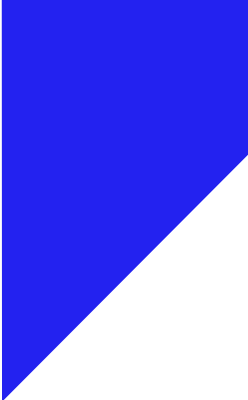


Streamlining Government Procurement with AI-Powered Automation

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The need to modernize the acquisition experience

Federal procurement is under increasing pressure to deliver faster, more strategic outcomes despite complex regulations, growing workloads, and shrinking timelines. As federal missions evolve, acquisition teams are being asked to do more with less: manage ever-expanding data, ensure compliance, reduce risk, and drive value, all while navigating outdated systems and siloed processes.

To meet these demands, agencies are turning to modern acquisition management solutions—especially those that embed AI—to streamline procurement, surface insights faster, and adapt to change in real time. The old model of checklist-driven software selection no longer supports the speed, collaboration, or visibility today's procurement professionals need.

This Guide explores how forward-thinking government organizations are moving beyond legacy commercial-off-the-shelf (COTS) tools and embracing a more agile, intelligent approach to procurement—one that drives better decisions, improves mission outcomes, and meets the moment.



The US Department of War's recent Acquisition Transformation Strategy document indicates that federal government agencies want more flexibility in procurement processes.

The reality is, multiple, disconnected systems won't fulfill acquisition teams' technology needs—and customizing multiple commercial off-the-shelf (COTS) solutions extends implementation timelines and drives up cost.

Government procurement impacts every aspect of the public sector, making the need for modern workflows even more urgent. Teams working on procurement in federal, state, and local governments face several challenges as a result of outdated technology and workflows:



Disorganization and wasted resources

Agencies and programs risk wasting billions of dollars when they cannot accurately plan, track, or manage awards for the goods and services that they need to accomplish their missions.



Delivery delays

With inefficiencies in the acquisition cycle, critical goods and services are delayed.



Tedious, costly tasks

Manual management processes and reliance on a vendor to configure the app to your needs are inefficient and expensive.



Communication difficulties

There is often poor collaboration between contracting organizations and government customers.

Making critical decisions based on outdated systems sets the acquisition process back from the outset. And though modernizing acquisition technology is the right solution, it isn't a linear path—most agencies can't simply remove old technology and implement new solutions to address these challenges. That's why agencies need an acquisition solution built on a complete automation platform

that integrates with existing systems; that way, they can choose to retire legacy systems when they see fit while still benefiting from modern technology.

Let's discuss where procurement teams should begin their journey to modernization.

Getting started with modernizing acquisition processes

Agency IT teams are often short-staffed and overwhelmed, working with a limited budget to support their organizations. IT team budgets are built around legacy solutions, as are their modernization strategies—meaning agencies are currently investing more to “upgrade” their legacy systems which, no matter how “modern,” don’t have a meaningful impact on efficiency, ease of use, or return on maintenance (RoM).

Procurement professionals are plagued by disconnected systems, manual processes, and email communications.

To begin modernizing acquisition solutions, agencies should identify the processes that are:

- Foundational to their workflows
- Rely heavily on manual tasks
- Involve many people and systems
- Have a long list of regulatory requirements.

Then, they should work with procurement leaders and internal IT teams to find a solution that brings together legacy applications and streamlines information and workflows. Automated workflows with AI deliver time savings and more efficient procurement processes across the entire acquisition experience.



More than 50% of government procurement professionals are dissatisfied with their current systems, and more than 40% said their systems make their jobs harder.

Executive Survey: Striving to Make Acquisition Decisions with Confidence and Clarity, Federal News Network, 2023

Modern acquisition solutions streamline procurement with AI

All phases of acquisition—building requirements, solicitation, evaluation, award, and post-award—benefit from technology that unifies legacy systems. Here's how:

Phase I: Requirements

Government acquisition is highly regulated. To get the most out of the requirements stage of acquisition, it's important to identify key needs upfront, well before contracting selects an acquisition path. Without the tools, knowledge, or background to know what's needed, requirements staff base their needs for new procurement on old projects and include unnecessary items while leaving out the essentials.

