

CELENT



FINANCIAL CRIME COMPLIANCE TECHNOLOGY: AML TRANSACTION MONITORING EDITION

2023 XCelent Awards, Powered by VendorMatch

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This is an authorized excerpt from a Celent report profiling AML transaction monitoring vendors. The reprint was prepared for SymphonyAI, but the analysis has not been changed. For more information about the full report, please contact Celent at info@celent.com.

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EXECUTIVE SUMMARY

This is Celent’s fifth review of anti-money laundering (AML) transaction monitoring systems available to financial institutions and other regulated companies. The 17 vendors profiled in the report—including both incumbent providers and new regtech entrants—show how next-generation technologies continue to reshape financial crime compliance in the financial industry.

Digital transformation in financial crime compliance has evolved through three technology pivots: machine learning (ML), digital tools such as no code configuration and process automation, and—most recently—large language models (LLMs). These technologies are becoming necessary capabilities for AML systems. Because they are still maturing, there remains ample opportunity within banks to realize more effective and efficient financial crime compliance operations by applying these and other next-generation techniques. How banks are doing this often depends on their size and position in the industry.

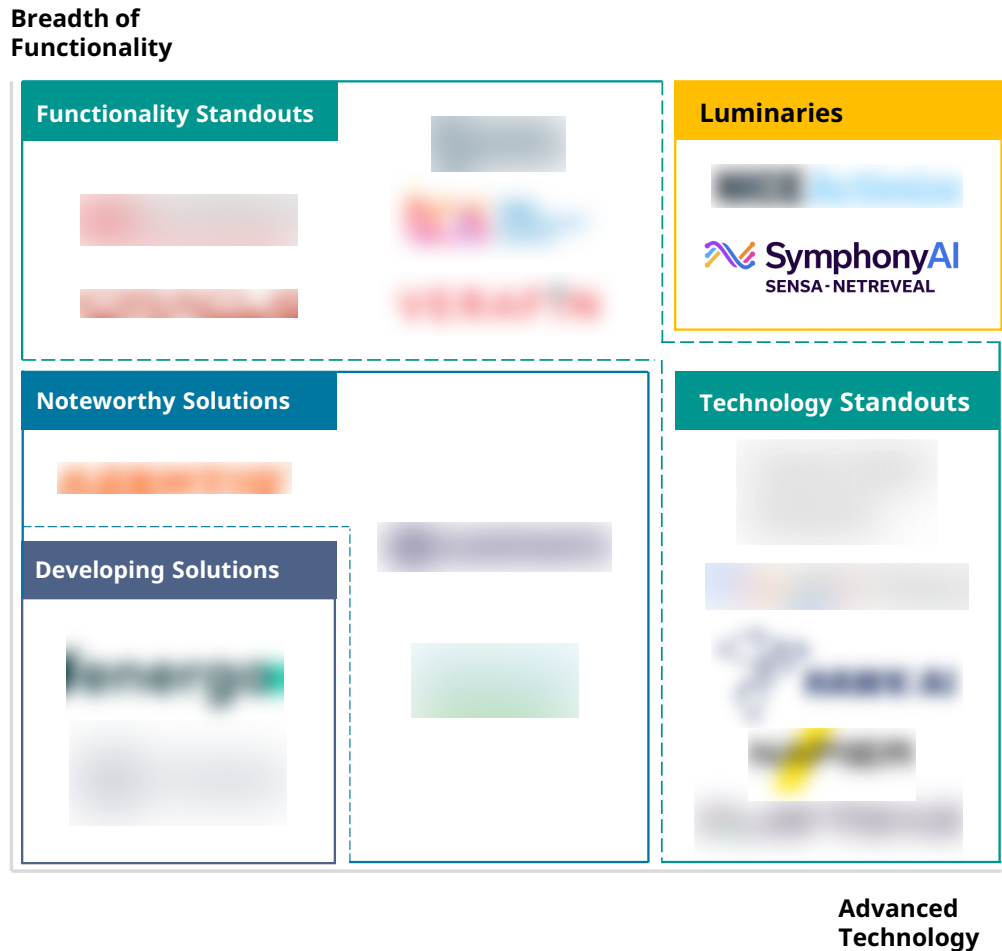
- Large financial institutions seeking to achieve these capabilities often continue to rely on incumbent financial crime compliance technology providers. Because incumbent systems typically suffer from high false positive rates due to a reliance on traditional rules, large institutions are supplementing these primary systems with AI-enabled solutions, as well as internal machine learning models. Some forward-looking institutions are even moving to an ML platform as their primary transaction monitoring solution.
- Smaller institutions, challenger banks, and non-bank sectors such as digital payments, crypto business, and gaming—which run on cloud-based, AI-enabled technology themselves—tend to choose digitally-enabled systems from new regtech entrants.
- At the same time, increasing regulatory focus on non-bank sectors is leading the non-banks to adopt incumbent solutions with stronger case management, compliance, and audit capabilities.

