

**CELENT**

# **INSURANCE FRAUD- DETECTION SOLUTIONS: PROPERTY AND CASUALTY INSURANCE, 2024 EDITION**

A Celent SolutionScape, powered by VendorMatch

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# EXECUTIVE SUMMARY

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A claims fraud-detection system helps insurance carriers identify fraudulent claims at both the individual and organizational levels. It is typically used by claims teams and in special investigative units (SIU). A variety of business benefits can be achieved from claims fraud-detection solutions, but two of the primary goals are:

- Improving the carrier's loss ratio by identifying illegitimate claims.
- Enhancing the overall customer experience by giving carriers the confidence to quickly indemnify claims that are deemed valid.

This report provides an overview of claims fraud-detection solutions for property-casualty insurance carriers. The report profiles 10 solutions, providing an overview of their functionality, customer base, technology, SaaS capabilities, implementation, pricing, and support.

Celent asked firms that provide claims fraud-detection solutions for property-casualty insurers to enter information about their company and products into Celent's free digital catalog, VendorMatch (<https://www.celent.com/vendorsmatch>). This report presents certain extracts of that information. Additional details about each product are available in VendorMatch, subject to the VendorMatch terms of use.

The following vendors are included in this report:

- Carpe Data
- Charlee.AI
- EIS Group
- Friss
- Hugin Expert
- LexisNexis Risk Solutions
- Quantexa
- SAS
- Shift Technology
- Verisk

While this list is not exhaustive, Celent believes it provides a valuable sampling of vendors.

The goal of this report is to help property-casualty insurers define their claims fraud-detection solution requirements if they are looking to select a partner. It can be used as the first step toward creating a short list of vendors for evaluation. Insurers continue to have a broad spectrum of systems and vendors to consider when looking for a solution to fit their needs. Insurers can leverage their access to the authors through analyst access calls to learn more about the vendors.

For a breakdown of specific technical and functional capabilities in a fraud-detection system, please see the companion report to this one, *So You Want to Buy a Fraud Detection System, 2024 Edition*. This report does not include vendor profiles, but rather breaks down the capabilities of the average system, including current trends as of the date of publication. These reports will be updated every time Celent delivers an updated version of the vendor reports in order to provide a clear view of the marketplace from a macro point of view.

# REPORT METHODOLOGY

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## Approach

To analyze the capabilities of P&C fraud-detection solutions, Celent invited a broad set of vendors to participate in this year's report. Not all vendors chose to participate. There was no cost for vendors to be included.

Each participating vendor completed an online RFI in Celent's VendorMatch/RFX platform. The RFI asked for data about the features provided by the solution, its technology and architecture, the current client base, pricing models, and the vendor itself. RFIs were completed for 10 products.

Celent used that data to draft profiles but did not independently confirm the information provided by the vendors. Vendors had an opportunity to review their profiles for factual accuracy. Some of the vendors profiled in this report are Celent clients, and some are not. No preference was given to Celent clients for inclusion in either the report or the subsequent profile.

## About the Profiles

Each profile is structured the same way. Profiles present information about the vendor and its fraud-detection offering, client base, and staff dedicated to the platform. Charts provide more detailed information about specific features such as functionality, public cloud provider support, and pricing.

The profiles are presented in alphabetical order.

## Limitations

Celent believes that this study provides valuable insights into current offerings in the P&C fraud-detection marketplace. However, readers are encouraged to consider these results in the following context. The vendors self-reported. Participants in the study were asked to indicate which capabilities they provide in addition to requesting general information about their client base. While this information was supplemented with publicly available information where possible, Celent did not confirm the details provided by the participants.

# P&C FRAUD-DETECTION SOLUTION PROVIDERS



## The Solution Market

Each vendor in this report offers a fraud-detection solution for P&C carriers.

Table 1: Snapshot of P&C Insurance Fraud-Detection Solutions	
VENDOR	PRODUCT
Carpe Data	ClaimsX Ultra
Charlee.ai	Charlee.ai
EIS Group, LTD	Insurance Fraud Detection and Risk Analysis Systems
Friss	Friss Claims Analytics
HUGIN	Bayes Fraud
Kube Partners	Detector
Quantexa	Fraud Detection
SAS	SAS Fraud Decisioning for Claims
Shift Technology	Shift Claims Fraud Detection
Verisk	Verisk’s Anti-Fraud Solutions
Source: Vendor RFIs	

# CELENT TECHNICAL CAPABILITY MATRIX

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Each of Celent's solution reports include the Technical Capability Matrix. We have placed each solution into one of five categories based on the sophistication and breadth of its technology and functionality (i.e., plotting the A and B dimensions). Solutions are not ranked within the assigned category; they are listed alphabetically.

The five categories are:

- I. **Luminary:** Excels in solution capabilities; generally, has a leading market presence.
- II. **Technology Standout:** Excels in technology modernity, although often without the same depth of features as leading competitors. Frequently newer, these solutions have chosen a focused set of functions with which to begin their journey.
- III. **Functionality Standout:** Excels in functionality and likely to have a large installed base. Often more established, these solutions have built out a robust set of features over many years.
- IV. **Noteworthy Solution:** Potential challengers to the more established competition. They may occupy a niche place in the market, whether by targeted use case, sector-leading features, client size, or geography.
- V. **Developing Solution:** Typically, new to the market. They may have the potential to mature into a market challenger.

The Technical Capability Matrix for this year's P&C Fraud Solutions is on the following page.

Figure 1: Celent Technical Capability Matrix



Source: Celent



# VENDOR PROFILES

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## About the Profiles

Each of the vendor profiles presents information about the vendor and its solution, professional services and support capabilities, customer base, functionality, technology, partnerships, implementation time frames, and costs.

New this year is a generative AI (GenAI) functionality table. The advent of this technology holds great promise for fraud detection, as older iterations of artificial intelligence have already proved out. For more specific insight into how GenAI will interact with fraud detection, please see the companion report, *So You Want to Buy a Fraud Detection System*, 2024 Edition.

Profiles begin on the next page.

# CARPE DATA: CLAIMSX ULTRA

## Company and Product Snapshot

**Table 1: Company Snapshot**

<b>Year Founded</b>	2016
<b>Headquarters</b>	Santa Barbara, Calif.
<b>Number of Employees</b>	118
<b>Revenues (USD)</b>	Not disclosed
<b>Financial Structure</b>	Private with outside investors
<b>VendorMatch Link</b>	<a href="https://www.celent.com/vendormatch/discovery/solutions/557755916">https://www.celent.com/vendormatch/discovery/solutions/557755916</a>

Source: Vendor RFI



**Table 2: Product Snapshot**
























<b>Name</b>	ClaimsX Ultra
<b>Year Originally Released</b>	2016
<b>Current Release and Date of Release</b>	ClaimsX Ultra/2023
<b>Revenue Derived from the Product</b>	Cannot disclose
<b>R&amp;D Expense</b>	R&D expense over the past two years has been on average 35% of total revenue attributed to this solution
<b>FTEs Providing Professional Services for Product</b>	35
<b>Notable Clients</b>	Auto Owners, Zurich, Coterie, The Hanover, The Hartford, Farmers

Source: Vendor RFI

## Functionality

**Table 3: Functionality**

Function	In Production	Supported But Not in Production	Not Supported
<b>Data</b>			
Aggregate historical data from different internal databases			
Integrate with external data capture tools (IoT, wearables, sensors, etc.)			

Function	In Production	Supported But Not in Production	Not Supported
Consolidate data coming from external databases			
Data quality checking tools			
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)			
Uses additional hardware infrastructure in the cloud to run models on large amount of data			
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models			
Rules, variables, and models repository			
Compare multiple scenarios / models			
Real time fraud scoring service			
Create multi-variable based algorithms			
Schedule model run-time			
Prioritize model updates and model results			
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification			
Anomaly detection			
Social network analysis			
Claims severity modeling			
Claims frequency modeling			
Claims settlement optimization			
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards			
Assign/share fraud cases with other investigators			
Check fraud case logs (status changes, audit trails, etc.)			
<div>  = Available out of the box  = Configurable through a scripting language / coding  = Under development / on road map </div> <div>  = Configurable using simple tools for business user  = Available with integration to a third party solution  = Could develop, would be considered customization </div> <div>  = Configurable using simple tools for IT user  = Available with integration to a separate module provided by this vendor  = Not available / not applicable </div>			

Source: Vendor RFI

## GenAI Functionality

Table 4: GenAI Features	
Elements	Availability
Generative AI integration for fraud detection	✓
Gen AI-based analysis of unstructured data for fraud detection	✓
Integration with external data sources to enhance fraud detection	✓
Automation of claims processing workflow using generative AI	✓
Adaptive learning from new fraud patterns over time	✗
Synthetic data generation for AI training purposes	✓
Automatic creation of communication templates or responses using generative AI	✓
Anomaly detection in insurance claims documents and images	✓
Compliance with insurance regulations and ethical guidelines	✓
Provision of metrics to measure the effectiveness of generative AI in fraud detection	✓
Legend: ✓ = In production; □ = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

## Customer Base

Not provided

Source: Vendor RFI

Table 5: Implementations by Country	
Region	Countries
North America	Not provided
Europe	
Middle East	
Africa	
Asia-Pacific	
Central America	
South America	
Caribbean	
Source: Vendor RFI	

## Technology

**Table 6: Technology Options**

Technology Options	Responses	
Code Base	Java: 25%; PHP: 55%; Scala 20%	
Integration Methods	Custom APIs	
API Details	✓	The API is documented
	✓	External systems can trigger an event in the system which can be responded to by a workflow or business rules system
	✓	API management supports local or global standards such as ACORD application creation and rendering
	✓	API sample codes are available to clients
	✓	API developer portal is available for support and descriptions
	✓	API testing portal and the ability to use scripts on website is available
	✓	The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs
	✓	API version management is available
	✓	Access to the APIs is managed and use of APIs tracked by developers
	✗	Training in extending the system is offered

Legend: ✓ = Available; ✗ = Not available

Source: Vendor RFI

**Table 7: SaaS Capabilities**

Elements	Availability
Support a multi-tenant architecture	✗
Type of effort required to update the solution	Updates performed internally, rollout cadence dependent on client
Cadence of upgrades for multi-tenant deployments	Not provided
Deployment approach support elasticity	✓
Current APIs-related strategy	✓
Ability of the deployment model to leverage a serverless approach	✗
Ability to enable independent services (microservices)	✗
Proportion of the system architected as microservices	Under 25%

Elements	Availability
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	×
Need for containerization to run in a cloud	×
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	×
<u>Legend:</u> ✓ = Yes × = No	
Source: Vendor RFI	

## Artificial Intelligence Capabilities

**Table 8: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	✓
Unsupervised learning	×
Supervised learning	✓
Feature extraction	✓
Machine vision	✓
Natural language generation (NLG)	✓
Natural language understanding (NLU)	✓
Speech recognition	×
Speech generation	×
Conversational capability	×
AI workflow	×
Predictive analytics	✓
Image recognition	✓
Generative AI / LLMs	✓
<u>Legend:</u> ✓ = In production; □ = Supported but not in production; × = Not supported	
Source: Vendor RFI	

**Table 9: Change Tooling and Upgrades**

Types of Changes	Availability
Business Rule Definition	✓
Data Definition	✓
Table Maintenance, List of Values, etc.	✓

Types of Changes	Availability
Interface Definition	✓
Product Definition	✓
Role-Based Security, Access Control, and Authorizations	✓
Screen Definition	✓
Workflow Definition	✓
Legend: ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; x = Not available	
Source: Vendor RFI	

**Table 10: Public Cloud Options**

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	x	x	x	x
Amazon AWS	x	x	x	x
Google Cloud Platform (GCP)	x	x	x	x
Alibaba Cloud	x	x	x	x
IBM Cloud / Bluemix	x	x	x	x
Oracle Cloud	x	x	x	x
Salesforce Cloud, Force.com, AppExchange	x	x	x	x
Other	x	x	x	x
Legend: ✓ = In production; □ = Supported but not in production; x = Not supported				
Source: Vendor RFI				

## Partnership

**Table 11: Implementation and Support**

Type of Partnership	Partner Vendor
System Integrators	Not disclosed
Fintech Partners	Not disclosed
Source: Vendor RFI	

## Implementation, Support, and Pricing

**Table 12: Implementation, Support, and Pricing**

Typical Implementation Team Size	4 to 8 depending on carrier size
Resource Breakdown	Vendor: 50%; Client: 50%