How a modern acquisition solution helps

A modern COTS solution provides visibility into the requirements management process, allowing both internal customers and contracting professionals to update and execute on requirements from within one application. These intelligent processes offer suggestions and guide users through the requirements development process, helping to eliminate confusion and drive efficiency.

Modern COTS platforms use AI to find requirements information and documents from similar procurements. They also pull data for reuse from other systems to create documents quickly and easily. Visibility into milestones provides complete awareness as documents, correspondence, and critical updates are no longer locked within a single user's account, rendering them unavailable after reassignment.





Acquisition solutions
centralize government-
wide regulations and
agency-specific policies
in a single application.

Phase II: Solicitation

Contracting offices' tools often narrowly focus on creating a solicitation document. They're not helping to shape the acquisition strategy, ensure proper coordination with stakeholders, assist with reviews, or help create required supporting documentation by pulling data from multiple sources. One of the biggest bottlenecks for contracting offices is selecting clauses and provisions.

Most government contracting offices operate with no centralized capability to automatically determine which provisions and clauses should be inserted into solicitations, awards, orders, amendments, and modifications. So, a contracting officer must spend time interpreting clauses when they should be focusing on more strategic work.

This process hinges on individual interpretations of clauses and templates that are specific to different types of purchases, with limited logic maintained within the agency's contract writing systems. These inefficient methods lead to inconsistent application of the provisions and clauses in contract actions, increased contractual risk to the government, and contract actions that are non-compliant.

How a modern acquisition solution helps

Modern, AI-powered acquisition solutions suggest the appropriate set of clauses based on similar procurements and configurable business rules derived from regulations. And they collate selected clauses in an easy-to-audit system to ensure compliance and accuracy and save time in the audit process.

Phase III: Evaluation

Evaluating vendor proposals is a complex and highly structured process, where even small missteps can result in protests or delays. Yet many procurement teams still rely on disconnected, outdated systems, manual processes, and legacy tools are costly to customize and lack modern flexibility. The government spends an inordinate amount of time on source selection, largely due to management overhead and document-heavy processes.

How a modern acquisition solution helps

AI-driven solutions that centralize every activity and decision in a single, secure environment result in faster, more transparent evaluations and better outcomes for your mission.

Sourcing staff can easily ensure government regulations and agency policies are followed. AI-assisted consensus summarizes evaluator feedback, helping teams reach agreement faster. AI-generated documentation ready for human review reduces manual effort while maintaining auditability.

Transparency into the vendor evaluation process allows both evaluators and contracting professionals to update and execute on source selection in a single application. Sourcing staff can easily ensure compliance with government regulations and agency policies.

Phase IV: Award

After vendor selection, the award process begins—and it's rarely simple. Contracting staff must create the contract document, track progress, gather approvals and signatures, and maintain compliance before the vendor can receive the contract. Managing these tasks across numerous systems can be time-consuming and stressful, especially under the tight deadlines needed to get vendors started on time.

How a modern acquisition solution helps

A modern solution centralizes contract data and uses AI-driven analytics to identify and mitigate risks early—whether related to cost, performance, or cybersecurity—so agencies can take proactive action before issues escalate.

Pre-built automations simplify award reporting to core systems such as finance management, invoicing, and government-wide repositories. They also distribute awards to the customer and vendor and streamline collaboration between stakeholders and systems.

No-code integrations let government agencies easily verify vendor status, with verification results automatically stored in the contract file. If the application detects any issues, it immediately notifies the contracting office for resolution. Robotic process automation (RPA) simplifies data retrieval from systems and lack modern web services or APIs, and AI-generated document creation and bulk uploading of contract files streamlines management, auditing, and approvals.



With AI-powered automation, agencies and acquisition teams increase the number of clean audit results. They reduce acquisition and financial non-compliance findings through better adherence to regulations and best practices.

Phase V: Post-award

Agencies and programs risk wasting billions of dollars when they lack the ability to accurately plan, track, and manage awards for the goods and services essential to their missions. Poor planning can lead to missed contract options or bridge contracts, both of which drive up expenses and delay the delivery of critical resources. Manual award management processes compound these challenges, creating inefficiencies and communication gaps between contracting teams and program offices.