This report aims to support financial institutions with their financial crime compliance technology decisions. The report looks at both incumbent and regtech AML transaction monitoring systems from across the globe and evaluates them according to Celent’s ABC Vendor View and Celent’s Technology Capabilities Matrix.

The report features 17 profiled vendors and 12 fully participating in the ABC Vendor View analysis.

Celent’s Technology Capabilities Matrix (TCM) offers a categorization of vendors and also includes vendors that did not participate fully in our ABC analysis. Celent’s TCM assignments are shown in Figure 1 below.

Figure 1: Technology Capabilities Matrix: AML Transaction Monitoring



Source: Celent

Financial Crime Compliance Report Series

Companion reports in Celent’s 2023 series on AML systems will include:

- *Financial Crime Compliance Systems: Watchlist Screening Edition—2023 XCelent Awards, Powered by VendorMatch*: Evaluates providers of watchlist screening software.
- *Crypto Investigative Tools for AML: A Regtech Solutionscape*: Profiles providers of specialist AML solutions for cryptocurrencies,

CELENT'S ABC VENDOR VIEW

To help financial institutions better understand the vendor landscape and compare providers, Celent developed its ABC methodology, which positions vendors across three dimensions: **A**dvanced Technology, **B**readth of Functionality, and **C**ustomer Base and Support.

The final rating for each of these three dimensions is based on 1) vendor responses to a Celent RFI, 2) product demonstrations to Celent analysts, and 3) client responses to a customer reference survey. The final rating is determined by Celent's score of these factors as well as our view of the relative importance of the factors as they apply to both solution and vendor capabilities. The latter determines the weight Celent places on each variable.

This report normalizes all scores on a 0 to 10-point scale. As a result, we are able to show relative scores for each ABC edition in the financial crime compliance space and, importantly, help financial institutions differentiate vendors across their peer group.

Celent invited 40 vendors of AML transaction monitoring software worldwide to participate in Celent's research. Because some vendors chose not to participate or ultimately did not fulfill the participation requirements, the final report features 14 fully profiled vendors and 12 participating in our ABC Vendor View analysis. Celent's ABC Methodology is described in detail in the Appendix. The report also features three brief profiles on vendors that for various reasons did not participate in the RFI.

We suggest financial institutions consider their specific needs and each vendor for what it offers. Although they are very successful in one or more of the criteria, the XCelent Award winners may or may not be the best match for a financial institution's specific goals and solution requirements.

VENDOR PROFILES

The following sections profile each of the 17 AML transaction monitoring vendors and their solutions. The 14 full profiles include a company overview, product overview, product analysis, recent and planned product enhancements, selling and servicing, and Celent’s assessment of the company/product. All vendor-supplied information cited in the following profiles was accurate as of May 2023.

The table below lists the vendors profiled in this report, along with their regional client footprint. Vendors fully participating with detailed RFI responses and customer references are included in the ABC Vendor View and the Technology Capabilities Matrix. Those who provided RFI details but not customer references have Vendor Profiles without Customer Feedback and are included in the Technology Capabilities Matrix only. Vendors had an opportunity to review their profiles in this report for factual accuracy. Some of the vendors profiled are Celent clients, and some are not. We present vendor information objectively, regardless of commercial relationship.

Table 1: List of Profiled Vendors

	NA	EMEA	APAC	LATAM	ABC
System 1	■ ■	■ ■	■ ■	—	✓
System 2	—	■ ■	■ ■	—	✓
System 3	■ ■	■ ■	■	—	✓
System 4	■ ■	■ ■	—	■	✓
System 5	■ ■	■ ■	■	■	✓
System 6	—	■	■	■	
System 7	■	■ ■	■ ■	—	
System 8	■ ■	■ ■	—	—	✓
System 9	■ ■	■ ■	■ ■	—	
System 10	■ ■	■ ■	■ ■	■ ■	✓
System 11	■ ■	■ ■	■ ■	■ ■	✓
System 12	■ ■	■ ■	■ ■	■ ■	✓
System 13	■ ■	■ ■	■ ■	■ ■	
SymphonyAI Sensa-NetReveal	■ ■	■ ■	■ ■	—	✓
System 15	■ ■	■ ■	■ ■	—	✓
System 16	■	■ ■	■ ■	■	✓
System 17	■ ■	—	—	—	

Key: ■ ■ = 3 or more clients in production in regions; ■ = 1–2 clients; — = Not in region

Source: Vendor RFIs, Celent analysis

SYMPHONYAI: SENA-NETREVEAL AML TRANSACTION MONITORING

Company and Product Snapshot

SymphonyAI is a private company established by the Symphony Technology Group (founded 2002) that provides AI- and SaaS-enabled business solutions for a variety of industries, including retail, media, IT, public sector, crypto, and financial services. SymphonyAI acquired NetReveal, the financial crime solutions business of BAE Systems, in 2022. The NetReveal AML solutions were originally developed by Norkom Technologies, which was itself acquired by BAE Systems in 2011. In 2023, SymphonyAI joined their NetReveal and Sensa businesses to form Sensa-NetReveal, the financial crime division of SymphonyAI. The Sensa-NetReveal transaction monitoring suite combines technology from both parts of the business.