<b>Location of Employees</b>	US, Portugal
<b>Average Time to Implementation</b>	<u>Initial Implementation</u> : Varies by client; large scale implementations can take 1 to 2 weeks, but delivery can be established in days <u>2nd and subsequent line of business</u> : N/A <u>2nd and subsequent states/jurisdictions</u> : N/A
<b>Pricing Models</b>	Enterprise license
Source: Vendor RFI	



# CHARLEE.AI: CHARLEE.AI

## Company and Product Snapshot

**Table 13: Company Snapshot**

<b>Year Founded</b>	2016
<b>Headquarters</b>	San Francisco, Calif.
<b>Number of Employees</b>	Not disclosed
<b>Revenues (USD)</b>	Not disclosed
<b>Financial Structure</b>	Private with outside investors
<b>VendorMatch Link</b>	<a href="https://www.celent.com/vendormatch/discovery/solutions/534544283">https://www.celent.com/vendormatch/discovery/solutions/534544283</a>

Source: Vendor RFI





**Table 14: Product Snapshot**

<b>Name</b>	Charlee
<b>Year Originally Released</b>	2019
<b>Current Release and Date of Release</b>	2/2023
<b>Revenue Derived from the Product</b>	Not disclosed
<b>R&amp;D Expense</b>	R&D expense over the past two years has been 15% to 20% of total revenue attributed to this solution
<b>FTEs Providing Professional Services for Product</b>	30
<b>Notable Clients</b>	Sompo, Central Insurance, NLC

Source: Vendor RFI

## Functionality

**Table 15: Functionality**

Function	In Production	Supported But Not in Production	Not Supported
<b>Data</b>			
Aggregate historical data from different internal databases			
Integrate with external data capture tools (IoT, wearables, sensors, etc.)			
Consolidate data coming from external databases			
Data quality checking tools			

Function	In Production	Supported But Not in Production	Not Supported
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)	●		
Uses additional hardware infrastructure in the cloud to run models on large amount of data	●		
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models	●		
Rules, variables, and models repository	●		
Compare multiple scenarios / models		●	
Real time fraud scoring service	●		
Create multi-variable based algorithms	●		
Schedule model run-time	●		
Prioritize model updates and model results	●		
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification	●		
Anomaly detection	●		
Social network analysis			●
Claims severity modeling	●		
Claims frequency modeling	●		
Claims settlement optimization			●
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards	●		
Assign/share fraud cases with other investigators	●		
Check fraud case logs (status changes, audit trails, etc.)			●
<div> <div>● = Available out of the box</div> <div>● = Configurable using simple tools for business user</div> <div>● = Configurable using simple tools for IT user</div> </div> <div> <div>● = Configurable through a scripting language / coding</div> <div>● = Available with integration to a third party solution</div> <div>● = Available with integration to a separate module provided by this vendor</div> </div> <div> <div>● = Under development / on road map</div> <div>● = Could develop, would be considered customization</div> <div>● = Not available / not applicable</div> </div>			

Source: Vendor RFI

## GenAI Functionality

Table 16: GenAI Features

Elements	Availability
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Generative AI integration for fraud detection	✓
Gen AI-based analysis of unstructured data for fraud detection	✓
Integration with external data sources to enhance fraud detection	✓
Automation of claims processing workflow using generative AI	✓
Adaptive learning from new fraud patterns over time	✓
Synthetic data generation for AI training purposes	<input type="checkbox"/>
Automatic creation of communication templates or responses using generative AI	<input type="checkbox"/>
Anomaly detection in insurance claims documents and images	✓
Compliance with insurance regulations and ethical guidelines	✓
Provision of metrics to measure the effectiveness of generative AI in fraud detection	✓
Legend: ✓ = In production; <input type="checkbox"/> = Supported but not in production; ✕ = Not supported	
Source: Vendor RFI	

## Customer Base

Not provided

Source: Vendor RFI

Table 17: Implementations by Country

Region	Countries
North America	10
Europe	
Middle East	
Africa	
Asia-Pacific	
Central America	
South America	
Caribbean	2
Source: Vendor RFI	

## Technology

Table 18: Technology Options

Technology Options	Responses
Code Base	Java: 5%; JavaScript: 25%; Python: 70%

Technology Options	Responses
<b>Integration Methods</b>	Web services; XML (not through web services); RESTful HTTP style services; JSON format; Custom APIs; Flat files
<b>API Details</b>	<div> <div>✗</div> <div>The API is documented</div> </div> <div> <div>✗</div> <div>External systems can trigger an event in the system which can be responded to by a workflow or business rules system</div> </div> <div> <div>✗</div> <div>API management supports local or global standards such as ACORD application creation and rendering</div> </div> <div> <div>✗</div> <div>API sample codes are available to clients</div> </div> <div> <div>✗</div> <div>API developer portal is available for support and descriptions</div> </div> <div> <div>✗</div> <div>API testing portal and the ability to use scripts on website is available</div> </div> <div> <div>✗</div> <div>The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs</div> </div> <div> <div>✗</div> <div>API version management is available</div> </div> <div> <div>✗</div> <div>Access to the APIs is managed and use of APIs tracked by developers</div> </div> <div> <div>✗</div> <div>Training in extending the system is offered</div> </div>

Legend: ✓ = Available; ✗ = Not available

Source: Vendor RFI

**Table 19: SaaS Capabilities**

Elements	Availability
<b>Support a multi-tenant architecture</b>	✓
<b>Type of effort required to update the solution</b>	Evergreen – Client chooses when to upgrade
<b>Cadence of upgrades for multi-tenant deployments</b>	Every 3 months
<b>Deployment approach support elasticity</b>	Yes, automatically
<b>Current APIs-related strategy</b>	Enabled by consumable APIs
<b>Ability of the deployment model to leverage a serverless approach</b>	✓
<b>Ability to enable independent services (microservices)</b>	✓
<b>Proportion of the system architected as microservices</b>	25% to 50%
<b>Support automation of development and deployment processes (DevOps)</b>	✓
<b>Ability to run and deploy under containers to improve the application deployment</b>	✗
<b>Need for containerization to run in a cloud</b>	✗

Elements	Availability
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✓
<u>Legend:</u> ✓ = Yes ✗ = No	
Source: Vendor RFI	

## Artificial Intelligence Capabilities

**Table 20: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	✓
Unsupervised learning	✓
Supervised learning	✓
Feature extraction	✓
Machine vision	✓
Natural language generation (NLG)	✓
Natural language understanding (NLU)	✓
Speech recognition	✗
Speech generation	✗
Conversational capability	✓
AI workflow	✓
Predictive analytics	✓
Image recognition	□
Generative AI / LLMs	✓
<u>Legend:</u> ✓ = In production; □ = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

**Table 21: Change Tooling and Upgrades**

Types of Changes	Availability
Business Rule Definition	■
Data Definition	■
Table Maintenance, List of Values, etc.	■
Interface Definition	■
Product Definition	●
Role-Based Security, Access Control, and Authorizations	■
Screen Definition	■
Workflow Definition	■

Types of Changes	Availability
<u>Legend:</u> ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; x = Not available	
Source: Vendor RFI	

**Table 22: Public Cloud Options**

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	✓	□	□	□
Amazon AWS	✓	□	□	□
Google Cloud Platform (GCP)	✓	□	□	□
Alibaba Cloud	x	x	x	x
IBM Cloud / Bluemix	x	x	x	x
Oracle Cloud	x	x	x	x
Salesforce Cloud, Force.com, AppExchange	x	x	x	x
Other	x	x	x	x
<u>Legend:</u> ✓ = In production; □ = Supported but not in production; x = Not supported				
Source: Vendor RFI				

## Partnership

**Table 23: Implementation and Support**

Type of Partnership	Partner Vendor
System Integrators	Eclaro, Neosoft, Inspire Innovations, NLB Services, KMG
Fintech Partners	Guidewire, Duck Creek, Majesco, Sapiens, OneShield, Snapsheet, Quick Silver Systems
Source: Vendor RFI	

## Implementation, Support, and Pricing

**Table 24: Implementation, Support, and Pricing**

Typical Implementation Team Size	1 to 5
Resource Breakdown	Vendor: 70%; Insurer: 10%; Third party: 20%
Location of Employees	Charlee.AI has 8 employees in North America, 20 employees in Asia Pacific
Average Time to Implementation	<u>Initial Implementation:</u> 1 to 3 months

	<u>2nd and subsequent line of business:</u> 1 to 3 months
	<u>2nd and subsequent states/jurisdictions:</u> 1 to 3 months
<b>Pricing Models</b>	Term license, Perpetual license, Enterprise license, Subscription-based license, Other
Source: Vendor RFI	


# EIS GROUP, LTD.: INSURANCE FRAUD DETECTION AND RISK ANALYTICS SYSTEMS

## Company and Product Snapshot

Table 25: Company Snapshot	
Year Founded	2008
Headquarters	California
Number of Employees	1100
Revenues (USD)	Confidential
Financial Structure	Private with outside investors
VendorMatch Link	<a href="https://www.celent.com/vendormatch/discover/solutions/773193685">https://www.celent.com/vendormatch/discover/solutions/773193685</a>
Source: Vendor RFI	

Table 26: Product Snapshot	
Name	Insurance Fraud Detection and Risk Analytics Systems
Year Originally Released	2018
Current Release and Date of Release	V3.5/2024
Revenue Derived from the Product	As a private company, EIS does not disclose this information
R&D Expense	R&D expense over the past two years has been 26% of total revenue attributed to this solution
FTEs Providing Professional Services for Product	2
Notable Clients	Tokio Marine & Nichido Fire Co. Ltd.
Source: Vendor RFI	

## Functionality

Table 27: Functionality			
Function	In Production	Supported But Not in Production	Not Supported
Data			
Aggregate historical data from different internal databases			



Function	In Production	Supported But Not in Production	Not Supported
Integrate with external data capture tools (IoT, wearables, sensors, etc.)		●	
Consolidate data coming from external databases	●		
Data quality checking tools	●		
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)	●		
Uses additional hardware infrastructure in the cloud to run models on large amount of data	●		
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models	●		
Rules, variables, and models repository	●		
Compare multiple scenarios / models			●
Real time fraud scoring service	●		
Create multi-variable based algorithms	●		
Schedule model run-time	●		
Prioritize model updates and model results	●		
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification	●		
Anomaly detection	●		
Social network analysis			●
Claims severity modeling		●	
Claims frequency modeling	●		
Claims settlement optimization			●
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards	●		
Assign/share fraud cases with other investigators	●		
Check fraud case logs (status changes, audit trails, etc.)	●		
<div> <div>● = Available out of the box</div> <div>● = Configurable using simple tools for business user</div> <div>● = Configurable using simple tools for IT user</div> </div> <div> <div>● = Configurable through a scripting language / coding</div> <div>● = Available with integration to a third party solution</div> <div>● = Available with integration to a separate module provided by this vendor</div> </div> <div> <div>● = Under development / on road map</div> <div>● = Could develop, would be considered customization</div> <div>● = Not available / not applicable</div> </div>			
Source: Vendor RFI			