How a modern acquisition solution helps

Post-award processes are often document-heavy and difficult to organize.

Modern, AI-driven COTS solutions automate routine post-award activities to save time and reduce errors.

Proactive alerts for key performance periods and funding thresholds help teams stay ahead of deadlines. And built-in compliance features ensure alignment with the FAR and agency-specific policies.

With AI-driven automation and intelligent document processing (IDP) technology to unlock unstructured data, contracting staff can access data more readily and unlock workflows without manual effort. They get an early view into option exercises and contract expiration dates, helping to eliminate expensive bridge contracts or lapses in service. Automatic alerts and notifications ensure that deliverables and activities are completed on time and that immediate action is taken if a workflow is disrupted.

With AI-powered automated workflows, agencies and acquisition teams consistently adhere to regulations and best practices—increasing the number of clean audits. Procurement staff benefit from a guided acquisition experience that demystifies award management, providing real-time visibility into the status of all contracts and simplifying day-to-day tracking and oversight.

A modern platform unites program and contract offices, simplifying collaboration on vendor disputes, novations, changes in scope, option exercises, incremental funding, and contract closeout.

Acquisition solutions with complete automation drive process improvement

For agencies with multiple systems housing mission-critical data, the procurement process can feel like assembling a puzzle where the pieces don't quite fit. Upgrading one solution to improve process efficiencies often fails to address the manual, time-consuming steps that occur before and after its use—it's a temporary fix that doesn't deliver lasting results.

The good news is that modernization doesn't require starting from scratch. A modern COTS acquisition solution unifies existing systems, bringing key information in a single, streamlined view. This eliminates inefficiencies caused by disconnected data and limited visibility into acquisition history.

Rather than replacing legacy tools, it extends their value by connecting data and presenting it in a more meaningful, actionable way.

A modern COTS acquisition solution unifies existing systems, bringing key information in a single, streamlined view.



Modernizing agency technology doesn't require replacing every system or disrupting operations. Low-code provides a flexible path to modernization.

AI-powered acquisition solutions built on a low-code platform enhance the human side of acquisition while automating lower-value, repetitive tasks. High-judgment activities remain with the experts, while AI, RPA, and other automation technologies handle

routine work. This modular approach lets agencies modernize at their own pace—keeping data in multiple systems until they're ready for broader transformation—while still reaping the benefits of integration and process automation.



Driving process improvement with AI-powered automation

By visualizing and monitoring the workflows in an automated platform with process mining capabilities, agencies can pinpoint roadblocks and minimize processing time for procurement approvals. Access to historical data on past applications enables more informed decision-making, improving the likelihood of funding approval while saving time.

Automating routine, low-value tasks lets human workers focus on high-impact, strategic work, helping government organizations operate more efficiently and effectively throughout the procurement process.

COTS solutions exist on a spectrum, with capabilities evolving at different speeds. While traditional COTS solutions offer fixed functionality, AI-powered low-code platforms provide greater flexibility, automation, and adaptability.



With a comprehensive COTS acquisition solution built on a low-code platform and powered by AI, agencies can improve their bottom line and deliver a positive return on maintenance with technology that saves time, costs less to maintain, and gets more done with fewer resources.

To modernize the acquisition experience, agencies should consider a sophisticated platform that automates manual back-end processes and allows them to focus on tasks that have the most impact on the acquisition experience. Look for an AI-powered platform that meets these requirements:



A proven track record of **successful acquisition deployments in the public sector.**



Compliance with security authorizations for faster, easier, and safer software deployments.



Customer case studies



The Appian system replaced 7 legacy systems and standardizes contract writing across the Air Force, improving efficiency, reducing costs, and supporting thousands of users and billions in annual procurement activity.

[Read the Case Study](#)



In the first 10 months, their Appian acquisition system had over 1,000 users and handled 4,420 requirements and more than 112,000 documents.

[Read the Case Study](#)



The cloud-based, end-to-end acquisition system unifies procurement, automates complex workflows, and improves productivity and quality for over 300 contracting personnel.

[Read the Case Study](#)



The centralized database lets more than 10,000 stakeholders easily find procurement information and mine documents with AI.

[Read the Case Study](#)

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