

# Transforming Fiscal Year Closeout with Intelligent Automation

by Edwin Keene, CDFM-A, CGPM, and Irfaan Nooruddin

The Defense Counterintelligence and Security Agency (DCSA) is stepping boldly into the future, revolutionizing financial management through cutting-edge intelligent automation. With a vision to streamline processes, boost efficiency, and enhance data integrity, DCSA is reshaping the way financial operations are executed, driving results at the speed of mission.

Thanks to automation, DCSA has achieved unprecedented success during the 2024 fiscal year-end closeout, marking its most efficient close yet. Automated solutions – designed to tackle everything from analyzing unmatched transactions to reconciling open obligations – have proven instrumental in this transformation. In this article, we explore how automation accelerates DCSA's fiscal year closeout and share key strategies to implement similar transformations within your agency.

DCSA, the nation's largest provider of investigative services supporting over 100 federal agencies, has consistently embraced change. Celebrating its fifth anniversary at the start of fiscal year 2025, DCSA's growth reflects a larger transformation. Following the 2019 Executive Order 13869, DCSA unified multiple agencies under its umbrella, bringing together the National Background Investigations Bureau, the Defense Security Service, and the Department of Defense Consolidated Adjudications Facility into one streamlined powerhouse. With this transformation came an unwavering commitment to fiscal responsibility. DCSA's

Office of the Chief Financial Officer (OCFO) has been at the forefront, using automation to accelerate financial cycles, reduce error-prone manual processes, and free up staff to focus on high-value, strategic work. Its functions range from budget planning and execution to compliance, accounting, and financial data and system operations.

In a continued effort to modernize and accelerate the financial business cycle while reducing manual processes susceptible to errors and inefficiencies, OCFO invested in intelligent automation. An automation-focused effort is a crucial component of DCSA's larger financial management transformation team established in 2021. The financial management transformation team optimizes and supports scaled operations in alignment with department-wide strategy and agency-wide guiding priorities. The goal is clear: liberate OCFO staff from mundane tasks and provide them with more time to focus on impactful analytical work — empowering the workforce to work smarter, not harder.



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## The Power of Intelligent Automation

Intelligent automation isn't just a buzzword at DCSA, it's the driving force behind a financial revolution. OCFO designs,

builds, deploys, and maintains automated workflow solutions using robotic process automation, digital process automation, machine learning, and predictive analytics to automate time-consuming tasks that once slowed down progress. Whether it's transferring data between systems, generating alerts, or manipulating spreadsheets, OCFO's intelligent automation capability is designed to quickly and accurately optimize repetitive, manual tasks that often process high volumes of data prone to human error. OCFO develops automated solutions, also known as bots, that run on employees' computers for seamless and coordinated integration with daily work activities.

OCFO's efforts demonstrate that when intelligent automation answers the call, the workforce can become more engaged, productive, and empowered to complete more impactful and complex tasks. Since the latter half of 2022, OCFO developed 28 automated solutions, saving approximately 17,200 resource hours—and rising. To get to this point, OCFO carved a path for automation success via thorough data cleansing in lockstep with strategically mapping out policies, procedures, and technical requirements necessary to grow an automation footprint beyond initial test bots. A secure and sustainable automation framework grants reprieve from time-consuming manual tasks, as the organization itself benefits from minimized errors, optimized resources, and streamlined processes.

As automation becomes increasingly engrained in the business ecosystem, OCFO unlocked dramatic value in one key activity in particular: fiscal year closeout.

