of the configuration and solution design to be executed by the Pondera team to meet the Scope of Services contained in the Statement of Work. Upon sign-off, Pondera will leverage the information in this document to initiate the Customer configuration of Pondera's FraudCaster solution.

## 1.2. Document Scope

Pondera is a Software as a Service (SaaS) organization. As such, it is important to note that minor code changes, user interface enhancements, and other solution modifications may be implemented throughout the design, configuration, implementation, and subsequent Go Live phases of the project. These opportunities for continued fine-tuning and innovation may be implemented with coordination from the assigned Customer Success representative assigned to the project. This Master Design Document contains the requirements captured as of the date of signature and confirms the agreed upon solution requirement specifications.

## 1.3. Document Approach

Pondera's PROP Process produced the following artifacts, which are documented in this deliverable: MDD

- Data Fields and Mapping
- Data Dictionary
- High Value Retailer and Recipient Alerts
- Indicators
- Reports
- Profiles
- Role-Based Access Control (RBAC)

## 1.4. Document Version History

**Figure 1: Document Version History**

Version	Author(s)	Date Submitted	Notes
1.0	Amanda Huston		Initial Version
2.0	Tracy Miller		Update to Data Delivery & Release Date

## 2. Definitions, Acronyms, and Abbreviations

Figure 2: Definitions, Acronyms, and Abbreviations

Terminology	Definition	Abbreviation
<b>Alert</b>	Alerts/Reports are produced as a result of analytics operating on any combination of Customer and 3 <sup>rd</sup> party data. They typically alert the Customer to anomalous behavior and conditions that warrant further review.	Alert/Flag
<b>Change Control Board</b>	A designated group within Pondera that reviews and authorizes the content and delivery or software releases for the Customer.	CCB
<b>Entity</b>	A term used to describe a specific type of thing but in the abstract, e.g., a business entity (without naming a specific business).	
<b>FraudCaster</b>	The branded name for Pondera's analytic platform offered as a cloud-based, Software as a Service (SaaS).	FC
<b>Geospatial</b>	Refers to geographic mapping capabilities, which includes showing Google maps and the ability to map coordinates and relationships based on Customer and 3 <sup>rd</sup> party data points.	Geospatial
<b>Indicator</b>	An indicator is an informational data point from the perspective of a given Retailer's or Recipient's Profile.	Indicator
<b>Master Design Document</b>	This document is produced following the PROP, it is formal sign-off between Pondera and the Customer for the agreed upon system functionality which will guide the implementation of the customized solution for the Customer.	MDD
<b>Module</b>	A specific component or section of functionality within FraudCaster or CaseTracker.	Module
<b>My List</b>	A tool in FraudCaster that allows the user to track any alert or entity. My List is unique to each user in that other users cannot see the Retailers, recipients, or alerts you are monitoring.	My List
<b>Pondera Requirements Onboarding Process</b>	This is the process followed by Pondera to interact with the Customer to understand the system requirements.	PROP
<b>Pondera Risk Score</b>	A composite score assigned to Households based on the frequency and severity of alerts that have been tripped for the Household / members.	Pondera Risk Score
<b>Profile</b>	A summary view of demographic and transaction activity for a given Retailer or Recipient. Data typically includes enrollment information, related flags and indicators and transaction summary information as well as geographic mapping.	Profile
<b>Recipient</b>	An individual enrolled in a benefit program.	Recipient

Terminology	Definition	Abbreviation
<b>Release Notes</b>	A description of all the new functionality and changes that are included in a release.	
<b>Releases</b>	Each iteration of new software which is released to the production environment. Releases tend to have new features, enhancements, and fixes to known issues.	
<b>Role-based Access and Controls</b>	A security concept which defines certain business roles, each of which in turn have specific systems functionality to which they are limited.	RBAC
<b>Scorecard</b>	Pondera's branded system component which synthesizes prescribed alerts produced by the system over time and ranks the most anomalous Households based on the number and severity of alerts they have tripped.	Scorecard
<b>SQL Server Reporting Services</b>	Tools and services that create, deploy, and manage mobile and paginated reports.	SSRS
<b>Statement of Work</b>	Contractual document which describes in broad terms, the functionality and pricing for the system to be delivered and maintained by Pondera.	SOW
<b>SuperSearch</b>	Pondera's capability to do fuzzy searching for specific words or phrases across numerous data stores.	SS
<b>TR CLEAR</b>	FraudCaster leverages and integrates Thomson Reuters CLEAR database, which pulls from over 60 data sources to provide DOH access to billions of additional records about individuals and businesses for analytics and reporting. These sources include individual and business records, identity information, criminal backgrounds, incarcerations, deceased status, best known address, affiliates, linkages, social media, and more.	CLEAR