Table 2: Company Snapshot: SymphonyAI

Year Founded	2017
Headquarters	Palo Alto, California, USA
Number of Employees	2,200
Revenues (USD)	275 million
Financial Structure	Private
VendorMatch Link	https://www.celent.com/vendormatch/discovery/vendors/138475748

Source: Vendor RFI

The last major change to the technology base of the solution was in 2019. Technology changes at that time included a Spark-enabled detection engine that significantly reduced batch processing time, according to the vendor.

Table 3: Product Snapshot

Name	Sensa-NetReveal AML Transaction Monitoring
Year Originally Released/In Production	2008/2008
Current Release (Date of Release)	V9 (2022)
Revenue Derived from the Product	Not disclosed
R&D Expense	R&D expense over the past two years has been 10 - 15% of total revenue attributed to this solution

FTEs Providing Professional Services for Product	750
Notable Clients	Metro Bank, Bankinter, CecaBank
Source: Vendor RFI	

Celent Opinion

SymphonyAI Sensa-NetReveal provides a comprehensive set of financial crime compliance solutions, including transaction monitoring, KYC/CDD, and sanctions screening. Outputs from each of these modules can be fed into Sensa-NetReveal’s case management system for integrated, entity-based alert and case investigation.

Machine learning is used both to augment rules-based detection and to prioritize alerts to reduce time spent on false positives during the investigation process. Supervised and unsupervised machine learning models use an organization’s existing data to detect hidden risk patterns. Integrated out of the box rules and AI-led detections are processed together through Sensa-NetReveal case management.

Clients can risk rate alerts according to their specific criteria using OOTB auto-tuning models, including gradient boost and logistic regression models focused on alert triage.

Features of the Sensa-NetReveal Suite solution include:

- Graphical features to support intuitive and efficient rules configuration. These include sliders for setting thresholds and toggle switches to invoke specific rules at both the account and client level.
- Comprehensive alert, transaction, and customer information on a consolidated screen with drill down capability.
 - In addition to the tabular view, the system organizes the data into intuitive graphs presenting analyses of transaction activity by transaction type, time period, currencies, counterparties by region, and other views for quick comprehension by analysts.
- Checklist-based workflow for assisted creation of reports such as SARs. The workflow moves analysts through each report section in a logical order and allows analysts to select which case details to populate the report with.

Table 4: Celent’s View of SymphonyAI Sensa-NetReveal AML Transaction Monitoring

Strengths and Differentiators	Caution Points	Coollest Feature
<ul style="list-style-type: none"> • Combined rules and AI-based detection and alerts • Model ops with self-tuning OOTB alert triage models 	<ul style="list-style-type: none"> • Limited configurability by business users 	<ul style="list-style-type: none"> • Sensa Copilot, generative AI-based digital assistant

- Assisted SARs workflow
- Network visualization lacks flow of funds analysis
- Cloud solution is not fully containerized

Source: Celent analysis

- In addition to an enterprise edition targeted at larger financial institutions, Sensa-NetReveal offers a cloud-based managed services version targeted at smaller firms.
- The case management system can integrate with Sensa Copilot, a digital assistant that leverages generative AI. The digital assistant assembles and analyzes internal and external data in order to execute investigation requests by compliance analysts.

Roadmap items for Sensa-NetReveal include real time transaction monitoring for AML, dashboard analysis and visualization of cryptocurrency risk leveraging Ciphertrace data, simplification of rule logic, and risk scoring enhancements.

Functionality

Celent’s assessment of the Sensa-NetReveal AML Transaction Monitoring system’s functionality is shown in the table below.

Table 5: AML Transaction Monitoring Features Availability

Function	Features	Availability
Behavior Detection	Real Time Monitoring	○
	Monitors All Transactions	●
	Historical profiling	●
	Product/Transaction Support	◉
	Language/Currency Support	●
	Channel Support	●
Rules and Analytics	Prepackaged Rules	58
	Rules Configuration	●
	Risk Scoring	●
	Network/Link Analysis	●
	False Positives Reduction	◉
	AI/Machine Learning	●
Case Management	Workflow Configurability	◉
	Process Automation	◉
	Entity-Based Alerts	●
	Investigations Support	●

Reporting	Visualization Tools	●
	AML/Fraud Integration	●
	Assignments/Queueing	○
	Prepackaged Reports	●
	Ad Hoc Reporting	○
	Regulatory Reporting	○
	Audit Trail	●

●	All features supported	●	All features supported with integration to separate module from vendor
○	Most features supported	○	Most features supported with integration to separate module from vendor
○	Some features supported	●	All features supported, mix of out of the box and available with integration
○	Few features supported	○	Most features supported, mix of out of the box and available with integration
○	Not available	●	All features supported with 3 rd party integration
		○	Most features supported with 3 rd party integration

Source: Vendor RFI

Analytics

Sensa-NetReveal provides an advanced analytics module that can be used for data discovery to optimize scenario thresholds and customer segmentation. AI capabilities include supervised and unsupervised learning, predictive analytics, feature extraction, and AI workflow.