## Transforming Year-End Closeouts

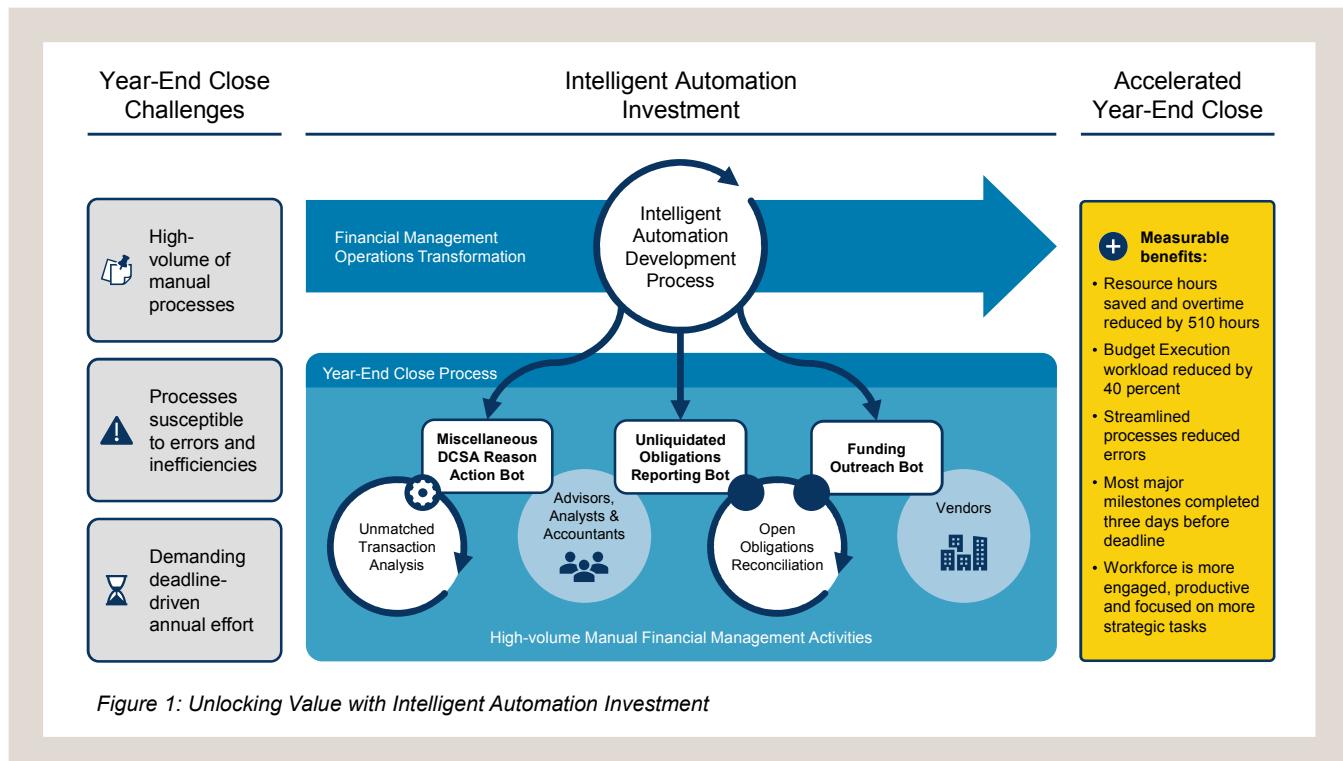
Year-end closeouts are often a source of stress and overtime in financial management offices. OCFO facilitates fiscal year-end analysis of financial data to prepare accurate financial statements, evaluate actual expenditures against budgeted expectations, and inform business decisions. During the fiscal year 2024 close, OCFO harnessed automation to streamline this traditionally tedious process, completing key milestones three days ahead of schedule and slashing the workload by 40 percent. Automation doesn't just speed up the process—it eliminates errors, enhances accuracy, and accelerates decision-making.

*Figure 1* outlines the historical challenges faced each year and how automated solutions reduced manual workload, boosted transaction accuracy, and supercharged the year-end close process. OCFO leveraged three bots in particular, which provided dramatic benefit to support unmatched transaction analysis and open obligations reconciliation.

## Unmatched Transaction Analysis

The Humanless Unmatched Transaction (HUnT) tool is a game-changer in machine learning. Developed by the Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) for use across various government agencies, HUnT examines how past unmatched transactions have been corrected and constructs a machine learning model to propose corrections for future unmatched transactions.

Unmatched transactions are a known issue across the government, as identification and reconciliation can take



analysts weeks, which creates challenges in maintaining accurate financial information. DCSA's team alone spent over 350 hours in one year resolving more than 700 unmatched transactions, at an average rate of around two transactions per hour. HUnT does this in drastically less time, processing thirty transactions per hour.