### 3. Project Overview

#### 3.1. Introduction

Pondera's FraudCaster is an innovative solution that assists state governments in the prevention and detection of improper payments, and suspected fraud, waste, and abuse (FWA). It is built "by investigators, for investigators," and includes powerful tools to detect fraud, investigate suspicious behavior, and enforce Medicaid rules. Pondera brings the industry's most robust, flexible, and user-friendly fraud detection solution, and the project team is leveraging this solution to deliver an exceptional service for the Customer to assess areas of compliance and risk within their plan.

#### 3.2. Project Schedule

The Pondera FraudCaster solution will be delivered in multiple releases. This allows Pondera to deliver the dashboard and leads sooner, and through an agile development process, will support continual learning and enhancements to the solution over time. Through this learning and iterative process, Pondera will release additional modules and include additional data sources as determined necessary. The current schedule and summary of release components is identified below.

**Figure 3: Project Release Schedule**

Release #	MDD Sign-Off	Release Date	Release Components
<b>SuperCLEAR</b>		Dec 2020  <i>**pending DC execution of credentialing documents</i>	<ul style="list-style-type: none"> <li>• SuperSearch module with CLEAR data integration</li> </ul>
<b>1</b>		May 5  <i>**Pending receipt of complete DC source data by 1/31/2021</i>	<ul style="list-style-type: none"> <li>• Profiles</li> <li>• Alerts (up to 20)</li> <li>• SuperSearch</li> <li>• Household Scorecard</li> <li>• Geospatial Maps (3)</li> </ul>

#### 3.3. Assumptions, Constraints, and Restrictions

If during the configuration process Pondera identifies that there is insufficient data to support any of the alerts/reports identified during PROP (Pondera Requirements and Onboarding Process), or if a selected alert has insufficient results, Pondera will work with the Customer to select a more viable alert. This will help to ensure the quality of the alerts provided in Release 1.

Through the PROP process and assessment of available data, Pondera and the Customer have identified the critical types of Alerts and Reports needed for the Customer to manage suspected fraud, waste, and abuse with Release 1 of the project.

#### 3.4. SuperSearch

SuperSearch is a feature of FraudCaster that allows users to search the Customer's data on a range of data elements for Retailers and recipients. The specifications below will be built out for Release 1. Following Release 1.0, the Pondera team will work with the Customer to identify requested

configuration changes, process them through the change control protocol, and implement them in future releases.

When a SuperSearch is performed, it produces a list of match candidates, each with summary information. While maintaining the list of candidates, the user can select each row and receive more detailed information in a mini profile without leaving the search results page. When the desired candidate is identified, the user can proceed to the full profile from a mini-profile button or a search results hyperlink. All users will have access to the Standard SuperSearch functionality with two (2) users granted SuperSearch Premium permissions, which will offer the ability to search public records and social media data in addition to the Customer's program data. Additional premium licenses can be provisioned pending a SOW change order.