PMML models can be imported and executed in transaction monitoring. The Sensa-NetReveal system also provides model ops features to develop and run models within the transaction monitoring solution.

The Sensa-NetReveal Enterprise Investigations Manager (EIM) provides alert search. An ML Dashboard provides alert hibernation recommendations with a graphical depiction of the breakdown between predicted false positives and true positives. This allows users to review model performance before activating alert hibernation.

According to the vendor, their solution achieves average false positive rates of 61–70%. Features used to reduce false positive rates for transaction monitoring include alert roll-ups that allow investigators to work multiple detections on one customer within the same alert. Sensa-NetReveal also provides machine learning-based alert triage that moves lower value alerts into an active hibernate status which allows investigators to prioritize the riskier alerts first.

Table 6: Support for Analytics

Function	Availability
Alert Generation: Predefined Rules	✓
Alert Generation: Predictive Analytics	✓
Alert Generation: AI	✓
Network Analysis Visualization	✓
Unstructured Data Analysis	✗
Unstructured Data Analysis: Adverse Media	✗
Big Data Analysis	✓

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

Source: Vendor RFI

Automation

Process automation capabilities within case management include queuing and routing based on various alert criteria; standard workflows for transaction monitoring, watchlist screening, and customer due diligence, autopopulation of cases with alert details / transaction analysis, and assisted workflow for SARs.

Table 7: Support for Process Automation

Function	Availability
Entity-Based Alerting	✓
Auto-Creation of Cases: RPA	✓
Auto-Creation of Cases: NLP and NLG	✗
False Positives Suppression: Rules	✗
False Positives Suppression: ML	□
Auto-Reporting: Templates	□
Auto-Reporting: NLG	✗

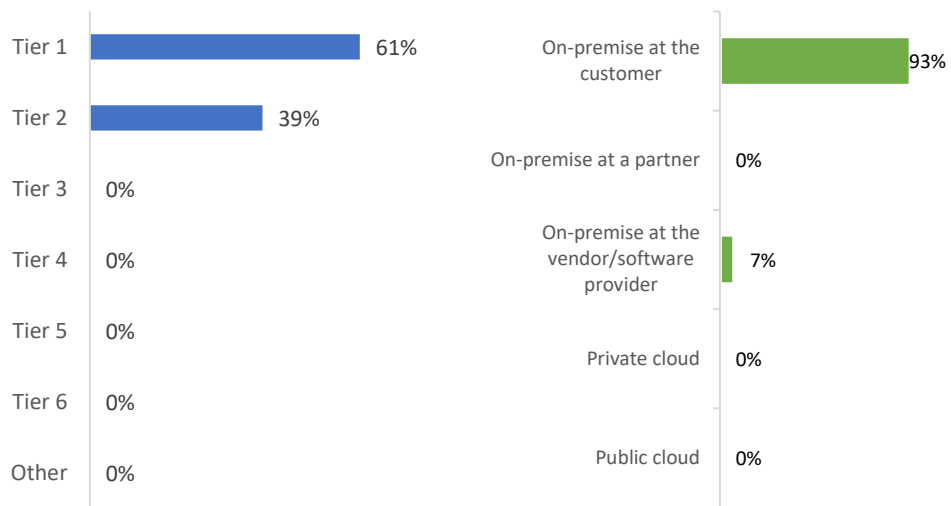
Legend: ✓ = In production; □ = Supported but not in production; ✗ = Not supported

Source: Vendor RFI

Customer Base

Sensa-NetReveal has a total of 128 clients worldwide in production with their AML transaction monitoring system. Sensa-NetReveal’s client base is dominated by retail and corporate banks, including many Tier 1 and Tier 2 banks, and also has a number of insurers. A relatively small number of clients are deploying the cloud version of Sensa-NetReveal.

Figure 2: Client Base by Size and Deployment Option



Source: Vendor RFI

Table 8: Industry Sectors Supported

Sector	Availability
Retail Banking	✓
Corporate Banking	✓
Brokerage	☐
Asset Management	☐
Hedge Funds	✗
Insurance	✓
Money Services Business	✓
E-commerce companies	✓
Casinos	✗
Non-financial corporates	✓

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

Source: Vendor RFI

Sensa-NetReveal has implemented its AML transaction monitoring system in the countries shown in the table below.

Table 9: Implementations by Country

Region	Countries
North America	Canada, United States
Europe	Austria, Belgium, Bosnia and Herzegovina, Croatia, Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Luxembourg, Moldova, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, Switzerland, Ukraine, United Kingdom
Middle East	Egypt, Qatar, United Arab Emirates
Africa	South Africa
Asia-Pacific	Australia, Brunei Darussalam, Indonesia, Malaysia, New Zealand, Singapore
Central America	
South America	
Caribbean	

Source: Vendor RFI

Customer Feedback

Two clients provided feedback on SymphonyAI Sensa-NetReveal. One client uses the system in EMEA, and the other client uses the system in APAC. One client deploys it on-premise at their company and the other deploys it on-premise at the vendor. One client has been using the system for three to five years and the other is still implementing it.