The HUnT tool identifies why a transaction is unmatched and proposes a correction. Each unique reason for an unmatched transaction requires a distinct corrective action to resolve it. For example, the HUnT tool may identify an incorrect purchase order number (here's the reason), and in response, predict an accurate purchase order number (here's the action). It continually employs machine learning and predictive analytics to home in on other errors, such as undefined lines, insufficient amounts, and travel obligation discrepancies. As data sets grow, HUnT's machine learning training widens and deepens, and accuracy improves. HUnT's training and labeling script has broken down thousands of unmatched transactions by reason-action to accelerate the clearance of unmatched transactions and reduce the time to resolution.

Implementation evolved significantly through coordinated efforts. In August 2023, OCFO held coordinating discussions to bring HUnT to DCSA, working with OUSD(C) and other internal DCSA mission areas. Later that fall, OCFO created the DCSA Databricks cluster necessary for OCFO to run HUnT and finalized the preferred delivery method for HUnT output. In April 2024, OCFO introduced the Miscellaneous DCSA Reason Action Bot to enhance existing HUnT capabilities and streamline the agency's year-end close process. The bot interacts with the HUnT tool to identify DCSA-specific transactions, then communicates with internal DCSA systems to gather additional information and analyze transactions further. This analysis verifies the transactions and ensures accurate charging to the appropriate project code, organization, task, and expenditure type.

The Miscellaneous DCSA Reason Action Bot automates reviewing and matching DCSA-specific transactions to reduce manual intervention and improve overall efficiency of accounting and budget execution functions. It doesn't just resolve errors but builds predictive models to reduce repetitive anomalies in the future. This bot is now part of a suite of automation tools that work together to support the financial management oversight processes within OCFO and ultimately improve auditability.

Both the HUnT tool and the Miscellaneous DCSA Reason Action Bot spurred a cultural shift so that funding, disbursing, and accounting functions better understand the importance of correctly matching unmatched transactions in the financial reporting system, which feeds other DCSA systems.

### **Open Obligations Reconciliation**

Another standout automation tool is the Funding Outreach Bot, which automates funding alerts to customers based on remaining agreement balances. The bot retrieves a report detailing crucial customer funding information, updates

shared documentation, and sends an email to customers with a total funding amount over 60 percent for the current fiscal year. This three-step process – report retrieval, filtering and updating the status document, and generating and sending customer outreach — saves labor hours, but also enables more frequent invoice monitoring. In FY24 alone, the bot sent over 400 emails in FY24 and saved over 450 manpower hours.



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Additionally in the year-end close process, OCFO's accounting team tracks canceling year unliquidated obligations (funds that have been obligated but not invoiced or expensed) for resolution before the end of the fiscal year. OCFO deployed an automated solution in FY24 in response to challenges around OCFO's reliance on manually updated and distributed monthly reports. The Unliquidated Obligations Reporting Bot generates a report and distributes it three times per week, as opposed to the previous monthly distribution. OCFO estimates 600 manpower hours saved annually to cut down on manual data reconciliation.

An increased report delivery cadence – from monthly to multiple times per week – provides advisors with real-time visibility into outstanding unliquidated obligations, enabling prompt and accurate tracking of closures. By delivering reliable updates on the status of outstanding transactions, OCFO can tackle year-end close actions earlier to maintain the integrity of financial accounts and provide a clear picture of available funds.

### **Impacts for the Agency**

Correcting unmatched transactions, sending funding alerts, and identifying canceling year unliquidated obligations are just a few examples of processes that originally relied on manual identification and reconciliation, increasing the possibility of inconsistencies and inaccuracies. Automation

allowed OCFO's workforce to spend less time on highly manual, time-consuming data tasks and focus more on the strategic, complex work that builds from sound and reliable data outputs.

OCFO's implementation of the three automated solutions totaled an investment of roughly 1,000 manpower hours, which were recouped within the same year. For FY24, OCFO successfully reduced the FY24 year-end workload by approximately 40 percent, reduced total overtime by 510 hours, and reduced the FY24 expenditures rates by 15 percent compared against FY23. The closeout of FY24 showed clear progress in improving internal processes. By adopting automation tools, DCSA accomplished a soft year-end closeout 15 hours ahead of time, with major closeout deliverables finished three days ahead of the deadline. These automated solutions bolster larger agency audit priorities, while accelerating and streamlining the closeout process for future fiscal years to come.