**Figure 4: Super Search view and Mini-Profile**

The screenshot displays the Super Search interface. On the left, there are filters for 'Fuzzy Program Data', 'HEAD OF HOUSEHOLD' (500), 'ALL RECEIPTS' (31), and 'Retailers' (31). A search bar is present. The main table lists search results with columns: Name, Address, Case Number, and Status. The table shows multiple entries for various individuals, including T. Jones, AMANDA JONES, CORINE JONES, JONIE JONES, JANA JONES, CHRISTOPHER JONES, JANA JONES, JULIE MOYER, ALEXANDER JONES, PAMELA JONES, DARA JONES, FRED JONES, HERMINIA JONES, MICHAEL JONES, ARMANNA JONES, CHRISTINE JONES, TREVON JONES, DONALD JONES, GERALDINE JONES, MARCELUS JONES, ANGELO JONES, JARION JONES, BONNIE JONES, AMARSA JONES, and JEREMIAH JONES. Each entry includes an address and a case number, and is marked as 'Open' or 'Terminated'. On the right, a 'Mini-Profile' for 'TIMOTHY JONES' is shown, containing personal information (First Name, Last Name, SSN, Birth Date, Age, Home Phone, Cell Phone, Work Phone, Messaging Phone, Email, Case Number, Status) and transaction details (Address, UPI Person ID, Annual Transaction Amount, LTD Transaction Amount, Household Size, Homeless, Last Transaction Date). A 'View Profile' button is located below the mini-profile.

### 3.5. Alerts & Reports

Alerts and Reports are available through the Dashboard and can be accessed by users to evaluate Retailer and recipient behavior patterns. The Pondera solution was developed so that the results of the alerts, reports, and data are usable, intuitive, and easily viewed. The solution supports varied functionality to effectively communicate results via the Customer's dashboard, utilizing implemented data models and analytical measures. Through the PROP process and assessment of available data, Pondera and the Customer have identified the critical types of Alerts and Reports needed to manage areas of compliance and risk within the program. The following sections outline additional details pertaining to Alerts and Reports.

All Alerts contain hyperlink functionality to the associated Retailer/Recipient profiles. Matching criteria is based on available data and dependent on the third-party source, if used.

### 3.5.1. Alerts

Alerts are bucketed into three categories within the Dashboard: Retailer Alerts, Recipient Alerts and shared alerts for common attributes. All Alerts are accessed and reviewed within FraudCaster, and when drilling down into an Alert, the user will always see a standard set of fields pertaining to the entities associated to a given Alert. Furthermore, Alerts are assessed according to an Alert Categorization Key which factors in additional data such as Alert Tier Types as seen identified in the Figure below.

**Figure 3: Alert Categorization Key**

Tier Types	
1	Potential for Fraud/Risk
2	Highly Suspect
3	Needs Review
4	Suspect Element
5	Informational Data Point

#### *Recipient and Retailer Alerts*

For Recipient and Retailer Alerts, within FraudCaster, when drilling down into an Alert, the user will always see a standard set of fields pertaining to the entities associated to as shown in the Figures below.

**Figure 6: Fields for Recipients**

Standard Fields on Recipient Alerts		
Tier		Rank
Recipient First Name		Recipient Last Name
Case ID		Recipient ID
Recipient Gender		Recipient DOB
Total Benefit Amount		Total Benefits Spent
Detail Bar (Alert Action, Watchlist)		Other Alert specific information

**Figure 7: Fields for Retailers**

Tier		Rank
Retailer Name		Retailer FNS
Retailer Address		Retailer City



Retailer State			Retailer Zip
LTD Transaction Amount			LTD Transaction Count
Detail Bar (Alert Action, Watchlist)		Other Alert specific information	

### 3.5.2. Release 1 Alerts

Figure 8 below, outlines additional details pertaining to the up to 20 Alerts committed for Release 1. There are 23 alerts listed to allow for any shifts once the algorithms are run against the client dataset.

**Figure 8: Release 1 Alerts**

Priority #	Flag ID	1-5 Flag Tier	Flag Type	Flag Display Name
3002	1	B	Deceased Recipient	Recipient has transactions with dates after date of death
3022	1	B	Recipient Incarcerated during Period of Eligibility	Recipient has program status of "Open" or "Pending" and an overlapping period of incarceration in a prison
3011	2	B	Prolonged Out-of-State Transactions	Recipient has 90 days of out-of-state transaction activity
3013	2	B	Exclusive Out-of-State EBT Utilization	Recipient has exclusively utilized their EBT card out of state for the last 60 days (Date of last transaction and number of days included in details for filtering/sorting)
3401	2	B	ID Theft / Synthetic ID	Recipient demographic information contains 2 or more indicators of synthetic or stolen identity
3216	2	B	PARIS Interstate Match	Identifies Recipients with a match to the PARIS Interstate data where DC is the second state where benefits derive.