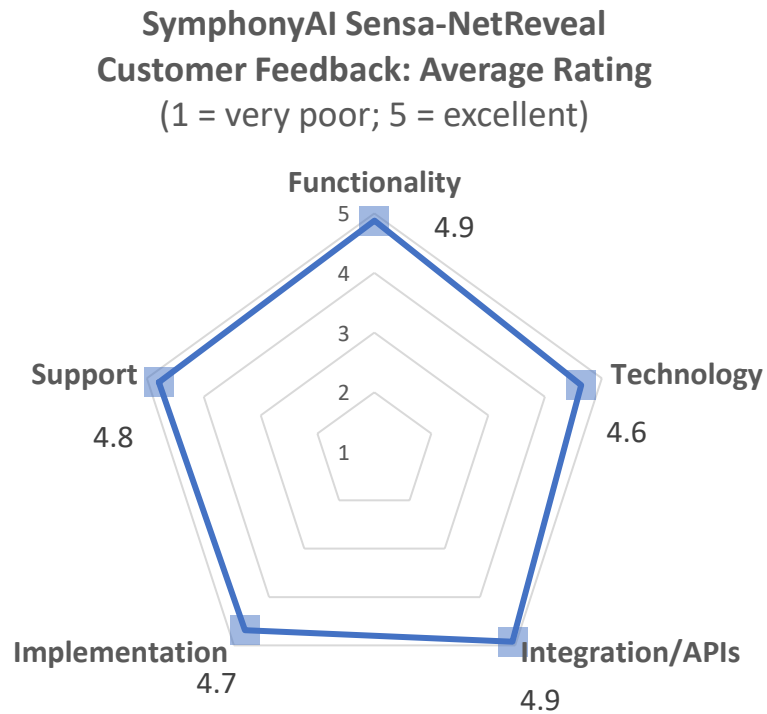
Clients rated Sensa-NetReveal strongly overall. For functionality, respondents appreciated the historical profiling for individual accounts, while false positives reduction was not rated as favorably. Within technology, scalability of the solution was scored the highest and ease of system maintenance was seen as weaker.

Clients felt the solution integrated most easily with their core processing systems and integrated less well with reporting systems. Regarding their implementation experience, responsiveness (handling of issue resolution) received the highest marks while implementation completed on budget received the lowest score. Finally, in the area of ongoing system support, responsiveness (handling and speed of issue resolution) received the highest score while work completed on time was seen as an area of relative weakness.

When asked what they liked best, one client appreciated the flexibility. Another client appreciated Sensa-NetReveal's ease of use and user friendliness, also stating that the functions of the application suit their business needs.

One client had no suggestions for improvement. The other client hoped for better reporting functionality that gives the user more flexibility to run reports and do analysis with their data to assist with potential rule refinements and additions via a drag-and-drop functionality that can be used to leverage all types of transaction data, particularly transaction data that isn't available in reporting.

Figure 3: Customer Feedback

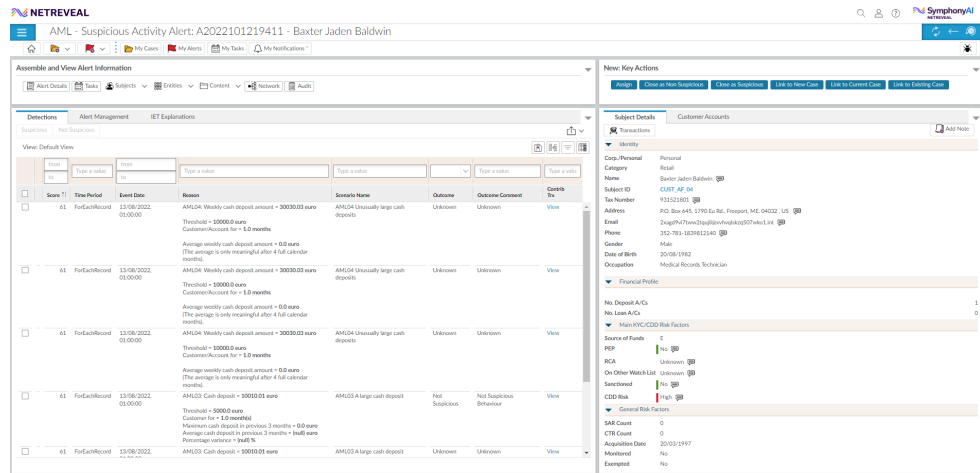


Source: Celent AML Transaction Monitoring Client Reference Survey

Technology

Sensa-NetReveal AML Transaction Monitoring is most often deployed on premise. The solution uses a Spark analytics engine to support scalability and accelerated batch processing. Sensa-NetReveal also provides its solution set on a cloud-based, managed services basis.

