

An interview with David Engebos



The ARGO Fraud solution, OASIS<sup>™</sup> (Optimized Assessment of Suspicious Items), provides cross-channel, multi-fund analytics and adjudication workflow to detect fraudulent transactions and suspicious items.

# Q: ARGO has an impressive customer base in fraud prevention. Can you tell me about your OASIS Fraud solution?

**David Engebos:** "OASIS provides a probabilistic computation process using extensive mathematical and machine learning methods to analyze both images and transactional data to identify potential suspicious items and corresponding risk exposure. The OASIS solution provides a centralized interface for suspect adjudication workflow and enables case management for those items requiring additional research."

# Q: What types of fraud does your solution detect?

**David Engebos:** "Checks remain the subject of more fraud than any other payment method, according to the 2018 Association for Financial Professionals (AFP) Payments Fraud and Control Survey. Financial institutions encounter check fraud in many ways: counterfeits, forgeries, alterations, serial number, stop payment, and check kiting.

Transaction fraud also accounts for a large percentage of fraud perpetrated against financial institutions. Transaction fraud includes deposits, return deposit items (RDIs), remote deposit capture (RDC), new, dormant, and closed accounts, duplicate deposits through ATMs, and holds. debits, ACH account takeovers, unauthorized ACH transactions, account takeovers by ATMs, using checking accounts to withdraw from HELOC or other LOC accounts followed by wire transfers, deposit of items on the transit watch lists, and large or split deposits.

<sup>66</sup>The OASIS solution provides a centralized interface for suspect adjudication workflow and enables case management for those items requiring additional research.<sup>29</sup>

David Engebos, ARGO President & COO



Other items analyzed for fraud include pre-approved

Our solution has the highest accuracy and capability in the industry for detecting check and deposit fraud for counterfeits, alterations, forged-maker signatures, on-us items, and transit items during deposit, as well as kiting and other internal fraud scenarios. It analyzes images of items deposited as well as characteristics of the account, entity, conductor, channel, and so forth. This diagram [*Figure 1*] illustrates the OASIS Fraud solution channel scope."



Figure 1: On-Us and Transit Checks and ACH Processing

## Q: Does your solution include commercial services?

**David Engebos:** "Yes. Self-Authenticated Negotiable Documents (SAND<sup>®</sup>) delivers a comprehensive set of Treasury Management solutions with fraud detection and prevention capabilities for commercial checks and electronic payments. SAND provides account and check validation services for image-based verification and check authentication. SAND Positive Pay solutions combat most check fraud schemes, including invalid MICR lines, forgeries, counterfeiting, and duplications. It provides an integrated suite of positive pay, account reconciliation, teller validation, and remote official check printing applications.

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It expands the capabilities of traditional positive pay software and bridges the gap between electronic and check payments for increased fraud protection. The SAND platform allows for increased automation, on-demand image presentations, alteration detection, and assistance with reconciliation and reporting."

#### Q: Does your fraud solution handle AML?

David Engebos: "It does. OASIS AML enables compliance officers to learn more about customers by providing automated risk analysis at account opening and throughout the customer relationship. The solution provides enhanced due diligence tools to create customer-risk profiles based on customer information, watch-list searches, and analysis of key-risk indicators, mitigate risk and identify high-risk customers through ongoing analysis, and maintain and update client information for continuing due diligence. Using customer information, files are analyzed based on attributes, such as products and services utilized, type of business, or income and address demographics. Further analysis on customer information includes cross-referencing government lists, such as OFAC, along with black lists and white lists maintained by financial institutions or law enforcement agencies. Customers identified as higher-risk are placed on a Customer Monitor List (CML). Criteria for the CML include multiple SAR files, high-crime locations, cash businesses, cash-intensive businesses, or multiple residences. The solution combines these points of analysis into a composite risk-based rating for customers."

#### Q: Which channels are monitored?

**David Engebos:** "OASIS achieves over 95 percent accuracy in detecting counterfeits and other types of check fraud through the in-clearing channel, over the counter through the teller line, mobile/RDC deposit, ATM deposits, and wires."