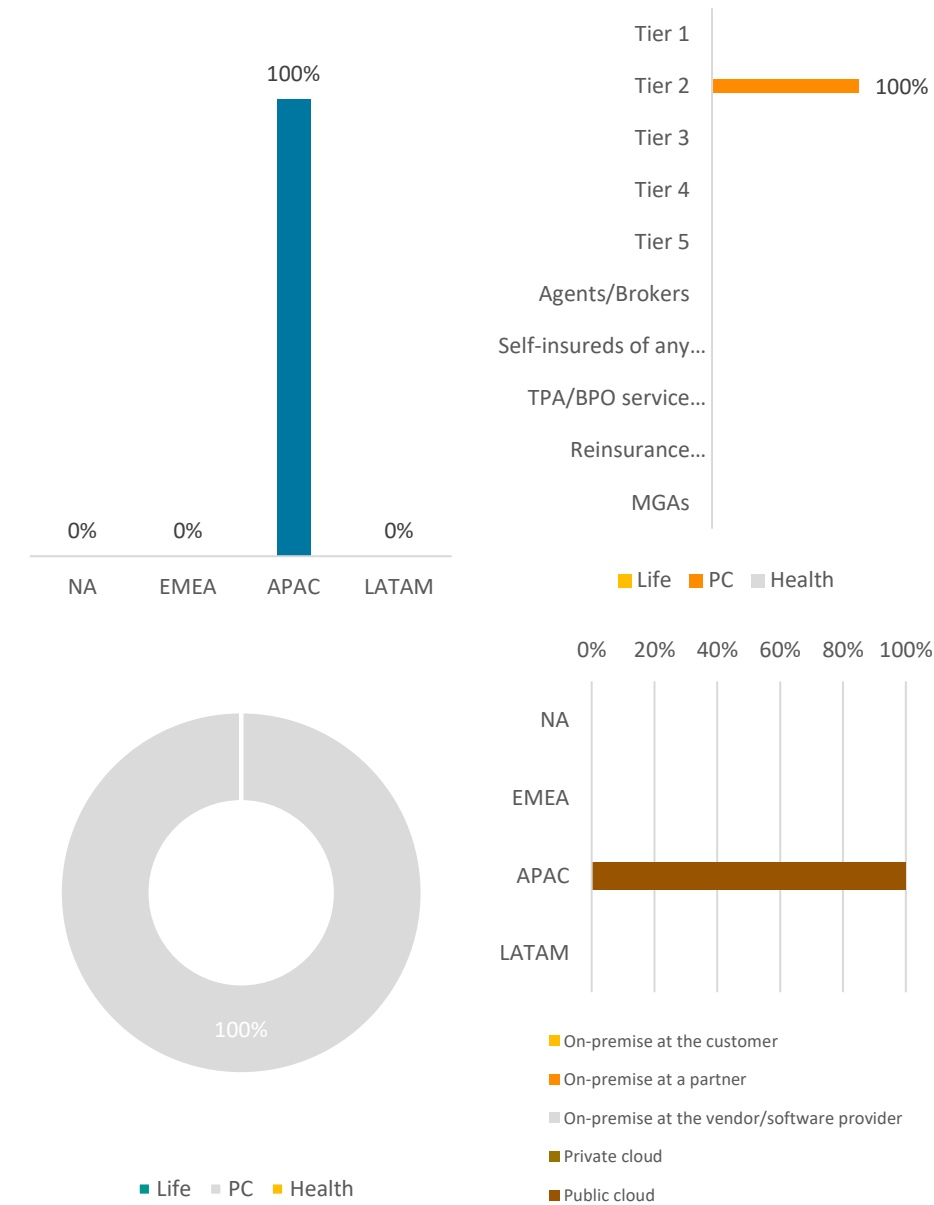
## GenAI Functionality

**Table 28: GenAI Features**

Elements	Availability
Generative AI integration for fraud detection	<input type="checkbox"/>
Gen AI-based analysis of unstructured data for fraud detection	<input type="checkbox"/>
Integration with external data sources to enhance fraud detection	✓
Automation of claims processing workflow using generative AI	✗
Adaptive learning from new fraud patterns over time	<input type="checkbox"/>
Synthetic data generation for AI training purposes	✗
Automatic creation of communication templates or responses using generative AI	<input type="checkbox"/>
Anomaly detection in insurance claims documents and images	<input type="checkbox"/>
Compliance with insurance regulations and ethical guidelines	<input type="checkbox"/>
Provision of metrics to measure the effectiveness of generative AI in fraud detection	<input type="checkbox"/>
<u>Legend:</u> ✓ = In production; <input type="checkbox"/> = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

## Customer Base

**Figure 1: Client Base by Geography, Size, Line of Business, and Deployment Type (Global)**



Source: Vendor RFI

**Table 29: Implementations by Country**

Region	Countries
North America	

<b>Europe</b>
<b>Middle East</b>
<b>Africa</b>
<b>Asia-Pacific</b> Japan
<b>Central America</b>
<b>South America</b>
<b>Caribbean</b>
Source: Vendor RFI

## Technology

**Table 30: Technology Options**

Technology Options	Responses
<b>Code Base</b>	JavaScript: 80%; Other: 20%
<b>Integration Methods</b>	RESTful HTTP style services; Flat files; GraphQL
<b>API Details</b>	✓ The API is documented
	✓ External systems can trigger an event in the system which can be responded to by a workflow or business rules system
	✗ API management supports local or global standards such as ACORD application creation and rendering
	✓ API sample codes are available to clients
	✗ API developer portal is available for support and descriptions
	✗ API testing portal and the ability to use scripts on website is available
	✓ The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs
	✗ API version management is available
	✓ Access to the APIs is managed and use of APIs tracked by developers
	□ ✓ Training in extending the system is offered

Legend: ✓ = Available; □ = Not available

Source: Vendor RFI

**Table 31: SaaS Capabilities**

Elements	Availability
<b>Support a multi-tenant architecture</b>	✗
<b>Type of effort required to update the solution</b>	Evergreen – Client chooses when to upgrade

Elements	Availability
Cadence of upgrades for multi-tenant deployments	n/a
Deployment approach support elasticity	Yes, automatically
Current APIs-related strategy	Enabled by consumable APIs
Ability of the deployment model to leverage a serverless approach	✗
Ability to enable independent services (microservices)	✓
Proportion of the system architected as microservices	50% to 80%
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	✓
Need for containerization to run in a cloud	✓
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✗
<u>Legend:</u> ✓ = Yes ✗ = No	
Source: Vendor RFI	

## Artificial Intelligence Capabilities

**Table 32: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	✓
Unsupervised learning	✗
Supervised learning	✓
Feature extraction	✓
Machine vision	✓
Image recognition	✓
Generative AI / LLMs	✓
<u>Legend:</u> ✓ = In production; □ = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

**Table 33: Change Tooling and Upgrades**

Types of Changes	Availability
Business Rule Definition	✓
Data Definition	✓
Table Maintenance, List of Values, etc.	✓

Types of Changes	Availability
Interface Definition	■
Product Definition	■
Role-Based Security, Access Control, and Authorizations	✓
Screen Definition	■
Workflow Definition	✓
Legend: ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; x = Not available	
Source: Vendor RFI	

**Table 34: Public Cloud Options**

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	□	□	□	□
Amazon AWS	□	□	✓	□
Google Cloud Platform (GCP)	□	□	□	□
Alibaba Cloud	x	x	x	x
IBM Cloud / Bluemix	x	x	x	x
Oracle Cloud	x	x	x	x
Salesforce Cloud, Force.com, AppExchange	x	x	x	x
Other	x	x	x	x
Legend: ✓ = In production; □ = Supported but not in production; x = Not supported				
Source: Vendor RFI				

## Partnership

**Table 35: Implementation and Support**

Type of Partnership	Partner Vendor
System Integrators	EIS has several partnerships with third party system integrators such as EY and PwC, but they have not been engaged in any implementations at this time
Fintech Partners	Not disclosed
Source: Vendor RFI	

## Implementation, Support, and Pricing

**Table 36: Implementation, Support, and Pricing**

<b>Typical Implementation Team Size</b>	1 to 5
<b>Resource Breakdown</b>	Vendor: 90%; Client: 10%
<b>Location of Employees</b>	EIS Group, Ltd. has 4 employees in North America, 1 employee in Asia Pacific
<b>Average Time to Implementation</b>	<u>Initial Implementation</u> : 4 to 6 months <u>2nd and subsequent line of business</u> : 1 to 3 months <u>2nd and subsequent states/jurisdictions</u> : 1 to 3 months
<b>Pricing Models</b>	Term license, Perpetual license, Enterprise license, Subscription-based license, Other
Source: Vendor RFI	

# FRISS: FRISS CLAIMS ANALYTICS

## Company and Product Snapshot

<b>Table 37: Company Snapshot</b>	
Year Founded	2006
Headquarters	Utrecht, Netherlands
Number of Employees	Confidential
Revenues (USD)	Confidential
Financial Structure	Private with outside investors
VendorMatch Link	<a href="https://www.celent.com/vendormatch/discover/solutions/929827122">https://www.celent.com/vendormatch/discover/solutions/929827122</a>

Source: Vendor RFI























<b>Table 38: Product Snapshot</b>	
Name	FRISS Claims Analytics
Year Originally Released	2008
Current Release and Date of Release	Agile release schedule/2024
Revenue Derived from the Product	Confidential
R&D Expense	R&D expense over the past two years has been 30% of total revenue attributed to this solution
FTEs Providing Professional Services for Product	61
Notable Clients	Confidential

Source: Vendor RFI



## Functionality

**Table 39: Functionality**

Function	In Production	Supported But Not in Production	Not Supported
<b>Data</b>			
Aggregate historical data from different internal databases			
Integrate with external data capture tools (IoT, wearables, sensors, etc.)			
Consolidate data coming from external databases			
Data quality checking tools			
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)			
Uses additional hardware infrastructure in the cloud to run models on large amount of data			
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models			
Rules, variables, and models repository			
Compare multiple scenarios / models			
Real time fraud scoring service			
Create multi-variable based algorithms			
Schedule model run-time			
Prioritize model updates and model results			
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification			
Anomaly detection			
Social network analysis			
Claims severity modeling			
Claims frequency modeling			
Claims settlement optimization			
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards			
Assign/share fraud cases with other investigators			
Check fraud case logs (status changes, audit trails, etc.)			

- = Available out of the box
- = Configurable through a scripting language / coding
- = Under development / on road map
- = Configurable using simple tools for business user
- = Available with integration to a third-party solution
- = Could develop, would be considered customization
- = Configurable using simple tools for IT user
- = Available with integration to a separate module provided by this vendor
- = Not available / not applicable

Source: Vendor RFI

## GenAI Functionality

**Table 40: GenAI Features**

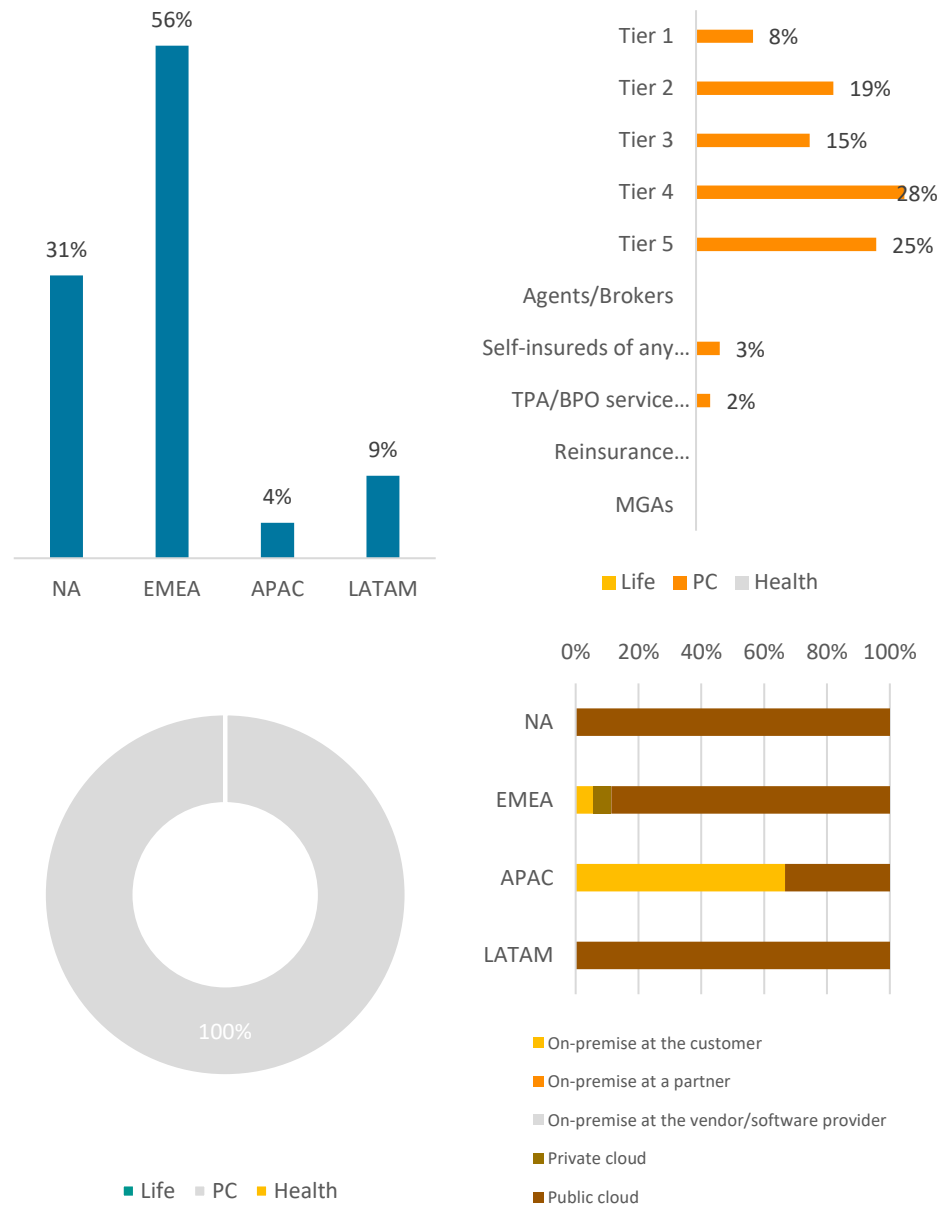
Elements	Availability
Generative AI integration for fraud detection	✓
Gen AI-based analysis of unstructured data for fraud detection	✓
Integration with external data sources to enhance fraud detection	✓
Automation of claims processing workflow using generative AI	□
Adaptive learning from new fraud patterns over time	✓
Synthetic data generation for AI training purposes	✗
Automatic creation of communication templates or responses using generative AI	□
Anomaly detection in insurance claims documents and images	✓
Compliance with insurance regulations and ethical guidelines	✓
Provision of metrics to measure the effectiveness of generative AI in fraud detection	□