### Automation Enablers

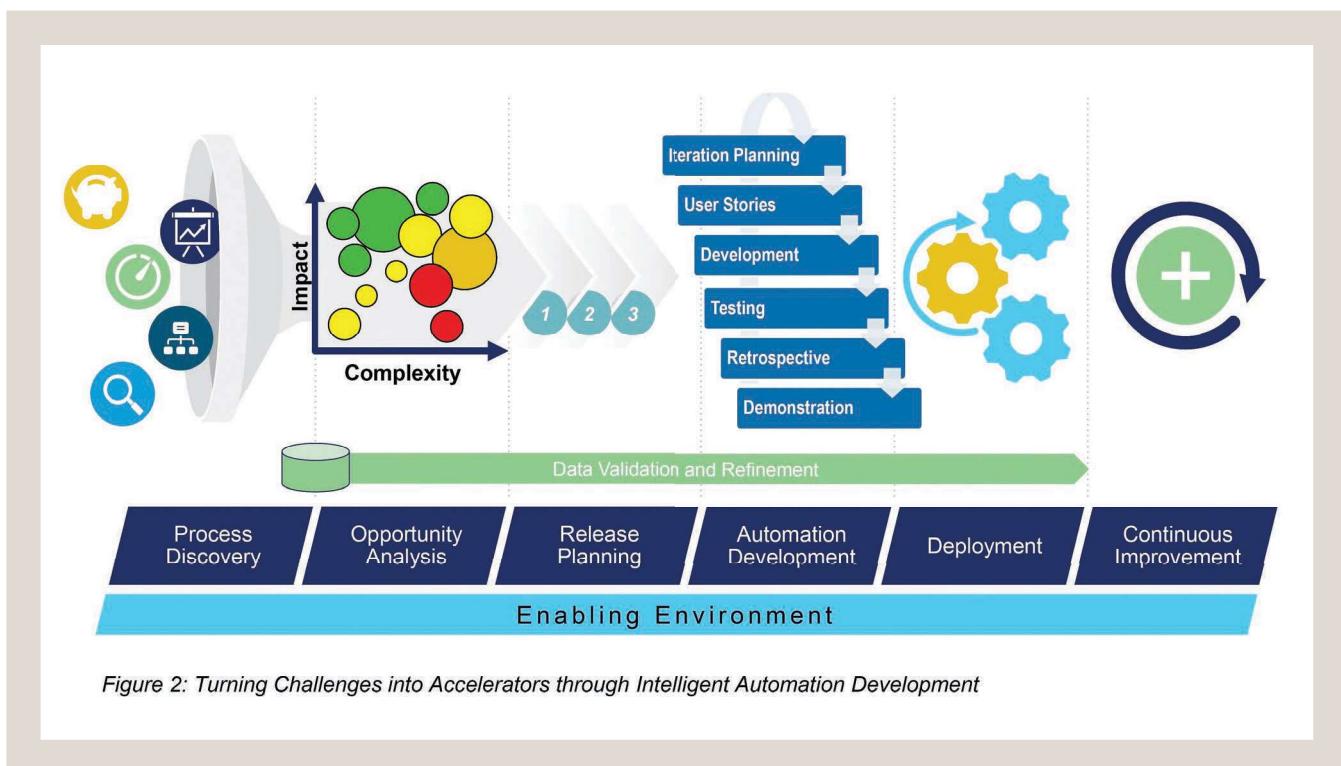
OCFO's intelligent automation capability is becoming increasingly adapted and coordinated to align closely to business needs via various channels, processes, and systems. With a robust pipeline of use cases and case studies, OCFO is working every day toward a more mature, resilient, and sustained automation ecosystem.

To make this alignment happen, OCFO invested time and resources over several months to create an enabling

environment for successful automation — and achieved this improvement by validating and refining data to ensure consistency and high data integrity while continuously encouraging new ideas to improve processes or fill gaps. OCFO's turnaround time from identifying a need to deploying an automated solution is now typically under two months for an average of 330 manhours on each bot. Priming the organization for automation integration and kick-starting its early bots required more lift, but each subsequent bot required less time to develop as each bot iterated on available code.