## Master Design Document

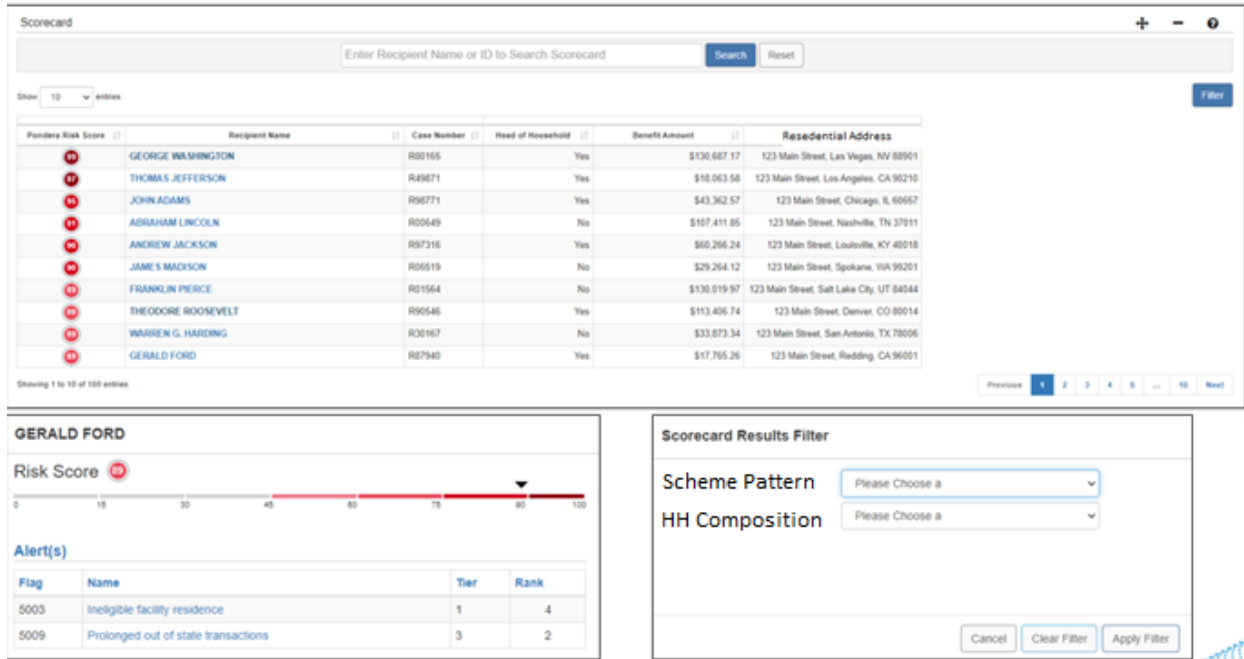
<b>3218</b>	2	B	High Dollar/Whole Dollar Transactions	Identifies Recipients with high dollar/whole dollar transactions for at least a consecutive 3-month period. High dollar is derived across all the transactions.
<b>3219</b>	1	B	Exclusive Out-of-State EBT Utilization	Recipient has exclusively utilized their EBT card out of state
<b>3005</b>	3	B	Recipients Traveling 25 Miles or More	Recipients traveling greater than or equal to 25 miles with transactions of \$100 or more at a Big Box/Super Club
<b>3016</b>	1	B	Double Dippers	Identifies recipients associated with two or more cases in a month.
<b>3018</b>	3	B	Recipient Transaction Spike at SuperClub	Recipient has a large transaction amount spike involving SuperClub Retailer within 48 hours after convenience store transaction
<b>3021</b>	3	B	Small to Large Transaction	Recipient has a small transaction followed by a large transaction at same location. Small is less than \$5.00/large is \$100 or more.
<b>3403</b>	3	B	Excessive Balance Inquiries	Recipient has requested their EBT card balance 12 or more times in the last 12 months
<b>3404</b>	3	B	Excessive EBT Address Changes	Recipient has changed their EBT card mailing address 2 or more times in the last 12 months
<b>3405</b>	3	B	Recipient Address is a CMRA	Recipient's residential address matches to known CMRA.
<b>New</b>	2	B	EBT Cards mailed out of District	EBT cards mailed out of District; those furthest away have highest rank.
<b>3027</b>	2	R	Smash and Grab Alert	Multiple abnormal spikes in transaction activity
<b>3028</b>	2	R	Transaction Volume Spike Indicator	Transaction volume (#) increased 150% or more over the previous 3-month period