Legend: ✓ = In production; □ = Supported but not in production; ✗ = Not supported

Source: Vendor RFI

## Customer Base

**Figure 2: Client Base by Geography, Size, Line of Business, and Deployment Type (Global)**



Source: Vendor RFI

**Table 41: Implementations by Country**

Region	Countries
North America	Canada, United States

<b>Europe</b>	Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, France, Germany, Greece, Hungary, Ireland, Kosovo, Lithuania, Macedonia, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom
<b>Middle East</b>	Saudi Arabia
<b>Africa</b>	
<b>Asia-Pacific</b>	Australia, New Zealand
<b>Central America</b>	Costa Rica, Guatemala, Mexico
<b>South America</b>	Argentina, Brazil, Colombia, Ecuador, Peru, Uruguay
<b>Caribbean</b>	Curacao

Source: Vendor RFI

## Technology

**Table 42: Technology Options**

Technology Options	Responses
<b>Code Base</b>	.Net: 50%; JavaScript: 20%; PL/SQL: 10%; Python: 20%
<b>Integration Methods</b>	Web services; XML (not through web services); RESTful HTTP style services; JSON format; Custom APIs; Flat files
<b>API Details</b>	<div>✓ The API is documented</div> <div>✗ External systems can trigger an event in the system which can be responded to by a workflow or business rules system</div> <div>✗ API management supports local or global standards such as ACORD application creation and rendering</div> <div>✓ API sample codes are available to clients</div> <div>✓ API developer portal is available for support and descriptions</div> <div>✗ API testing portal and the ability to use scripts on website is available</div> <div>✗ The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs</div> <div>✓ API version management is available</div> <div>✓ Access to the APIs is managed and use of APIs tracked by developers</div> <div>✗ Training in extending the system is offered</div>

**Legend:** ✓ = Available; ✗ = Not available

Source: Vendor RFI

**Table 43: SaaS Capabilities**

Elements	Availability
Support a multi-tenant architecture	✓
Type of effort required to update the solution	Evergreen – all clients are on the same latest version. Except on-premises clients.
Cadence of upgrades for multi-tenant deployments	More frequent than every 3 months
Deployment approach support elasticity	Yes, automatically
Current APIs-related strategy	Enabled by consumable APIs
Ability of the deployment model to leverage a serverless approach	✓
Ability to enable independent services (microservices)	✓
Proportion of the system architected as microservices	Over 80%
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	✓
Need for containerization to run in a cloud	✗
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✗
<u>Legend:</u> ✓ = Yes ✗ = No	
Source: Vendor RFI	

## Artificial Intelligence Capabilities

**Table 44: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	□
Unsupervised learning	✓
Supervised learning	✓
Feature extraction	✓
Machine vision	□
Image recognition	✓
Generative AI / LLMs	✓
<u>Legend:</u> ✓ = In production; □ = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

**Table 45: Change Tooling and Upgrades**

Types of Changes	Availability
Business Rule Definition	✓
Data Definition	⊖
Table Maintenance, List of Values, etc.	⊖
Interface Definition	⊖
Product Definition	⊖
Role-Based Security, Access Control, and Authorizations	□
Screen Definition	●
Workflow Definition	⊖
<b>Legend:</b> ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; x = Not available	
Source: Vendor RFI	

**Table 46: Public Cloud Options**

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	✓	✓	□	□
Amazon AWS	x	x	x	x
Google Cloud Platform (GCP)	x	x	x	x
Alibaba Cloud	x	x	x	x
IBM Cloud / Bluemix	x	x	x	x
Oracle Cloud	x	x	x	x
Salesforce Cloud, Force.com, AppExchange	x	x	x	x
Other	x	x	x	x
<b>Legend:</b> ✓ = In production; □ = Supported but not in production; x = Not supported				
Source: Vendor RFI				

## Partnership

**Table 47: Implementation and Support**

Type of Partnership	Partner Vendor
System Integrators	EY, Deloitte, GFT, and Zenzar
Fintech Partners	Friss has a global partnership established with Munich Re, as well as partnerships with data suppliers like Dun & Bradstreet and Info4C; consultancy firms including EY, KPMG, and Deloitte; and service providers like Omnius, Eviid, Mohawk, Web-IQ, and

Type of Partnership	Partner Vendor
	Legentic. Additionally, Friss has partnerships with core solution vendors such as Guidewire, Duck Creek, Keylane, MSG, IBA, Regnum RGI, and others.
Source: Vendor RFI	

## Implementation, Support, and Pricing

Table 48: Implementation, Support, and Pricing

Typical Implementation Team Size	Around 4 to 6
Resource Breakdown	Vendor: 50%; Client: 50%
Location of Employees	North America, EMEA, Asia Pacific, Latin America
Average Time to Implementation	<u>Implementation</u> : 4 to 6 months
Pricing Models	Subscription-based license
Source: Vendor RFI	

# HUGIN: BAYES FRAUD

## Company and Product Snapshot

Table 49: Company Snapshot

Year Founded	1989
Headquarters	Aalborg, Denmark
Number of Employees	6
Revenues (USD)	Not disclosed
Financial Structure	Private with outside investors
VendorMatch Link	<a href="https://www.celent.com/vendormatch/discovery/solutions/831166913">https://www.celent.com/vendormatch/discovery/solutions/831166913</a>

Source: Vendor RFI





Table 50: Product Snapshot

Name	Bayes Fraud
Year Originally Released	2006
Current Release and Date of Release	9.5/2023
Revenue Derived from the Product	More than \$100,000
R&D Expense	R&D expense over the past two years has been 25% of total revenue attributed to this solution
FTEs Providing Professional Services for Product	2
Notable Clients	Not disclosed

Source: Vendor RFI

## Functionality

Table 51: Functionality

Function	In Production	Supported But Not in Production	Not Supported
Data			
Aggregate historical data from different internal databases			
Integrate with external data capture tools (IoT, wearables, sensors, etc.)			
Consolidate data coming from external databases			
Data quality checking tools			



Function	In Production	Supported But Not in Production	Not Supported
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)		●	
Uses additional hardware infrastructure in the cloud to run models on large amount of data		●	
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models	●		
Rules, variables, and models repository		●	
Compare multiple scenarios / models	●		
Real time fraud scoring service	●		
Create multi-variable based algorithms	●		
Schedule model run-time	●		
Prioritize model updates and model results		●	
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification	●		
Anomaly detection		●	
Social network analysis			●
Claims severity modeling		●	
Claims frequency modeling		●	
Claims settlement optimization		●	
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards		●	
Assign/share fraud cases with other investigators		●	
Check fraud case logs (status changes, audit trails, etc.)		●	
<div> <span>●</span> = Available out of the box           <span>●</span> = Configurable through a scripting language / coding           <span>●</span> = Under development / on road map         </div> <div> <span>●</span> = Configurable using simple tools for business user           <span>●</span> = Available with integration to a third party solution           <span>●</span> = Could develop, would be considered customization         </div> <div> <span>●</span> = Configurable using simple tools for IT user           <span>●</span> = Available with integration to a separate module provided by this vendor           <span>●</span> = Not available / not applicable         </div>			

Source: Vendor RFI

## GenAI Functionality

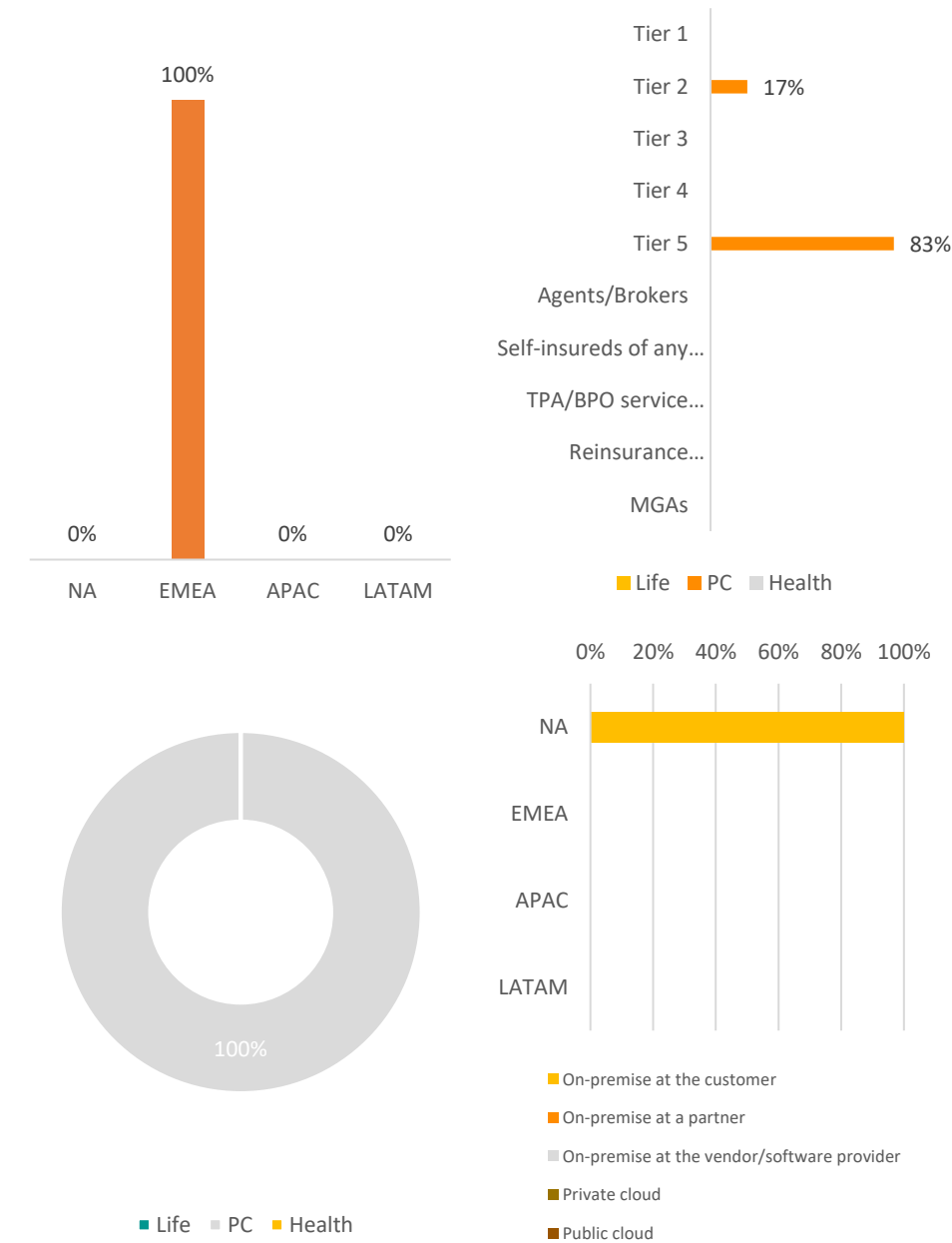
Table 52: GenAI Features

Elements	Availability
Generative AI integration for fraud detection	x

<b>Gen AI-based analysis of unstructured data for fraud detection</b>	×
<b>Integration with external data sources to enhance fraud detection</b>	□
<b>Automation of claims processing workflow using generative AI</b>	✖
<b>Adaptive learning from new fraud patterns over time</b>	□
<b>Synthetic data generation for AI training purposes</b>	□
<b>Automatic creation of communication templates or responses using generative AI</b>	✖
<b>Anomaly detection in insurance claims documents and images</b>	□
<b>Compliance with insurance regulations and ethical guidelines</b>	✖
<b>Provision of metrics to measure the effectiveness of generative AI in fraud detection</b>	✖
<b>Legend:</b> ✓ = In production; □ = Supported but not in production; × = Not supported	
Source: Vendor RFI	

## Customer Base

**Figure 3: Client Base by Geography, Size, Line of Business, and Deployment Type (Global)**



Source: Vendor RFI

**Table 53: Implementations by Country**

Region	Countries
--------	-----------

<b>North America</b>
<b>Europe</b> Denmark, Norway
<b>Middle East</b>
<b>Africa</b>
<b>Asia-Pacific</b>
<b>Central America</b>
<b>South America</b>
<b>Caribbean</b>
Source: Vendor RFI