Figure 4: Screenshot—SymphonyAI Sensa-NetReveal AML Transaction Monitoring



Source: Vendor

Table 10: Technology Options

Technology Options	Responses
Code Base	Java: 100%
Databases Supported	DB2, Oracle, PostgreSQL, SQL
Integration Methods	Web services; XML, not through web services; HTML; HTTP; RESTful HTTP-style services; JSON format; MQSeries, JMS or similar queue technology; Flat files; Other integration methods
Scalability	Largest live implementations: - 25 million transactions per day across 100 million accounts - 6,000 users
API Details	<input checked="" type="checkbox"/> The API is documented <input checked="" type="checkbox"/> External systems can trigger an event in the system which can be responded to by a workflow or business rules system <input type="checkbox"/> API sample codes are available to clients <input type="checkbox"/> The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs

Legend: = Available; = Not available

Source: Vendor RFI

Architecture and technology features that support SaaS deployment of the solution are outlined in the table below.

Table 11: SaaS Capabilities

Elements	Availability
Supports a multi-tenant architecture	✓
Type of effort required to update the solution	Project based with expert professional services
Cadence of upgrades for multi-tenant deployments	More than every 12 months
Ability of the deployment model to leverage a serverless approach	✗
Proportion of the system architected as microservices	Under 25%
Supports automation of development and deployment processes (DevOps)	✓
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	

The table below shows which aspects of the solution can be configured by business and/or IT users and which aspects require vendor involvement.

The vendor estimates that, in recent implementations, 5% of total costs were the result of core code/development modifications.

Table 12: Change Tooling and Upgrades

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

Partnerships

The vendor's implementation and functionality partners are shown below.

Table 13: Implementation and Support

Type of Partnership	Partner Vendor
System Integrators	DXC Technology; Mphasis; PWC, EY
Fintech/Regtech Partners	Arachnys, CipherTrace, Dun & Bradstreet, Guidewire, Kyckr, Polonius, DETECTSystem, Kharon, Dow Jones

Source: Vendor RFI

Implementation, Pricing, and Support

Support for implementation and service is indicated in the table below.

Table 14: Implementation, Support, and Pricing Models

Typical Implementation Team Size	6 to 10
Resource Breakdown	Vendor: 100%; Client: 0%; Third Party: 0%
Location of Employees	North America: 3, EMEA: 42, APAC: 22, LATAM: 0
Average Time to Implementation	<u>Initial Implementation</u> : 7 to 12 months <u>2nd and subsequent line of business</u> : 4 to 6 months <u>2nd and subsequent states/jurisdictions</u> : 4 to 6 months
Pricing Models	Term license, Subscription-based license, Perpetual license
Annual Maintenance Fee	0

Source: Vendor RFI

The total cost to implement this AML transaction monitoring solution can vary according to the scope of system use and other factors. The vendor has not disclosed the typical costs for licensing, implementation fees and other out-of-pocket costs paid to the vendor, and other costs (third party vendors/contractors, hardware, etc.) for the first year and subsequent years.

Table 15: Implementation and Running Cost Estimates

	Licensing	Implementation/ Vendor Costs	All Other
Average Year 1 Cost			
Average Cost, Subsequent Years		Not disclosed	

Source: Vendor RFI

APPENDIX: CELENT'S ABC METHODOLOGY

Celent actively reviews vendor systems in the risk management and compliance market. This report profiles 17 AML transaction monitoring systems and evaluates them according to Celent's ABC Vendor View and Transaction Capabilities Matrix.

To analyze the capabilities of AML transaction monitoring systems, we invited 40 software vendors worldwide to participate in Celent's research. Because some vendors chose not to participate or ultimately did not fulfill the participation requirements, the report features 14 fully profiled vendors and 12 fully participating in our ABC Vendor View analysis. The report also features three brief profiles on vendors that for various reasons did not participate in the RFI. There was no cost for vendors to participate.

Celent asked vendors to :

1. Complete a detailed RFI on Celent's VendorMatch platform.
2. Conduct a product briefing and solution demonstration.
3. Provide client references to take an online survey developed by Celent.

Each of these steps is described in the following sections.

VendorMatch RFI

Celent used its unique VendorMatch platform to gather RFI data from each vendor. VendorMatch is the world's largest vendor and solutions data store—combined with analytical tools—to help financial institutions find, evaluate, and select a solution. Each profile contains a link to the vendor's VendorMatch listing.

The RFI for this vendor evaluation study gathered responses on some 150 behavior detection, rules and analytics, case management, and reporting functionalities of AML transaction monitoring systems. The RFI also gathered information on eight other dimensions common to any system including company/ product information, technology base and scalability, deployment options, implementation, security and availability, commercial terms, and client base, as shown in the table below.

As part of the VendorMatch RFI process, Celent gathered much more information about each solution than is reflected in this report. Celent subscription clients can leverage advisory access to connect with the author and learn more about the vendors. Since the online database can be updated by vendors at any time, the online data may be more current than this report.