<b>3029</b>	2	R	Transaction Amount Spike Indicator	Average transaction amount (\$) has increased 150% or more over the previous 3-month period
<b>3030</b>	2	R	Recipient Volume Spike Indicator	Recipient volume (#) has increased 150% or more over the previous 3-month period
<b>3032</b>	2	R	Convenience Stores with High Dollar Transactions	Identifies convenience stores with greater than 50% of their transactions for amounts of \$50 or more
<b>3042</b>	3	R	Retailers with High Volume of Traveling Recipients	Retailers with recipients traveling greater than 2.5 miles at a rate that exceeds the peer average by 20% or more
<b>NEW</b>	2	B	Households Sharing Device ID	Two or more households using the same Device ID (Data from Citizen Portal and IP Address from additional data sets)

### 3.6. Scorecard

Scorecard allows users to rank the household with the highest level of overall non-compliance and risk within the program for potential overpayments. Alert information, along with other analytics and patterns, are fed into Pondera's algorithm and assigned a risk score from 0-100. Factors such as number of alerts, the variety of alerts, rank, and tier are combined. After system deployment on the initial go live, Pondera will tie together outcome data from the case tracking system to continually fine tune the risk scoring algorithm to triage the highest risk cases to the top. These metrics are continually reviewed during quarterly reviews.

**Figure 9: Scorecard, Scorecard Popup and Scorecard Filters**



**Scorecard Columns:** Pondera Risk Score, Recipient Name, Recipient ID, Eligibility Case Number, Benefit Amount, Residential Address

**Filters:** Scheme Pattern (Trafficking, Eligibility [Multi-select]) and HH Composition

The scorecard also has the ability for an individual household to be 'cleared' so they are removed the list.

### 3.7. Profiles

Profiles present FraudCaster users with information related to a Retailer or recipient and contain a combination of the Customer's data and Third-Party data, dependent on Alert/Report selections. Profiles contain basic demographic and Customer data for a given entity and identify if that entity has any associated suspected fraud or abuse Indicators. Because the Customer data tracks both Retailers and recipients, Pondera has configured two distinct profiles, which contain different basic information and distinct types of Indicators. This section outlines the profile information to be configured for Release 1.

### 3.7.1. Household Profiles

Below is a Release 1.0 mock-up of the Household Profile, which includes demographic information and indicators. In addition, the profile will display a detailed view containing street view map displaying physical location and all Alerts tripped for Release 1.

Note: Household profiles are designed to be specific to a SNAP eligibility case. The head of household information would be displayed on top and the household member information would be displayed below.

Household Profiles will also have indicators for any shared alerts, CMRA indicator, and Trafficking. The indicators will be green if there is no concern or red if the underlying data shows non-compliance. Additional data (such as the shared phone number) would be provided.

**Figure 10: Household Profile and Indicators**

Demographics as of June 2019 (Newest) ▾

Watchlist(s)

Head of Household	Case Number	Recipient ID
	DOB:	SSN:
Address:	City:	State:
County:	Zip:	
Marital Status:	Gender:	Age:
Email:	US Citizen:	Household Size:
Phone Number:	Homeless:	Simplified Reporter:

Program Status

SNAP

Status: Terminated

Eligibility: 06/2019

Other programs?