## Technology

**Table 54: Technology Options**

Technology Options	Responses
<b>Code Base</b>	.Net: 10%; C: 30%; C++: 10%; Java: 30%; JavaScript: 10%; Python: 10%
<b>Integration Methods</b>	Web services; RESTful HTTP style services; Custom APIs; Flat files
<b>API Details</b>	✓ The API is documented
	✗ External systems can trigger an event in the system which can be responded to by a workflow or business rules system
	✗ API management supports local or global standards such as ACORD application creation and rendering
	✓ API sample codes are available to clients
	✓ API developer portal is available for support and descriptions
	✗ API testing portal and the ability to use scripts on website is available
	✗ The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs
	✗ API version management is available
	✗ Access to the APIs is managed and use of APIs tracked by developers
	☐ ✓ Training in extending the system is offered
<b>Legend:</b> ✓ = Available; ☐ = Not available	
Source: Vendor RFI	

**Table 55: SaaS Capabilities**

Elements	Availability
Support a multi-tenant architecture	✗
Type of effort required to update the solution	Evergreen – All clients are on the same latest version
Cadence of upgrades for multi-tenant deployments	Every 12 months
Deployment approach support elasticity	Yes, within months
Current APIs-related strategy	Not disclosed
Ability of the deployment model to leverage a serverless approach	Not disclosed
Ability to enable independent services (microservices)	Not disclosed
Proportion of the system architected as microservices	Not disclosed
Support automation of development and deployment processes (DevOps)	Not disclosed
Ability to run and deploy under containers to improve the application deployment	Not disclosed
Need for containerization to run in a cloud	Not disclosed
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	Not disclosed

Legend: ✓ = Yes ✗ = No

Source: Vendor RFI

## Artificial Intelligence Capabilities

**Table 56: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	✗
Unsupervised learning	✓
Supervised learning	✓
Feature extraction	✓
Machine vision	<input type="checkbox"/>
Natural language generation (NLG)	<input type="checkbox"/>
Natural language understanding (NLU)	<input type="checkbox"/>
Speech recognition	✗
Speech generation	✗
Conversational capability	✗
AI workflow	<input type="checkbox"/>

<b>Predictive analytics</b>	✓
<b>Image recognition</b>	□
<b>Generative AI / LLMs</b>	✗

Legend: ✓ = In production; □ = Supported but not in production; ✗ = Not supported

Source: Vendor RFI

**Table 57: Change Tooling and Upgrades**

Types of Changes	Availability
<b>Business Rule Definition</b>	●
<b>Data Definition</b>	●
<b>Table Maintenance, List of Values, etc.</b>	●
<b>Interface Definition</b>	●
<b>Product Definition</b>	●
<b>Role-Based Security, Access Control, and Authorizations</b>	●
<b>Screen Definition</b>	●
<b>Workflow Definition</b>	●

Legend: ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; ✗ = Not available

Source: Vendor RFI

**Table 58: Public Cloud Options**

Providers	NA	EMEA	APAC	LATAM
<b>Microsoft Azure</b>	✗	✗	✗	✗
<b>Amazon AWS</b>	✗	✗	✗	✗
<b>Google Cloud Platform (GCP)</b>	✗	✗	✗	✗
<b>Alibaba Cloud</b>	✗	✗	✗	✗
<b>IBM Cloud / Bluemix</b>	✗	✗	✗	✗
<b>Oracle Cloud</b>	✗	✗	✗	✗
<b>Salesforce Cloud, Force.com, AppExchange</b>	✗	✗	✗	✗
<b>Other</b>	✗	✗	✗	✗

Legend: ✓ = In production; □ = Supported but not in production; ✗ = Not supported

Source: Vendor RFI

## Partnership

**Table 59: Implementation and Support**

Type of Partnership	Partner Vendor
<b>System Integrators</b>	None

Type of Partnership	Partner Vendor
Fintech Partners	None
Source: Vendor RFI	

## Implementation, Support, and Pricing

Table 60: Implementation, Support, and Pricing

Typical Implementation Team Size	1 to 5
Resource Breakdown	Vendor: 10%; Client: 90%
Location of Employees	Hugin has 5 employees in EMEA
Average Time to Implementation	<u>Initial Implementation</u> : 7 to 12 months <u>2nd and subsequent line of business</u> : 7 to 12 months <u>2nd and subsequent states/jurisdictions</u> : 7 to 12 months
Pricing Models	Term license, Enterprise license, Subscription-based license, Other
Source: Vendor RFI	

# KUBE PARTNERS: DETECTOR

## Company and Product Snapshot





Table 61: Company Snapshot	
Year Founded	2010
Headquarters	Italy
Number of Employees	20
Revenues (USD)	1.6M
Financial Structure	Private
VendorMatch Link	<a href="https://www.celent.com/vendormatch/discover/solutions/188742760">https://www.celent.com/vendormatch/discover/solutions/188742760</a>

Source: Vendor RFI

Table 62: Product Snapshot	
Name	Detector
Year Originally Released	2016
Current Release and Date of Release	3/2024
Revenue Derived from the Product	\$880,000
R&D Expense	R&D expense over the past two years has been 50%% of total revenue attributed to this solution
FTEs Providing Professional Services for Product	6
Notable Clients	

Source: Vendor RFI

## Functionality

Table 63: Functionality			
Function	In Production	Supported But Not in Production	Not Supported
Data			
Aggregate historical data from different internal databases			
Integrate with external data capture tools (IoT, wearables, sensors, etc.)			
Consolidate data coming from external databases			
Data quality checking tools			



Function	In Production	Supported But Not in Production	Not Supported
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)			●
Uses additional hardware infrastructure in the cloud to run models on large amount of data	●		
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models	●		
Rules, variables, and models repository	●		
Compare multiple scenarios / models	●		
Real time fraud scoring service	●		
Create multi-variable based algorithms	●		
Schedule model run-time	●		
Prioritize model updates and model results	●		
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification	●		
Anomaly detection		●	
Social network analysis	●		
Claims severity modeling	●		
Claims frequency modeling	●		
Claims settlement optimization	●		
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards	●		
Assign/share fraud cases with other investigators	●		
Check fraud case logs (status changes, audit trails, etc.)	●		
<div> <div>● = Available out of the box</div> <div>● = Configurable using simple tools for business user</div> <div>● = Configurable using simple tools for IT user</div> </div> <div> <div>● = Configurable through a scripting language / coding</div> <div>● = Available with integration to a third party solution</div> <div>● = Available with integration to a separate module provided by this vendor</div> </div> <div> <div>● = Under development / on road map</div> <div>● = Could develop, would be considered customization</div> <div>● = Not available / not applicable</div> </div>			

Source: Vendor RFI

## GenAI Functionality

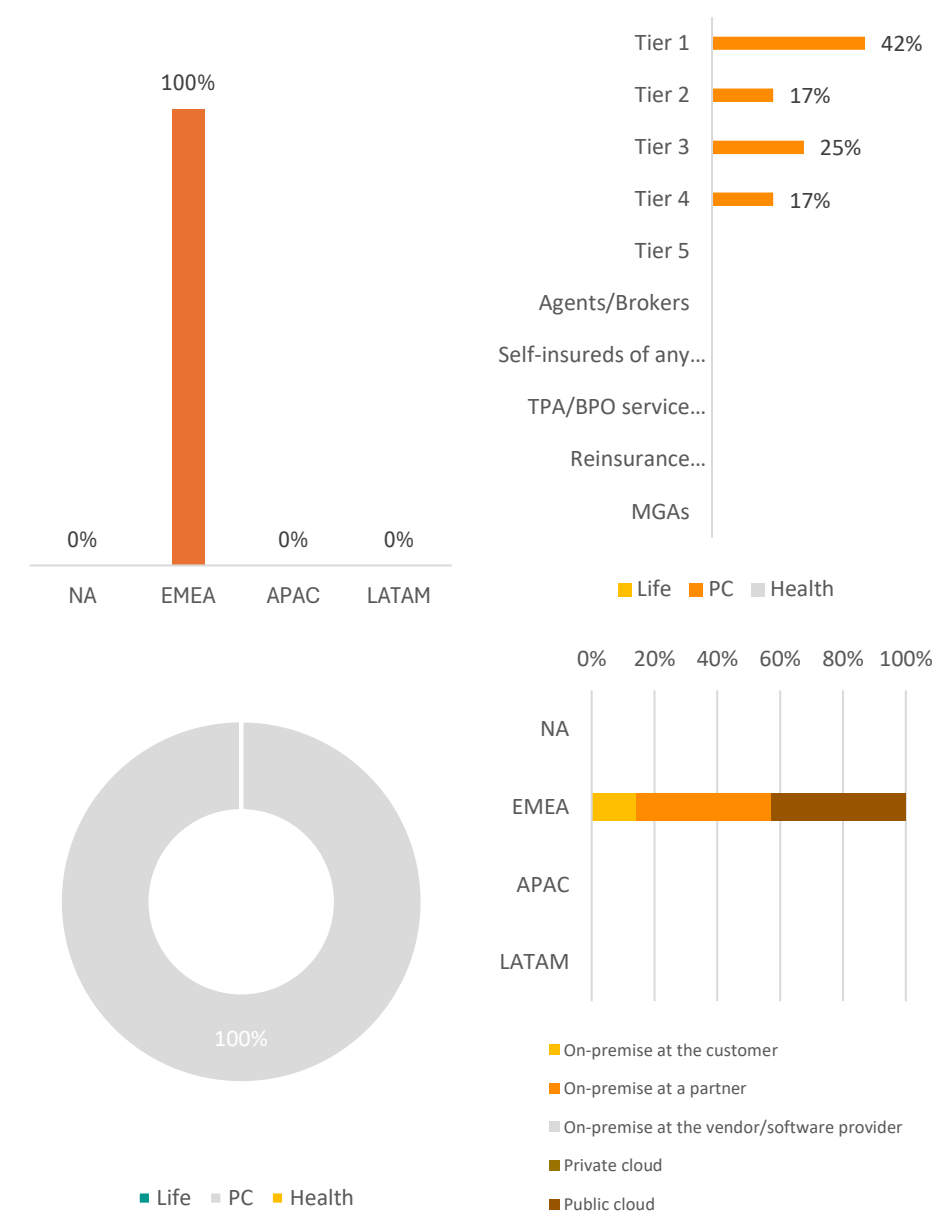
Table 64: GenAI Features

Elements	Availability
Generative AI integration for fraud detection	<input type="checkbox"/>

Elements	Availability
Gen AI-based analysis of unstructured data for fraud detection	✗
Integration with external data sources to enhance fraud detection	☐
Automation of claims processing workflow using generative AI	✗
Adaptive learning from new fraud patterns over time	✗
Synthetic data generation for AI training purposes	☐
Automatic creation of communication templates or responses using generative AI	✓
Anomaly detection in insurance claims documents and images	✗
Compliance with insurance regulations and ethical guidelines	✓
Provision of metrics to measure the effectiveness of generative AI in fraud detection	☐
<u>Legend:</u> ✓ = In production; ☐ = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

## Customer Base

**Figure 4: Client Base by Geography, Size, Line of Business, and Deployment Type (Global)**



Source: Vendor RFI

**Table 65: Implementations by Country**

Region	Countries
North America	

Region	Countries
Europe	Italy, Poland
Middle East	
Africa	
Asia-Pacific	
Central America	
South America	
Caribbean	
Source: Vendor RFI	

## Technology

**Table 66: Technology Options**

Technology Options	Responses	
Code Base	Java: 75%; Python: 10%; JavaScript 10%; PL/SQL 5%	
Integration Methods	Web services; RESTful HTTP style services; JSON format	
API Details	✓	The API is documented
	✗	External systems can trigger an event in the system which can be responded to by a workflow or business rules system
	✗	API management supports local or global standards such as ACORD application creation and rendering
	✗	API sample codes are available to clients
	✗	API developer portal is available for support and descriptions
	✗	API testing portal and the ability to use scripts on website is available
	✓	The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs
	✓	API version management is available
	✗	Access to the APIs is managed and use of APIs tracked by developers
	✗	Training in extending the system is offered
<b>Legend:</b> ✓ = Available; ✗ = Not available		
Source: Vendor RFI		