Table 16: Celent AML Transaction Monitoring Systems RFI

Dimension	Features
Company Information	Company overview
Product Information	Product overview, release history, and geographic availability Revenue from product
Functionality	AML Transaction Monitoring detailed functionality Support for currencies, languages, and local conventions
Technology	Code, databases, and operating systems Data model Scalability and technical volume limitations Integration methods, services, and APIs
Deployment	SaaS capabilities Deployment options: On-premise, hosted, private/public cloud Client base by deployment mode
Implementation	Initial installation, staffing, partnerships Change tooling and upgrades
Security and availability	Application security and cybersecurity Disaster recovery features
Commercial terms	Pricing models, factors, and average costs SLA service scope and features
Customer base	AML TM clients by financial vertical and tier size Clients by country Customer references

Source: Celent VendorMatch

The figure below illustrates one of the VendorMatch RFI data collection screens, the primary AML Transaction Monitoring functionality tab. Each solution type has a unique functionality tab, as well as functionality tabs common to all systems we review.

Figure 5: Celent VendorMatch RFI Data Collection (anonymized)

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ANTI-MONEY LAUNDERING TRANSACTION MONITORING DETAILED FUNCTIONALITY

SUITE FUNCTIONALITY c
Do you offer any of the following as part of a full suite to complement the Transaction Monitoring solution?

Onboarding/Customer Due Dilligence

Watchlist Screening

Case management

Reporting

COLUMN 1: FUNCTIONALITY PRODUCTION STATUS
Is the feature/function in production at a client?

COLUMN 2: FUNCTIONALITY AVAILABILITY
How is the feature/function available within the system?

Real-time transaction monitoring for AML	<input type="text"/>	<input type="text"/>
Transaction monitoring method: sampling	<input type="text"/>	<input type="text"/>
Transaction monitoring method: all transactions	<input type="text"/>	<input type="text"/>
Rules engine	<input type="text"/>	<input type="text"/>
Pre-programmed rules/scenarios	<input type="text"/>	<input type="text"/>
Ability to create new detection scenarios	<input type="text"/>	<input type="text"/>
Historical profiling of individual accounts	<input type="text"/>	<input type="text"/>
Historical profiling of peer groups	<input type="text"/>	<input type="text"/>
Link/network analysis	<input type="text"/>	<input type="text"/>
Ability to perform simulations of scenarios and threshold settings in a test environment	<input type="text"/>	<input type="text"/>
Searchable, version controlled rules repository	<input type="text"/>	<input type="text"/>
Analytics	<input type="text"/>	<input type="text"/>
Alert generation based on pre-defined rules	<input type="text"/>	<input type="text"/>
Alert generation based on predictive analytics	<input type="text"/>	<input type="text"/>
Alert generation based on artificial intelligence	<input type="text"/>	<input type="text"/>
Unstructured data analysis: adverse media	<input type="text"/>	<input type="text"/>
Unstructured data analysis: social media	<input type="text"/>	<input type="text"/>
Big data analysis	<input type="text"/>	<input type="text"/>
Data lake support	<input type="text"/>	<input type="text"/>
Unstructured data analysis	<input type="text"/>	<input type="text"/>
External data integration	<input type="text"/>	<input type="text"/>

SURVEY SECTIONS

- GEOGRAPHIC AVAILABILITY INCOMPLETE
- SOLUTION DUE DILIGENCE INCOMPLETE
- ANTI-MONEY LAUNDERING TRANSACTION MONITORING DETAILED FUNCTIONALITY INCOMPLETE**
- STAFFING, TRAINING, AND CLIENT SERVICES INCOMPLETE
- CODE, DATABASES, OPERATING SYSTEMS DETAIL INCOMPLETE
- SAAS CAPABILITY INCOMPLETE
- DATA MODEL INCOMPLETE
- DEPLOYMENT OPTIONS DETAIL INCOMPLETE
- INTEGRATION METHODS, SERVICES AND APIS INCOMPLETE
- USER INTERFACE (UI) AND MOBILE INCOMPLETE
- INTERNATIONALIZATION AND LOCALIZATION INCOMPLETE
- INITIAL INSTALLATION INCOMPLETE
- SCALABILITY AND TECHNICAL VOLUME LIMITATIONS INCOMPLETE
- CHANGE TOOLING AND UPGRADES INCOMPLETE
- COMMERCIAL TERMS INCOMPLETE
- RISK AND COMPLIANCE CLIENT BASE INCOMPLETE
- CLIENT BASE BY COUNTRY INCOMPLETE

Source: Celent VendorMatch

Celent asked about availability and implementation status for each AML TM function, providing the vendors with the response options shown in the table below.