Household Members						
Name	SSN	DOB	Address	City	State	Relationship

Recipient Transaction Summary

Annual Transaction Count:	LTD Transaction Count:	Total Retailers:
Annual Transaction Amt:	LTD Transaction Amt:	Last Transaction Date:

Shares with other Recipient

Address: ☒ No

Phone: ☒ No

Email: ☒ No

### 3.7.2. Retailer Profiles

Retailer Profiles will be built off the data provided and will have summary information for the retailer along with any alerts listed. Shared Indicators will also be available along with an indicator for Alert 3032 (Convenience Stores with High Dollar Transactions).

### Figure 11: Retailer Profile

Retailer Profile + - ?

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**Base Retailer Information**

<b>Retailer Name:</b> QUICKIE MART	<b>DBA Name:</b> Not Available	
<b>Website URL:</b> Not Available	<b>Tax ID/FEIN:</b> Not Available	<b>FNS #:</b>
<b>Address:</b> 123 Simpsons Way		
<b>City:</b> Spring Field	<b>State:</b> ?	<b>Zip:</b> Not Available
<b>County:</b>	<b>Phone Number:</b> 408-916-2290	<b>Email Address:</b> Unknown
<b>Business Category ## Code:</b>	<b>Business Category Description:</b> Unknown Business Type	<b>Total # of Stores:</b> Not Available

[Watchlist\(s\)](#)

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**Retailer Transaction Summary**

<b>Annual Total Transaction #:</b> 22	<b>LTD Total Paid:</b> \$117.86
<b>Annual Total Paid:</b> \$117.86	<b>Annual Average Transaction Amt:</b> \$5.36
<b>Total Recipients (Most Recent Batch):</b> 17	<b>% of Recipients Traveling 50 Miles+ (Most Recent Batch):</b> 0.00%

### 3.8. Geospatial

Geospatial maps are available in 2 locations: Entity profiles (recipient/retailer) when it is available for all entities or on the geospatial tab where it will highlight a subset of entities. The maps are interactive, and users can zoom in/out as well as move the map around.

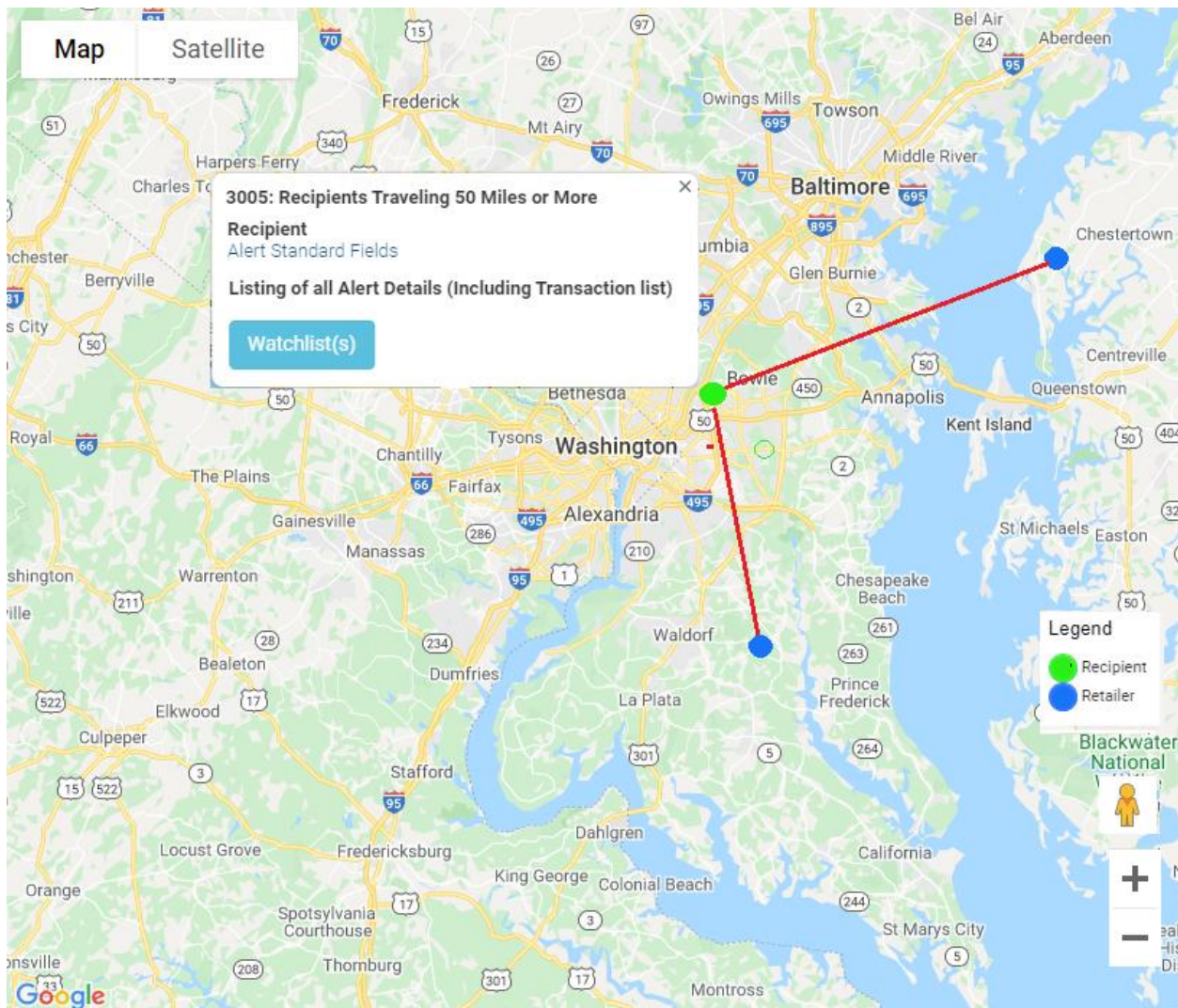
3005: Recipients traveling greater than or equal to 25 miles with transactions of \$100 or more at a Big Box/Super Club