**Table 67: SaaS Capabilities**

Elements	Availability
Support a multi-tenant architecture	✗
Type of effort required to update the solution	Project-based – Manual upgrade
Cadence of upgrades for multi-tenant deployments	✗
Deployment approach support elasticity	Yes, within less than a day
Current APIs-related strategy	Pre-connected cloud environment (fully connected and ready to use)
Ability of the deployment model to leverage a serverless approach	✗
Ability to enable independent services (microservices)	✓
Proportion of the system architected as microservices	25% to 50%
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	✗
Need for containerization to run in a cloud	✗
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✓
<u>Legend:</u> ✓ = Yes ✗ = No	
Source: Vendor RFI	

## Artificial Intelligence Capabilities

**Table 68: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	✓
Unsupervised learning	✓
Supervised learning	✓
Feature extraction	✓
Machine vision	✗
Image recognition	✓
Generative AI / LLMs	✓
<u>Legend:</u> ✓ = In production; □ = Supported but not in production; ✗ = Not supported	

Source: Vendor RFI

**Table 69: Change Tooling and Upgrades**

Types of Changes	Availability
Business Rule Definition	■
Data Definition	■
Table Maintenance, List of Values, etc.	■
Interface Definition	■
Product Definition	■
Role-Based Security, Access Control, and Authorizations	■
Screen Definition	●
Workflow Definition	●

Legend: ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; x = Not available

Source: Vendor RFI

**Table 70: Public Cloud Options**

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	x	x	x	x
Amazon AWS	x	✓	x	x
Google Cloud Platform (GCP)	x	x	x	x
Alibaba Cloud	x	x	x	x
IBM Cloud / Bluemix	x	x	x	x
Oracle Cloud	x	x	x	x
Salesforce Cloud, Force.com, AppExchange	x	x	x	x
Other	x	x	x	x

Legend: ✓ = In production; □ = Supported but not in production; x = Not supported

Source: Vendor RFI

## Partnership

**Table 71: Implementation and Support**

Type of Partnership	Partner Vendor
System Integrators	None
Fintech Partners	None

Source: Vendor RFI

## Implementation, Support, and Pricing

Table 72: Implementation, Support, and Pricing	
Typical Implementation Team Size	1 to 5
Resource Breakdown	<u>EMEA</u> : Vendor: 70%; Client: 30%
Location of Employees	Kube Partners has 10 employees in EMEA
Average Time to Implementation	<u>Initial Implementation</u> : 4 to 6 months
	<u>2nd and subsequent line of business</u> : 1 to 3 months
	<u>2nd and subsequent states/jurisdictions</u> : 1 to 3 months
Pricing Models	Subscription-based license, Other
Source: Vendor RFI	





# QUANTEXA: FRAUD DETECTION

## Company and Product Snapshot

Table 73: Company Snapshot	
Year Founded	2016
Headquarters	London
Number of Employees	745
Revenues (USD)	\$72 million
Financial Structure	Private with outside investors
VendorMatch Link	<a href="https://www.celent.com/vendormatch/discovery/solutions/397427832">https://www.celent.com/vendormatch/discovery/solutions/397427832</a>
Source: Vendor RFI	

Table 74: Product Snapshot	
Name	Fraud Detection
Year Originally Released	2016
Current Release and Date of Release	2.6/2024
Revenue Derived from the Product	Not disclosed
R&D Expense	\$155 million over three years
FTEs Providing Professional Services for Product	250
Notable Clients	Chubb, Allianz, Prudential, Aon, and Zurich
Source: Vendor RFI	

## Functionality

Table 75: Functionality			
Function	In Production	Supported But Not in Production	Not Supported
Data			
Aggregate historical data from different internal databases			
Integrate with external data capture tools (IoT, wearables, sensors, etc.)			
Consolidate data coming from external databases			
Data quality checking tools			



Function	In Production	Supported But Not in Production	Not Supported
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)	●		
Uses additional hardware infrastructure in the cloud to run models on large amount of data	●		
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models	●		
Rules, variables, and models repository	●		
Compare multiple scenarios / models	●		
Real time fraud scoring service	●		
Create multi-variable based algorithms	●		
Schedule model run-time	●		
Prioritize model updates and model results	●		
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification	●		
Anomaly detection	●		
Social network analysis	●		
Claims severity modeling	●		
Claims frequency modeling	●		
Claims settlement optimization	●		
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards	●		
Assign/share fraud cases with other investigators	●		
Check fraud case logs (status changes, audit trails, etc.)	●		
<div> <div>● = Available out of the box</div> <div>● = Configurable through a scripting language / coding</div> <div>● = Under development / on roadmap</div> </div> <div> <div>● = Configurable using simple tools for business user</div> <div>● = Available with integration to a third party solution</div> <div>● = Could develop, would be considered customization</div> </div> <div> <div>● = Configurable using simple tools for IT user</div> <div>● = Available with integration to a separate module provided by this vendor</div> <div>● = Not available / not applicable</div> </div>			

Source: Vendor RFI

## GenAI Functionality

**Table 76: GenAI Features**

Elements	Availability
Generative AI integration for fraud detection	<input type="checkbox"/>

Gen AI-based analysis of unstructured data for fraud detection	✓
Integration with external data sources to enhance fraud detection	✓
Automation of claims processing workflow using generative AI	<input type="checkbox"/>
Adaptive learning from new fraud patterns over time	<input type="checkbox"/>
Synthetic data generation for AI training purposes	✓
Automatic creation of communication templates or responses using generative AI	<input type="checkbox"/>
Anomaly detection in insurance claims documents and images	✗
Compliance with insurance regulations and ethical guidelines	<input type="checkbox"/>
Provision of metrics to measure the effectiveness of generative AI in fraud detection	<input type="checkbox"/>
<b>Legend:</b> ✓ = In production; <input type="checkbox"/> = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

## Customer Base

Not provided

Source: Vendor RFI

**Table 77: Implementations by Country**

Region	Countries
North America	3
Europe	17
Middle East	6
Africa	4
Asia-Pacific	18
Central America	1
South America	3
Caribbean	0
Source: Vendor RFI	

## Technology

**Table 78: Technology Options**

Technology Options	Responses
Code Base	JavaScript: 5%; Python: 5%; Other: 90%
Integration Methods	Web services; HTTP; RESTful HTTP style services; JSON format; MQSeries/JMS/Similar queue technology; Custom APIs; Flat files; Other

Technology Options	Responses
API Details	✓ The API is documented
	✓ External systems can trigger an event in the system which can be responded to by a workflow or business rules system
	✗ API management supports local or global standards such as ACORD application creation and rendering
	✓ API sample codes are available to clients
	✗ API developer portal is available for support and descriptions
	✗ API testing portal and the ability to use scripts on website is available
	✓ The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs
	✗ API version management is available
	✓ Access to the APIs is managed and use of APIs tracked by developers
	✓ Training in extending the system is offered

Legend: ✓ = Available; ✗ = Not available

Source: Vendor RFI

**Table 79: SaaS Capabilities**

Elements	Availability
Support a multi-tenant architecture	✓
Type of effort required to update the solution	Evergreen – Client chooses when to upgrade
Cadence of upgrades for multi-tenant deployments	Every 6 months
Deployment approach support elasticity	Yes, within less than a day
Current APIs-related strategy	Enabled by consumable APIs
Ability of the deployment model to leverage a serverless approach	✗
Ability to enable independent services (microservices)	✓
Proportion of the system architected as microservices	Over 80%
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	✓
Need for containerization to run in a cloud	✗
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✓

Legend: ✓ = Yes ✗ = No

Source: Vendor RFI

## Artificial Intelligence Capabilities

**Table 80: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	✓
Unsupervised learning	✓
Supervised learning	✓
Feature extraction	✓
Machine vision	✗
Natural language generation (NLG)	□
Natural language understanding (NLU)	✓
Speech recognition	✗
Speech generation	✗
Conversational capability	□
AI workflow	✓
Predictive analytics	✓
Image recognition	✗
Generative AI / LLMs	✓

Legend: ✓ = In production; □ = Supported but not in production; ✗ = Not supported

Source: Vendor RFI

**Table 81: Change Tooling and Upgrades**

Types of Changes	Availability
Business Rule Definition	●
Data Definition	■
Table Maintenance, List of Values, etc.	●
Interface Definition	■
Product Definition	●
Role-Based Security, Access Control, and Authorizations	□
Screen Definition	●
Workflow Definition	●

Legend: ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; ✗ = Not available

Source: Vendor RFI

**Table 82: Public Cloud Options**

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	<input type="checkbox"/>	✓	✓	<input type="checkbox"/>
Amazon AWS	✓	✓	✓	<input type="checkbox"/>
Google Cloud Platform (GCP)	✓	✓	✓	<input type="checkbox"/>
Alibaba Cloud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IBM Cloud / Bluemix	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oracle Cloud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salesforce Cloud, Force.com, AppExchange	✗	✗	✗	✗
Other	✗	✗	✗	✗

Legend: ✓ = In production; ☐ = Supported but not in production; ✗ = Not supported

Source: Vendor RFI

## Partnership

**Table 83: Implementation and Support**

Type of Partnership	Partner Vendor
System Integrators	Accenture, Deloitte, EY, KPMG, PWC, Capgemini, Atos, NTT Data, Sopra Steria, DXC Technology, BCG, Kainos, Cognizant, Infosys, IBM, Synechron, HCL, Oliver Wyman, Capco, Publicis Sapient, Alix Partners
Fintech Partners	Photocert, Attestiv, Clearspeed

Source: Vendor RFI

## Implementation, Support, and Pricing

**Table 84: Implementation, Support, and Pricing**

Typical Implementation Team Size	6 to 10
Resource Breakdown	Vendor: 40%; Client: 25%; Third party: 35%
Location of Employees	Quantexa has 31 employees in North America, 115 employees in EMEA, 24 employees in Asia Pacific
Average Time to Implementation	<u>Initial Implementation:</u> 4 to 6 months <u>2nd and subsequent line of business:</u> 1 to 3 months <u>2nd and subsequent states/jurisdictions:</u> 1 to 3 months

<b>Pricing Models</b>	Term license, Enterprise license, Subscription-based license, Other
Source: Vendor RFI	


# SAS: SAS FRAUD DECISIONING FOR CLAIMS

## Company and Product Snapshot

Table 85: Company Snapshot	
Year Founded	1976
Headquarters	Cary, N.C.
Number of Employees	Not disclosed
Revenues (USD)	Not disclosed
Financial Structure	Private
VendorMatch Link	<a href="https://www.celent.com/vendormatch/discover/y/vendors/sas">https://www.celent.com/vendormatch/discover/y/vendors/sas</a>
Source: Vendor RFI	

Table 86: Product Snapshot	
Name	SAS Fraud Decisioning for Claims
Year Originally Released	2009
Current Release and Date of Release	SAS Viya 4.0/2023
Revenue Derived from the Product	Not disclosed
R&D Expense	Not disclosed
FTEs Providing Professional Services for Product	400
Notable Clients	India National Health Authority, Tawuniya (Saudi Arabia), CZ (Netherlands), Clalit (Israel), SC Dept. of Health and Human Services, Oregon Health Authority, Great Eastern Life (Malaysia), Insurance Australia Group, Santal (South Africa), PZU (Poland)
Source: Vendor RFI	

## Functionality

Table 87: Functionality			
Function	In Production	Supported But Not in Production	Not Supported
Data			
Aggregate historical data from different internal databases			

Function	In Production	Supported But Not in Production	Not Supported
Integrate with external data capture tools (IoT, wearables, sensors, etc.)			
Consolidate data coming from external databases			
Data quality checking tools			
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)			
Uses additional hardware infrastructure in the cloud to run models on large amount of data			
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models			
Rules, variables, and models repository			
Compare multiple scenarios / models			
Real time fraud scoring service			
Create multi-variable based algorithms			
Schedule model run-time			
Prioritize model updates and model results			
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification			
Anomaly detection			
Social network analysis			
Claims severity modeling			
Claims frequency modeling			
Claims settlement optimization			
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards			
Assign/share fraud cases with other investigators			
Check fraud case logs (status changes, audit trails, etc.)			
<div>  = Available out of the box  = Configurable using simple tools for business user  = Configurable through a scripting language / coding  = Available with integration to a third party solution  = Under development / on road map </div> <div>  = Configurable using simple tools for IT user  = Available with integration to a separate module provided by this vendor  = Could develop, would be considered customization </div> <div>  = Not available / not applicable </div>			
Source: Vendor RFI			