Table 17: RFI Functionality Response Options

Implementation Status	Feature Availability
At least one client in production (2)	Available out of the box (5)
Supported but no live clients in production (1)	Configurable using simple tools targeted for a business user (5)
Not supported (0)	Configurable using tools targeted for an IT user (4)
	Configurable through a scripting language/coding (3)
	Available with integration to a separate module provided by this vendor (2)
	Available with integration to a third party solution (2)
	Under development / On road map (1)
	Could develop—would be considered customization (1)
	Not available / Not applicable (0)

Source: Celent analysis
Weighting given to each response in parentheses.

Demonstration

Each vendor was provided the opportunity to present their transaction monitoring system to Celent analysts. Each followed a scripted agenda that focused on rules/analytics configuration, workflow, usability, functionality for internal users specific to AML operations, and the overall architecture of the system.

Customer Reference Feedback

Celent used an online survey tool to gather feedback from client references provided by each vendor. The survey asked about client views of the solution's business and technology value and assessed the vendor's customer service. The survey also asked each client what it liked best about the vendor and solution they use and solicited suggestions for improvement.

Customer reference feedback is presented in the Vendor Profiles, including a diagram that displays the average ratings given to the vendor in five categories. Each average rating includes up to 13 underlying ratings, as shown in the table below, scored by the customer on a scale of 1 to 5, where 1 means "very poor" and 5 is "excellent." It is advisable to keep in mind that the evaluations and comments may vary according to the specific needs of each reference client.

Table 18: Customer Feedback Survey Items: AML Transaction Monitoring Systems

Category	Ratings Included in the Average
<p>Functionality</p> <p><i>How would you rate the FEATURES you are currently using?</i></p>	<p>False positives reduction</p> <p>Rules and analytics</p> <p>Historical profiling—Individual accounts</p> <p>Historical profiling—Peer groups</p> <p>Network/link analysis</p> <p>Other visualization tools</p> <p>Process automation</p> <p>Artificial intelligence</p> <p>Support for channels/products</p> <p>Currency and language support</p> <p>Audit trail</p>
<p>Technology</p> <p><i>How would you rate the TECHNOLOGY of this AML TM solution in the following areas?</i></p>	<p>Ease of system maintenance</p> <p>Flexibility of the data model</p> <p>Scalability of the solution</p> <p>Vendor's timing in improving technical performance through new releases and fixes</p> <p>Configurability of the solution</p> <p>Overall satisfaction with the technology</p>
<p>Integration</p> <p><i>What has been your experience INTEGRATING this AML TM system with the following?</i></p>	<p>Core processing systems</p> <p>KYC systems</p> <p>Watchlist screening and sanctions systems</p> <p>Third party transaction monitoring systems</p> <p>Third party analytics</p> <p>Internal applications and databases</p> <p>Internal data sources</p> <p>External data sources</p> <p>Reporting systems</p>
<p>Implementation</p> <p><i>Thinking back to when you first IMPLEMENTED this AML TM system, how would you rate this vendor in the following areas?</i></p>	<p>Responsiveness (handling of issue resolution)</p> <p>Project management (estimations, scope creep, etc.)</p> <p>Implementation completed on time</p> <p>Implementation completed on budget</p> <p>Knowledge of your business</p> <p>Knowledge of their solution and relevant technology</p> <p>Continuity with the implementation team—did the core team stay engaged through to implementation</p> <p>Overall project success</p>
<p>Support</p>	<p>Responsiveness (handling of issue resolution)</p> <p>Speed of issue resolution</p> <p>Project management (estimations, scope creep, etc.)</p> <p>Work completed on time</p>

<i>How would you rate this vendor's ongoing POST IMPLEMENTATION support in the following areas?</i>	Work completed on budget
	Knowledge of your business
	Knowledge of their solution and relevant technology
	Communication—proactive communication of issues and changes
	Staff turnover
	Consistently meeting SLAs
	Roadmap delivery
	Customer feature requests heard and responded to
	Overall quality of professional services

Source: Celent

Criteria for ABC Inclusion

Celent's ABC Vendor View analysis is used to highlight vendors that have attained success selling their systems. In order to have a full profile and be included in the ABC Vendor View analysis, an AML transaction monitoring solution had to have:

1. At least one new sale to one new customer within the last 24 months.
2. At least three live customers.
3. Participation by at least two reference customers.

Limitations

Celent believes this study provides valuable insights into current offerings in AML transaction monitoring systems. However, readers are encouraged to consider these results in the following context.

Although we gathered comprehensive RFI responses, viewed system demonstrations for each solution, and conducted a customer reference survey, we could not confirm all the solution details and client base information self-reported by participating vendors. The initial data collection commenced in mid-2022, and the vendors have had the opportunity to update their profile information since that initial outreach.

Additionally:

- Celent's ABC methodology uses a normalized scale. In some cases, this can exaggerate quantitative differences, but its purpose is to make the graph easier to read.
- A vendor's suitability comes down to the needs of the institution compared to the insight offered by this analysis.
- The mix of vendors and platforms includes Celent subscribers and nonsubscribers. We make no distinction between how either is presented, nor does it affect our ratings.

LEVERAGING CELENT'S EXPERTISE

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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