Fields displayed on node:

- Recipient Standard fields
- Largest Purchase in previous 90 Days
- Count of Transactions at Super Club
- For each Big Box Retailer:
  - Retailer information (Name, Address, FNS Number, Phone Number)
  - Distance from Recipient
  - Transaction Amount and Date (Can be multiple)



Figure 12: Alert 3005



3018: Recipient has a large transaction amount spike involving SuperClub Retailer within 48 hours after convenience store transaction

Fields displayed on node:

- Recipient Standard fields
- Transaction Spike Count
- For each Transaction Spike:
  - Convenience Store Information (Name, Address, FNS Number, Phone Number)
  - Transaction Amount and Date
  - Super Store Information (Name, Address, FNS Number, Phone Number)



- Transaction Amount and Date
- Hours Between Transaction
- Spike % Increase

### 3.9. Role-Based Access

FraudCaster includes configurable Role-Based Access (RBAC) so that each user is allowed access to the information that is most pertinent to their work. Each user's role will be identified prior to training. Customized roles may be added or modified during development and after Go Live. The Case Tracker system will have its own RBAC with separate abilities.

The following matrix identifies the modules each role can access. Below are the standard roles specifically related to the Customer's users. Prior to training, the Customer will identify which roles to enable and the associated module access by completing the RBAC Matrix.

**Figure 13: Role-Based Access Matrix**

#	Role Type	Access to Module					
		Profiles	Standard SuperSearch	Super Search Premium	Geospatial	Alerts / Reports	Scorecard
1	Basic User	X	X		X	X	X
2	Premium User	X	X	X	X	X	X
3	Restricted role	X	X				

## 4. Document Approval

### Release 1 MDD and Requirements Design Matrix Approval

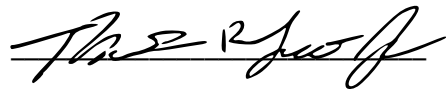
I have reviewed the requirements and specifications specific to Release 1 in the Pondera Master Design Document related to FraudCaster approve them for configuration work. I understand that changes to these specifications during the development process could delay go-live, depending upon the scope of the requested change(s).

*Client Approval – DC Department of Human Services Office of Program Review, Monitoring & Investigations*

Christa Phillips, Chief Accountability Officer

Date 01-05-2021

*Pondera Approval*



Date 1/7/2021

Tom Lucero, Senior Director of Technology