## GenAI Functionality

**Table 88: GenAI Features**

Elements	Availability
Generative AI integration for fraud detection	✗
Gen AI-based analysis of unstructured data for fraud detection	✗
Integration with external data sources to enhance fraud detection	✗
Automation of claims processing workflow using generative AI	✗
Adaptive learning from new fraud patterns over time	✗
Synthetic data generation for AI training purposes	✗
Automatic creation of communication templates or responses using generative AI	✗
Anomaly detection in insurance claims documents and images	✗
Compliance with insurance regulations and ethical guidelines	✗
Provision of metrics to measure the effectiveness of generative AI in fraud detection	✗
<u>Legend:</u> ✓ = In production; □ = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

## Customer Base

Not disclosed by vendor

Source: Vendor RFI

**Table 89: Implementations by Country**

Region	Countries
North America	Not disclosed by vendor
Europe	
Middle East	
Africa	
Asia-Pacific	
Central America	
South America	
Caribbean	
Source: Vendor RFI	

## Technology

**Table 90: Technology Options**

Technology Options	Responses
<b>Code Base</b>	Java: 50%; Angular: 50%
<b>Integration Methods</b>	Web services; HTML; HTTP; RESTful HTTP style services; Custom APIs; Native messaging
<b>API Details</b>	✓ The API is documented
	✗ External systems can trigger an event in the system which can be responded to by a workflow or business rules system
	✗ API management supports local or global standards such as ACORD application creation and rendering
	✓ API sample codes are available to clients
	✓ API developer portal is available for support and descriptions
	✗ API testing portal and the ability to use scripts on website is available
	✓ The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs
	✓ API version management is available
	✓ Access to the APIs is managed and use of APIs tracked by developers
	✗ Training in extending the system is offered

Legend: ✓ = Available; ✗ = Not available

Source: Vendor RFI

**Table 91: SaaS Capabilities**

Elements	Availability
<b>Support a multi-tenant architecture</b>	✗
<b>Type of effort required to update the solution</b>	✗
<b>Cadence of upgrades for multi-tenant deployments</b>	✗
<b>Deployment approach support elasticity</b>	✗
<b>Current APIs-related strategy</b>	✗
<b>Ability of the deployment model to leverage a serverless approach</b>	✗
<b>Ability to enable independent services (microservices)</b>	✗
<b>Proportion of the system architected as microservices</b>	✗
<b>Support automation of development and deployment processes (DevOps)</b>	✗

Elements	Availability
Ability to run and deploy under containers to improve the application deployment	×
Need for containerization to run in a cloud	×
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	×
<u>Legend:</u> ✓ = Yes × = No ×	
Source: Vendor RFI	

## Artificial Intelligence Capabilities

**Table 92: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	<input type="checkbox"/>
Unsupervised learning	✓
Supervised learning	✓
Feature extraction	✓
Machine vision	<input type="checkbox"/>
Natural language generation (NLG)	✓
Natural language understanding (NLU)	<input type="checkbox"/>
Speech recognition	<input type="checkbox"/>
Speech generation	<input type="checkbox"/>
Conversational capability	<input type="checkbox"/>
AI workflow	✓
Predictive analytics	✓
Image recognition	<input type="checkbox"/>
Generative AI / LLMs	×
<u>Legend:</u> ✓ = In production; <input type="checkbox"/> = Supported but not in production; × = Not supported	
Source: Vendor RFI	

**Table 93: Change Tooling and Upgrades**

Types of Changes	Availability
Business Rule Definition	✓
Data Definition	✓
Table Maintenance, List of Values, etc.	✓
Interface Definition	✓
Product Definition	<input type="checkbox"/>

Types of Changes	Availability
Role-Based Security, Access Control, and Authorizations	✓
Screen Definition	✓
Workflow Definition	✓
<b>Legend:</b> ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; x = Not available	
Source: Vendor RFI	

**Table 94: Public Cloud Options**

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	□	□	□	□
Amazon AWS	□	□	□	□
Google Cloud Platform (GCP)	□	□	□	□
Alibaba Cloud	x	x	x	x
IBM Cloud / Bluemix	x	x	x	x
Oracle Cloud	x	x	x	x
Salesforce Cloud, Force.com, AppExchange	x	x	x	x
Other	x	x	x	x
<b>Legend:</b> ✓ = In production; □ = Supported but not in production; x = Not supported				
Source: Vendor RFI				

## Partnership

**Table 95: Implementation and Support**

Type of Partnership	Partner Vendor
System Integrators	Accenture, Core Compete (now part of Accenture), Tata Consulting (India), Zencos (USA), Paspara (Lithuania), Zreya (Malaysia), Timestamp (Portugal), Accord Business Group (United Arab Emirates), MIAC Computing (Israel), DataScience (Middle East), Facts Consulting (Southern Africa), GMWIT (Brazil), Break in Data (Italy), Performance Technology (Greece), and Datacurate Technologies (India)
Fintech Partners	Guidewire, Duck Creek, ThreatMetrix, GIACT, Plaid, Boku, Prove, Intellicheck, BioCatch, Datavisor, Iovation, Socure, and TransUnion
Source: Vendor RFI	

## Implementation, Support, and Pricing

**Table 96: Implementation, Support, and Pricing**

<b>Typical Implementation Team Size</b>	1 to 5
<b>Resource Breakdown</b>	Vendor: 60%; Client: 30%; Third party: 10%
<b>Location of Employees</b>	SAS has 200 employees in North America, 110 employees in EMEA, 50 employees in Asia Pacific, 40 employees in Latin America
<b>Average Time to Implementation</b>	<u>Initial Implementation</u> : 4 to 6 months <u>2nd and subsequent line of business</u> : 1 to 3 months <u>2nd and subsequent states/jurisdictions</u> : 1 to 3 months
<b>Pricing Models</b>	Term license, Perpetual license, Enterprise license, Subscription-based license, Other
Source: Vendor RFI	

# SHIFT TECHNOLOGY: SHIFT CLAIMS FRAUD DETECTION

## Company and Product Snapshot

**Table 97: Company Snapshot**

<b>Year Founded</b>	2014
<b>Headquarters</b>	Paris
<b>Number of Employees</b>	550
<b>Revenues (USD)</b>	Confidential
<b>Financial Structure</b>	Private
<b>VendorMatch Link</b>	<a href="https://www.celent.com/vendormatch/discover/solutions/153338105">https://www.celent.com/vendormatch/discover/solutions/153338105</a>

Source: Vendor RFI

**Table 98: Product Snapshot**

<b>Name</b>	Shift Claims Fraud Detection
<b>Year Originally Released</b>	2014
<b>Current Release and Date of Release</b>	2.25/0
<b>Revenue Derived from the Product</b>	Confidential
<b>R&amp;D Expense</b>	R&D expense over the past two years has been 30%% of total revenue attributed to this solution
<b>FTEs Providing Professional Services for Product</b>	3
<b>Notable Clients</b>	AXA, Amica, CNA, Economical, Elephant, First Central, Markerstudy

Source: Vendor RFI

## Functionality

**Table 99: Functionality**

Function	In Production	Supported But Not in Production	Not Supported
<b>Data</b>			
Aggregate historical data from different internal databases	●		
Integrate with external data capture tools (IoT, wearables, sensors, etc.)	●		
Consolidate data coming from external databases	●		
Data quality checking tools	●		
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)	●		
Uses additional hardware infrastructure in the cloud to run models on large amount of data	●		
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models	●		
Rules, variables, and models repository	●		
Compare multiple scenarios / models	●		
Real time fraud scoring service	●		
Create multi-variable based algorithms	●		
Schedule model run-time	●		
Prioritize model updates and model results	●		
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification	●		
Anomaly detection	●		
Social network analysis	●		
Claims severity modeling	●		
Claims frequency modeling	●		
Claims settlement optimization	●		
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards	●		
Assign/share fraud cases with other investigators	●		
Check fraud case logs (status changes, audit trails, etc.)	●		

- = Available out of the box
- = Configurable through a scripting language / coding
- = Under development / on road map
- = Configurable using simple tools for business user
- = Available with integration to a third party solution
- = Could develop, would be considered customization
- = Configurable using simple tools for IT user
- = Available with integration to a separate module provided by this vendor
- = Not available / not applicable

Source: Vendor RFI

## GenAI Functionality

Table 100: GenAI Features

Elements	Availability
Generative AI integration for fraud detection	✓
Gen AI-based analysis of unstructured data for fraud detection	✓
Integration with external data sources to enhance fraud detection	✓
Automation of claims processing workflow using generative AI	✓
Adaptive learning from new fraud patterns over time	✓
Synthetic data generation for AI training purposes	✓
Automatic creation of communication templates or responses using generative AI	✓
Anomaly detection in insurance claims documents and images	✓
Compliance with insurance regulations and ethical guidelines	✓
Provision of metrics to measure the effectiveness of generative AI in fraud detection	✓

Legend: ✓ = In production; □ = Supported but not in production; ✕ = Not supported

Source: Vendor RFI

## Customer Base

Not provided

Table 101: Implementations by Country

Region	Countries
North America	Canada, United States
Europe	Belgium, Denmark, France, Germany, Italy, Spain, United Kingdom
Middle East	
Africa	Morocco
Asia-Pacific	Hong Kong, Japan, Malaysia, Singapore
Central America	Mexico
South America	Brazil, Chile, Colombia



**Caribbean**

Source: Vendor RFI

## Technology

**Table 102: Technology Options**

Technology Options	Responses
<b>Code Base</b>	C#: 70%; Java: 7%; PL/SQL: 1%; Python: 21%; Other: 1%
<b>Integration Methods</b>	Web services; XML (not through web services); RESTful HTTP style services; JSON format; Custom APIs; Flat files
<b>API Details</b>	✓ The API is documented
	✓ External systems can trigger an event in the system which can be responded to by a workflow or business rules system
	✗ API management supports local or global standards such as ACORD application creation and rendering
	✓ API sample codes are available to clients
	✓ API developer portal is available for support and descriptions
	✗ API testing portal and the ability to use scripts on website is available
	✓ The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs
	✗ API version management is available
	✓ Access to the APIs is managed and use of APIs tracked by developers
	□ Training in extending the system is offered

Legend: ✓ = Available; □ = Not available

Source: Vendor RFI

**Table 103: SaaS Capabilities**

Elements	Availability
<b>Support a multi-tenant architecture</b>	✓
<b>Type of effort required to update the solution</b>	Evergreen – Client chooses when to upgrade
<b>Cadence of upgrades for multi-tenant deployments</b>	More frequent than every 3 months
<b>Deployment approach support elasticity</b>	Yes, within less than a day
<b>Current APIs-related strategy</b>	Enabled by consumable API
<b>Ability of the deployment model to leverage a serverless approach</b>	✗

Elements	Availability
Ability to enable independent services (microservices)	✓
Proportion of the system architected as microservices	Under 25%
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	✓
Need for containerization to run in a cloud	✗
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✓
<u>Legend:</u> ✓ = Yes ✗ = No	
Source: Vendor RFI	

## Artificial Intelligence Capabilities

**Table 104: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	✓
Unsupervised learning	✓
Supervised learning	✓
Feature extraction	✓
Machine vision	✓
Image recognition	✓
Generative AI / LLMs	✓
<u>Legend:</u> ✓ = In production; □ = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

**Table 105: Change Tooling and Upgrades**

Types of Changes	Availability
Business Rule Definition	⊖
Data Definition	⊖
Table Maintenance, List of Values, etc.	⊖
Interface Definition	⊖
Product Definition	⊖
Role-Based Security, Access Control, and Authorizations	⊖
Screen Definition	⊖
Workflow Definition	⊖

Types of Changes

Availability

Legend:

✓ = Configurable via tools for business users;

☐ = Configurable via tools for IT users;

■ = Configurable via the vendor;

⊖ = Configurable via scripting;

● = Coding required;

✕ = Not available

Source: Vendor RFI

Table 106: Public Cloud Options

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	✓	✓	✓	✓
Amazon AWS	✕	✕	✕	✕
Google Cloud Platform (GCP)	✕	✕	✕	✕
Alibaba Cloud	✕	✕	✕	✕
IBM Cloud / Bluemix	✕	✕	✕	✕
Oracle Cloud	✕	✕	✕	✕
Salesforce Cloud, Force.com, AppExchange	✕	✕	✕	✕
Other	✕	☐	✓	✕

Legend:

✓ = In production;

☐ = Supported but not in production;

✕ = Not supported

Source: Vendor RFI

## Partnership

**Table 107: Implementation and Support**

Type of Partnership	Partner Vendor
System Integrators	Capgemini, Accenture, GFT, Deloitte, EY, BearingPoint, Avanade, Synaxia
Fintech Partners	Guidewire, Sapiens, Microsoft, Guidewire - InsuranceNow, Duck Creek, Keylane, EY, Snapsheet, Majesco, Multi Assistance, Soctra, OpenSanctions, Legentic, CRIF, CIFAS, LexisNexis, Dow Jones, Percayso, Graydon, CreditSafe, ISG, Capgemini, Cognizant
Source: Vendor RFI	