*Figure 2 outlines the development process, which begins with process discovery. The automation team follows a thorough intake process that leverages a combination of stakeholder interviews, workflow analysis, and data analytics. Through both bottom-up and top-down input, the team gathers in-depth insights into operational inefficiencies and bottlenecks that can affect individuals, teams, or entire divisions.*

The team then conducts opportunity analysis, a phase dedicated to systematically assessing identified tasks for automation potential, considering factors such as volume, frequency, error rate, complexity, and business criticality. The team weighs use case priority along with return on investment to select immediate automation needs on which to focus. Year-end close processes were ideal candidates, with high volumes of data and manual processes critical to business success.





Next, in release planning, the team constructs a detailed vision and defined product. Once leadership provides feedback and approval to proceed to development, the team selects user stories for that sprint and designs, develops, tests, and demonstrates the automation.

Automation is transformative in boosting organizational workload capacity and task standardization to enable more high-value, human-driven, strategic work. Agencies can drastically save time and effort when applying automation to the right processes or tasks. Repetitive, rules-based, error-prone tasks are prime candidates for automation. If the government deployed robotic process automation to shave off 20 hours of workload per civilian employee per year, the gained net capability would surpass three billion dollars.<sup>1</sup>

Bots automate tasks, not jobs, acting much like “digital assistants” to perform more standard and repetitive work, while humans are still required for activities that require discretion, nuanced assessment, and interpretation. Data entry, data reconciliation, data reporting, and spreadsheet manipulation, for example, are prime candidates for robotic process automation. While artificial intelligence is expand-

ing its functionality to incorporate more judgement-related tasks, robotic process automation is not replacing human-driven decision-making, but rather, allowing more bandwidth elsewhere to make it happen.

Post-deployment, OCFO publishes a Process Definition Document (PDD) to capture key business process details and design requirements for the bot, including process diagrams, keystroke mapping, configuration requirements, functional/non-functional requirements, and business rules at the core of the bot’s design and basis for its development. OCFO ensures documentation and other testing artifacts are available as part of an automation knowledge repository, along with ample ways to get in touch with the automation team for questions, training support, or requested enhancements.

Overall, a systematic framework to examine and prioritize automation opportunities is paramount for automation development and maturity. Supported by ample testing stages, iteration, and documentation, OCFO implements automated bots with consistent guiding principles and seamless business integration.

<sup>1</sup> Federal Robotic Process Automation Community of Practice, “RPA Program Playbook,” Digital.gov (2020, January 17), pp. 4.

## Takeaways for Successful Automation

DCSA isn't the first agency to leverage automation; automated financial management services are already used throughout the federal government and Department of Defense to resolve accounting errors and process data for a variety of audit requirements. Still, automation has delivered significant positive impact to the agency's personnel and financial processes.

Other defense agencies can take advantage of intelligent automation by following a similar model as the outline in Figure 2. Begin with assessing current processes and workflows, identifying high-volume and repetitive tasks that are time-sensitive and prone to human error, and evaluating which tasks could significantly benefit the business in terms of cost savings and efficiency. Plan well and test often. Engage in two-way communication to discover opportunities and communicate impacts. Actively listen and stay curious.

For DCSA, intelligent automation has proven to be a key enabler of financial management at the speed of the mission. This capability prioritized resources against

complex challenges and optimized taxpayer dollars through operational transformation. Embracing digital acceleration bolsters efficiency, drives action, and streamlines processes to directly affect agency-wide activities. The result is a more agile, efficient, and effective financial operation that delivers real, measurable benefits.

## Looking Ahead

Intelligent automation is the secret weapon that fueled DCSA's most successful fiscal year closeout to date. Applying these innovative tools allowed the workforce to shift focus toward optimizing the systems environment for sustainably effective financial operations and strong fiscal responsibility.

DCSA's journey with financial management automation is far from over, and the automation team is continually discovering new ways to streamline processes and unlock further value. The aim is to continue expanding automation's reach and impact across DCSA's business environment, optimizing not only fiscal processes but value to the consumers of DCSA's financial management services.



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