<sup>66</sup> The solution compares digitized signatures to referenced images, manages multiple signatories on the same account, and monitors items requiring dual signatures to validate check signatures on personal and business accounts.<sup>99</sup>

David Engebos, ARGO President & COO

### Q: What is your functionality related to check fraud?

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**David Engebos:** "I can break that down into three key functional areas:

- Transaction Analysis—Processes debits and credits contained in deposits and withdrawals and identifies suspicious items, such as out-of-range check numbers and check amounts and duplicate check numbers. The solution also applies tests at the account and entity level, measuring such things as account velocity, account volume, and deposits or withdrawals of unusual amounts. This analytical software assigns test scores, which determine whether or not to flag items as being suspicious.
- 2. Check Stock Validation—Analyzes presented check images against historical, referenced check images, validating the consistency and accuracy of check stock. The solution effectively identifies counterfeit in-clearing and over-the-counter checks faster and with increased accuracy and reliability than visual inspections.
- Signature Verification—Uses machine learning 3. algorithms and sophisticated decision trees to provide a detailed analysis of check signatures. This results in efficient evaluation of suspect in-clearing and over-the-counter checks and increased confidence levels for acceptance and return decisions. The solution compares digitized signatures to referenced images, manages multiple signatories on the same account, and monitors items requiring dual signatures to validate check signatures on personal and business accounts. It focuses on dynamic aspects of the signing action, including signature fragments, handwriting trajectories, and geometric analytics. It produces confidence scoring based on these aspects when comparing newly-presented check signatures with previously saved images to determine matching and nonmatching elements."



# Q: You've described the types of fraud you detect. Can you now tell me how your adjudication process works?

**David Engebos:** "OASIS prioritizes suspect items for adjudication into best practice defined queues based on the financial risk exposure from highest to lowest. Fraud analysts review the queues and start adjudication of items in each queue. Actions for adjudicating items include defer, pending, return, and accept *[Figure 2]*."

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### Q: What if a case cannot be immediately adjudicated?

**David Engebos:** "**Case Management** provides a collaborative process for managing fraud investigations for items needing additional research. In OASIS, opening a case specific to a suspicious activity or item provides fraud analysts, supervisors, and administrators with a method for collecting and storing information needed to investigate suspicious account activities. Analysts use information gathered in a case when filing Suspicious Activity Reports (SARs) and Currency Transaction Reports (CTRs) *[Figure 3]*."

Figure 3: Case Management Model



#### Q: Would you describe an example of a suspect item getting flagged for adjudication?

**David Engebos:** "Let's look at counterfeits. The 'on-us' counterfeit queue looks for checks that are not the original check stock, but created to resemble the original check and look authentic. Counterfeit checks are captured by running the check background, check number out of range, signature, and duplicate tests.

The workflow process looks like the Decision Process [*Figure 4*]. As you can see, OASIS Fraud heavily engages predictive and decision analytics to identify a variety of elements that may indicate fraud."

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#### Figure 4: Decision Process



### Q: What KPI management insight and reporting capability does OASIS provide?

**David Engebos:** "The OASIS Fraud solution provides comprehensive Management Insight & Reporting, logging key performance and analytical results to assess risk, monitor adjudication workflow, and ensure operational productivity. The OASIS Management Insight & Reporting functionality enables institutions to gain management insight from the resulting data and reports, which helps managers compare trends, review employee performance, and adhere to goals. Using a broad spectrum of data, the solution allows financial institutions to measure:

- Security and audit activity.
- Analytical process detection results.
- System performance and process efficiency.
- Resource utilization.
- Exception tracking.
- Risk management and exposure.
- Processing statistics and results.
- Fraud loss and prevention.

Management Insight & Reporting takes this data and optimizes it using metrics for analysis and reporting. This data then fuels:

- Online, real-time reporting available directly within the solution.
- Data visualizations to convey critical KPIs and business trends.
- Periodic generated reporting and trend analysis.
- Ad hoc reporting and analytics for in-depth analysis of data.

This expansive amount of data and the insight it provides helps employees, managers, and senior leadership draw conclusions regarding successes and failures. Those conclusions drive organizational change and improvement. Through the OASIS solution, institutions have the ability to drill down into the data to identify the causes of a particular activity or variable such as a specific test result, the underlying decision, and how it compares with the overall fraud detection process. The OASIS reporting functionality also helps managers determine norms such as the number of suspect items originated each day and the number of suspect items returned or approved, and whether this value is staying the same, increasing, or decreasing over time."

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### Q: Why do your customers choose OASIS Fraud?

**David Engebos:** "OASIS is a comprehensive solution that brings these measureable results:

- Eliminating reliance on manual, inconsistent detection processes
- Effectively reducing financial losses
- Decreasing operating expenses
- Minimizing reputational risk
- Identifying a greater number of check alterations, forgeries, counterfeits, out-of-pattern transactions, and kiting activities than traditional solutions
- Increasing the quality of suspects
- Reducing false positives and false negatives
- Reducing negative impact on customer satisfaction"



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