## Implementation, Support, and Pricing

**Table 108: Implementation, Support, and Pricing**

Typical Implementation Team Size	1 to 5
Resource Breakdown	Vendor: 90%; Client: 10%

<b>Location of Employees</b>	Shift Technology has 29 employees in North America, 104 employees in EMEA, 14 employees in Asia Pacific, 4 employees in Latin America
<b>Average Time to Implementation</b>	<u>Initial Implementation</u> : 1 to 3 months <u>2nd and subsequent line of business</u> : 1 to 3 months <u>2nd and subsequent states/jurisdictions</u> : 1 to 3 months
<b>Pricing Models</b>	Subscription-based license
Source: Vendor RFI	

# VERISK: VERISK'S ANTI-FRAUD SOLUTIONS

## Company and Product Snapshot

Table 109: Company Snapshot	
Year Founded	1971
Headquarters	Jersey City, NJ
Number of Employees	8,000
Revenues (USD)	\$2.7 billion
Financial Structure	Public company NASDAQ: VRSK
VendorMatch Link	<a href="https://www.celent.com/solutions/417215462">https://www.celent.com/solutions/417215462</a>
Source: Vendor RFI	

Table 110: Product Snapshot	
Name	Verisk's Anti-Fraud Solutions
Year Originally Released	1971
Current Release and Date of Release	Daily data updates/2022
Revenue Derived from the Product	Not disclosed
R&D Expense	Not disclosed
FTEs Providing Professional Services for Product	1000
Notable Clients	Not disclosed
Source: Vendor RFI	

## Functionality

Table 111: Functionality			
Function	In Production	Supported But Not in Production	Not Supported
Data			
Aggregate historical data from different internal databases	●		
Integrate with external data capture tools (IoT, wearables, sensors, etc.)	●		
Consolidate data coming from external databases	●		
Data quality checking tools	●		

Function	In Production	Supported But Not in Production	Not Supported
Automatic data adjustment prompts (unstructured, inconsistency or redundancy of data)	●		
Uses additional hardware infrastructure in the cloud to run models on large amount of data	●		
<b>Model Configuration</b>			
Reusable, sharable rules, variables, and models	●		
Rules, variables, and models repository	●		
Compare multiple scenarios / models	●		
Real time fraud scoring service	●		
Create multi-variable based algorithms	●		
Schedule model run-time	●		
Prioritize model updates and model results	●		
<b>Claims fraud detection techniques and claims-related models</b>			
Fraud pattern identification	●		
Anomaly detection	●		
Social network analysis	●		
Claims severity modeling	●		
Claims frequency modeling	●		
Claims settlement optimization	●		
<b>Special Investigation Unit (SIU)</b>			
Design and update monitoring dashboards	●		
Assign/share fraud cases with other investigators	●		
Check fraud case logs (status changes, audit trails, etc.)	●		
<div> <div>● = Available out of the box</div> <div>● = Configurable using simple tools for business user</div> <div>● = Configurable using simple tools for IT user</div> </div> <div> <div>● = Configurable through a scripting language / coding</div> <div>● = Available with integration to a third party solution</div> <div>● = Available with integration to a separate module provided by this vendor</div> </div> <div> <div>● = Under development / on road map</div> <div>● = Could develop, would be considered customization</div> <div>● = Not available / not applicable</div> </div>			

Source: Vendor RFI

## GenAI Functionality

**Table 112: GenAI Features**

Elements	Availability
Generative AI integration for fraud detection	✓

<b>Gen AI-based analysis of unstructured data for fraud detection</b>	✓
<b>Integration with external data sources to enhance fraud detection</b>	✓
<b>Automation of claims processing workflow using generative AI</b>	✓
<b>Adaptive learning from new fraud patterns over time</b>	✗
<b>Synthetic data generation for AI training purposes</b>	✗
<b>Automatic creation of communication templates or responses using generative AI</b>	✓
<b>Anomaly detection in insurance claims documents and images</b>	✓
<b>Compliance with insurance regulations and ethical guidelines</b>	✓
<b>Provision of metrics to measure the effectiveness of generative AI in fraud detection</b>	✓
<b>Legend:</b> ✓ = In production; □ = Supported but not in production; ✗ = Not supported	
Source: Vendor RFI	

## Customer Base

Not disclosed

Source: Vendor RFI

**Table 113: Implementations by Country**

Region	Countries
<b>North America</b>	Not disclosed
<b>Europe</b>	
<b>Middle East</b>	
<b>Africa</b>	
<b>Asia-Pacific</b>	
<b>Central America</b>	
<b>South America</b>	
<b>Caribbean</b>	
Source: Vendor RFI	

## Technology

**Table 114: Technology Options**

Technology Options	Responses
<b>Code Base</b>	C#: 20%; Java: 65%; JavaScript: 10%; Python: 5%
<b>Integration Methods</b>	Web services; HTML; HTTP; RESTful HTTP style services; JSON format; Flat files
<b>API Details</b>	✓ The API is documented

Technology Options	Responses
	✓ External systems can trigger an event in the system which can be responded to by a workflow or business rules system
	✓ API management supports local or global standards such as ACORD application creation and rendering
	✓ API sample codes are available to clients
	✓ API developer portal is available for support and descriptions
	✓ API testing portal and the ability to use scripts on website is available
	✓ The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs
	✓ API version management is available
	✓ Access to the APIs is managed and use of APIs tracked by developers
	✓ Training in extending the system is offered
	□
<u>Legend:</u> ✓ = Available; □ = Not available	
Source: Vendor RFI	

**Table 115: SaaS Capabilities**

Elements	Availability
Support a multi-tenant architecture	✓
Type of effort required to update the solution	Other
Cadence of upgrades for multi-tenant deployments	More frequent than every 3 months
Deployment approach support elasticity	Yes, automatically
Current APIs-related strategy	Pre-connected cloud environment (fully connected and ready to use)
Ability of the deployment model to leverage a serverless approach	✓
Ability to enable independent services (microservices)	✓
Proportion of the system architected as microservices	25% to 50%
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	✓
Need for containerization to run in a cloud	✗
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✓



Elements	Availability
<u>Legend:</u> ✓ = Yes ✕ = No	
Source: Vendor RFI	

## Artificial Intelligence Capabilities

**Table 116: AI Capabilities**

Elements	Availability
Machine learning	✓
Deep learning	✓
Unsupervised learning	✓
Supervised learning	✓
Feature extraction	✓
Machine vision	✓
Natural language generation (NLG)	☐
Natural language understanding (NLU)	☐
Speech recognition	✕
Speech generation	✕
Conversational capability	✕
AI workflow	✓
Predictive analytics	✓
Image recognition	✓
Generative AI / LLMs	✓
<u>Legend:</u> ✓ = In production; ☐ = Supported but not in production; ✕ = Not supported	
Source: Vendor RFI	

**Table 117: Change Tooling and Upgrades**

Types of Changes	Availability
Business Rule Definition	✓
Data Definition	●
Table Maintenance, List of Values, etc.	●
Interface Definition	●
Product Definition	●
Role-Based Security, Access Control, and Authorizations	✓
Screen Definition	●
Workflow Definition	●
<u>Legend:</u> ✓ = Configurable via tools for business users; ☐ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; ✕ = Not available	
Source: Vendor RFI	

**Table 118: Public Cloud Options**

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	×	×	×	×
Amazon AWS	□	□	×	×
Google Cloud Platform (GCP)	×	×	×	×
Alibaba Cloud	×	×	×	×
IBM Cloud / Bluemix	×	×	×	×
Oracle Cloud	×	×	×	×
Salesforce Cloud, Force.com, AppExchange	×	×	×	×
Other	×	×	×	×

Legend: ✓ = In production; □ = Supported but not in production; × = Not supported

Source: Vendor RFI

## Partnership

**Table 119: Implementation and Support**

Type of Partnership	Partner Vendor
System Integrators	None
Fintech Partners	None

Source: Vendor RFI

## Implementation, Support, and Pricing

**Table 120: Implementation, Support, and Pricing**

Typical Implementation Team Size	11 to 15
Resource Breakdown	Vendor: 10%; Client: 50%; Third party: 40%
Location of Employees	Verisk has 1000 employees in North America, 200 employees in EMEA, 50 employees in Asia Pacific
Average Time to Implementation	<u>Initial Implementation:</u> 0 to 3 months <u>2nd and subsequent line of business:</u> 0 to 3 months <u>2nd and subsequent states/jurisdictions:</u> 0 to 3 months
Pricing Models	Term license, Perpetual license, Enterprise license, Subscription-based license, Other

Source: Vendor RFI



# PATH FORWARD

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Insurance fraud is an age-old problem that will never cease to exist, but today's carriers have an opportunity to leverage solutions that will help them to at least mitigate this costly problem. Many carriers have focused on automating human touchpoints and creating a more frictionless claims process. But with that comes increased susceptibility to fraud. As such, fraud-detection tools are vital resources with a proven ROI that Celent strongly suggests carriers employ.

## For Insurers

There is no "one-size-fits-all" fraud solution, but insurers can take comfort in the fact that there are myriad options to fit almost any set of requirements. An insurer seeking a new fraud detection system should begin the process by looking inward. Every insurer has its distinctive mix of lines of business, geography, staff capabilities, business objectives, and financial resources. This unique combination and the organization's risk appetite will influence the list of vendors for consideration.

Some vendors are a better fit for an insurance company with a large IT group that is deeply proficient with the most modern platforms and tools. Other vendors are a better fit for an insurance company with a small IT group that wants the vendor to take a leading role in maintaining and supporting its applications.

We recommend that insurers looking for a fraud detection solution narrow their choices by focusing on four areas:

- **Technology:** Leading fraud detection tools have invested in AI/ML to create real time fraud scoring models. Carriers should be aware of both their business needs and the solution's capabilities so they can ensure the tool is best aligned with their objectives. It should be noted that not all carriers need the most cutting-edge fraud detection tools.
- **Functional capabilities:** It is important to understand the functionality needed and available out of the box. Carriers should also check to see what is actually in production.
- **Vendor stability, knowledge, and investment in the solution:** Consider the partnership dimension carefully. Key functional gaps are quickly closed by leading vendors.
- **Implementation and support capabilities and experience:** The relationship between an insurer and its fraud detection platform vendor will likely last a

few years or more. Celent can help with selection projects; we know the vendors and the markets well.

## For Vendors

Solution providers have invested significantly in bolstering their capabilities and differentiating themselves from their peers. The result is a maturing solution environment. The leading vendors have strong AI/ML capabilities, are delivering robust functionality, employ open application programming interfaces (APIs) for ease of integration, and are cloud ready.

Celent recommends vendors differentiate themselves by:

- Developing increasingly useful AI/ML models that can effectively make decisions.
- Continuing to move to open APIs and other integration frameworks to drive the easy orchestration of processes and data across external digital capabilities.
- Focusing on improving usability for both new and experienced users and managers.
- Making implementation faster and less expensive. It may be worth considering pre-integrating with a core claims system vendor.
- Continuing to expand functionality—especially in different lines of business and in the use of AI and analytics capabilities.
- Investing in embedding cloud-native capabilities into the product.

*Was this report useful to you? Please send any comments, questions, or suggestions for upcoming research topics to [info@celent.com](mailto:info@celent.com).*

# LEVERAGING CELENT'S EXPERTISE

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If you found this report valuable, you might consider engaging with Celent for custom analysis and research. Our collective experience and the knowledge we gained while working on this report can help you streamline the creation, refinement, or execution of your strategies.

## Support for Financial Institutions

Typical projects we support include:

**Vendor short listing and selection.** We perform discovery specific to you and your business to better understand your unique needs. We then create and administer a custom RFI to selected vendors to assist you in making rapid and accurate vendor choices.

**Business practice evaluations.** We spend time evaluating your business processes and requirements. Based on our knowledge of the market, we identify potential process or technology constraints and provide clear insights that will help you implement industry best practices.

**IT and business strategy creation.** We collect perspectives from your executive team, your front line business and IT staff, and your customers. We then analyze your current position, institutional capabilities, and technology against your goals. If necessary, we help you reformulate your technology and business plans to address short-term and long-term needs.

## Support for Vendors

We provide services that help you refine your product and service offerings.

Examples include:

**Product and service strategy evaluation.** We help you assess your market position in terms of functionality, technology, and services. Our strategy workshops will help you target the right customers and map your offerings to their needs.

**Market messaging and collateral review.** Based on our extensive experience with your potential clients, we assess your marketing and sales materials—including your website and any collateral.

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