EMA IT & DATA MANAGEMENT RESEARCH, INDUSTRY ANALYSIS & CONSULTING

EMA CASE STUDY

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Automation Intelligence Reduces Job Failure Incidents by 60% for a Top 10 Global Financial Institution

A Critical SLA Breach Demands Attention

Daily liquidity reporting is crucial for commercial banks to manage cash flows, comply with regulations, mitigate risks, make informed decisions, and maintain investor confidence. When overnight processing problems caused frequent delays in delivering these critical reports to management, something had to change.

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The U.S. subsidiary of a top ten global financial services organization (called USGFS for purposes of this case study) supports North American commercial banking operations. Daily liquidity reports were consistently late, with delays of up to six hours, impacting decision-making and regulatory compliance. A dedicated team within technology operations was formed to focus on business outcomes of overnight reporting and investigate the root cause of the reporting delays.

Finding the Root Cause

Utilizing Automation Analytics & Intelligence (AAI) from Broadcom, the team analyzed the processing issues causing delivery problems with liquidity reporting. Their primary goal was to leverage AAI to monitor SLAs effectively to identify and resolve problems causing SLA violations. AAI is a workload automation observability, SLA management, and optimization platform. It provides organizations with the necessary visualization, adaptability, and intelligence to successfully manage complex workloads across multiple scheduling solutions.

The team knew that the liquidity reporting job itself had an SLA that was breached daily. Looking upstream, the team identified over 20 application portfolios representing thousands of predecessor jobs without SLAs. Each of these jobs had to finish within their individual processing windows for the liquidity report job to finish on time. With the trending data available in AAI, problem jobs could be adjusted, and all predecessor jobs became trackable to the SLA for the final liquidity report. After six months of beginning this investigation, liquidity reports were consistently delivered on time every day. Senior management recognized the team's significant achievements and consistent improvements.

Complexity and Change: The Broader Issues

Large enterprises are naturally complex, and that complexity increases over time. The constant evolution of technology, market dynamics, and organizational requirements introduces a level of volatility that can disrupt the smooth flow of operations. Acquisitions bring entirely new operations into the mix with an assortment of new software tools and "best practices" developed elsewhere. A top ten global financial institution certainly lives with these challenges.

USGFS uses Tidal Workload Automation for its workload management. The acquisition of a large U.S. commercial bank added thousands of jobs with CA7 for mainframe workload automation and Autosys for distributed systems. AAI is included with Broadcom's AutoSys, Automic Automation, CA7, and ESP subscriptions. In addition, connectors are available for Control-M mainframe and distributed, IBM Workload Scheduler mainframe and distributed, and Tidal Enterprise Scheduler. Multiple WLA tools means inconsistent reporting and inconsistent tracking of SLAs, resulting in siloed visibility across the organization. Large job streams defined by different teams utilizing different tools result in inconsistent best practices and uneven application of SLAs. For example, one environment had 100 different calendars defined to process 50,000 jobs. The acquired subsidiary bank had 700 calendars defined for 10,000 jobs. An analytics tool like AAI brings consistent reporting capabilities across these disparate environments.

Expanding the Use of AAI

Building on the success of addressing liquidity reporting challenges, technology operations created a Major Incident Reduction program to continue to utilize AAI to improve business outcomes. All jobs were defined and managed within AAI, providing a centralized view for operations. The team implemented analytics to track performance, identify trends in job failures, and determine root causes of issues for the worst-performing 10-20 jobs each quarter. This program led to a 60% reduction in incidents in the first year and continues to reduce incidents by 50% year over year.

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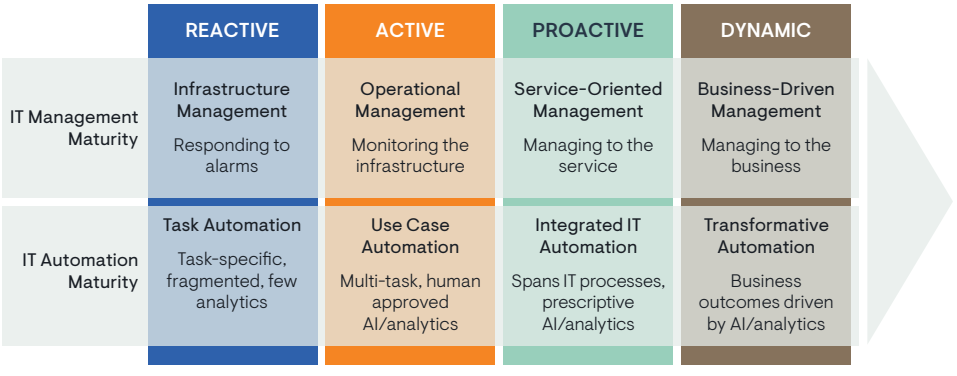
To address the common challenges associated with file transfers and ensure timely completion of reporting jobs, USGFS partnered with the AutoSys team at Broadcom to develop AWS S3 file watchers. These file watchers effectively replaced CloudWatch and EMR functionalities within AWS, allowing for seamless tracking between S3 buckets, with Autosys and AAI monitoring the entire end-to-end process. As part of their ongoing efforts, USGFS is exploring the integration of AAI with managed file transfer (MFT) software to incorporate job data from that tool. This initiative aims to enhance reporting and SLA management for MFT tools similar to the tracking used for WLA tools.

Benefits and Impact

AAI enabled USGFS technology operations to bridge the gap between the technology and business teams by tracking the business outcome rather than the technical process steps. Business Impact Statements were created for critical jobs, so failures are reported to identify the job that failed and define the resulting business impact.

By leveraging AAI and implementing changes driven by its capabilities, USGFS successfully resolved the problem of delayed daily liquidity reporting – but they did not stop there. Instead, they built on their success and expanded their use of AAI to look across their entire workload environment to improve SLA compliance across the operations. With trend reporting in place, technology operations can now guide architects and business process owners when a new SLA is established. Instead of instituting a new SLA based on a defined requirement that may or may not be rooted in reality, a data-driven decision can be made based on actual job performance. USGFS moved up the operations maturity path, going from a state in which they react to a problem to actively addressing the most common problem jobs to proactively making data-driven decisions about new processes.

When asked to self-assess their operations management and automation maturity against the EMA Maturity Model, the Director of Technology Operations placed them mostly at the Active stage prior to deploying AAI, and after using AAI, placed their operations at Proactive.



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Technology operations now produce heat maps for job completions with trouble jobs clearly visible. These reports are monitored for trends, and jobs that consistently trend unfavorably are immediately addressed.

The proactive posture driven by using AAI has benefits beyond the specific problems being investigated. Often, the team will investigate one problem and will find and resolve other issues they weren't specifically investigating. The energy and momentum that have built up around this team are being shared by word of mouth throughout the organization. Business line staff now come to technology operations teams and ask for help looking for and finding upstream issues. This is different than calling to fix a specific problem. Business process owners are proactively asking for help to head off problems before they are critical.

Technology operations teams have also taken a more proactive stance in other, non-scheduling areas. Production applications and batch operations were improved using AAI, but beyond that, the proactive attitude toward finding and resolving problems expanded to network operations center (NOC) and storage issues. The proactive stance AAI inspired has spread across the operation.

"Broadcom's AAI makes us more proactive," said USGFS Director of Technology Operations. "AAI provides end-to-end visibility and reporting that we cannot get independently from each WLA tool we use, and it gives us the ability to effectively manage SLA jobs."

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