Advancing the Digital Flow of Government Business
Helping the government maximize productivity by quickly, seamlessly, and intuitively connecting people, processes, and information
Government’s Information Management Dilemma

As a government IT leader, you have spent a lot of money on systems to manage millions of documents within your organization. Yet, at a time when the FITARA act\(^1\) asks you for greater accountability, much-needed improvements in information management have not materialized. Your cost of managing and storing an exponentially growing number of paper and electronic records is skyrocketing.

Worse, you still have trouble answering such fundamental questions as: Exactly what information are we storing? At what cost? How fast is the amount of data growing within the organization? Can users easily find the documents they need to do their jobs? How can we securely share data with other agencies? Is personal information on staff and citizens stored safely?

Failure to answer those basic questions to your satisfaction means you have an information management problem that is crippling your organization’s ability to deliver on its mission and to control costs.

Symptoms of your information management problem include over reliance on paper, proliferation of disparate and overly complex solutions that create data silos, lengthy projects that deliver disappointing ROI, incapacity to rapidly adapt to the organization’s changing needs, a demoralized workforce, inability to keep up with citizens’ expectations, a backlog of Freedom of Information Act (FOIA) requests and out-of-control data storage.

Despite millions of dollars spent over the past decade, you still lack solutions capable of truly rationalizing data management, boosting efficiency and slashing costs, securely sharing data internally and with stakeholders, and providing transparency and accountability to citizens or Congress.

In its report published in May 2016, GAO recommends that “agencies address obsolete legacy IT O&M investments.”\(^2\)

**Government’s information management problem in facts and figures**

- Of the $51 billion in planned civilian IT spending in the fiscal 2017 federal budget, 71 percent is dedicated to maintaining so-called legacy IT investments, leaving little room for developing new systems or modernization.\(^3\)
- In 2012, knowledge workers spent 28 hours per week writing emails, searching for information and collaborating.\(^4\)
- Agencies spend 25% of IT budgets on storage. Data is expected to grow 800% over the 2015-2020 period.\(^5\)
- There was a backlog of 102,828 FOIA requests in 2015.\(^6\)
Why Government’s Traditional Approach to Information Management Hasn’t Worked

Every federal agency and local government body shares the same approach to problem solving by using technology: For every problem identified, a new technology is sought and then implemented.

When you need a records management (RM) solution to comply with the NARA/OMB 2016 and 2019 mandates, you buy one. You also require task management software to help with getting work done effectively, so you buy a second tool. Perhaps your agency needs to introduce a new case management solution or retire multiple legacy case management solutions. Therefore, you buy a third solution and maybe even a cloud service. Correspondence management software and grants management software may be next on your list.

Meeting those needs one at a time often results in a patchwork of dozens of technologies that do not communicate with the rest of the enterprise and make your agency more vulnerable to security breaches, particularly when the system becomes outdated because it is too difficult and prohibitively expensive to upgrade and customize—or even operate.

Often, by the time the software requirements have been identified and the solution has been vetted and implemented, many months—or more often, years—have passed. By that time, the problems the software was going to solve have evolved. According to Brig. Gen. Dennis Crall, Chief Information Officer of the Marine Corps, “Because the DoD purchases ‘yesterday’s technology tomorrow,’ the Marine Corps is having problems installing [new software].” GAO’s statement that “federal IT investments too frequently fail or incur cost overruns and schedule slippages while contributing little to mission-related outcomes” concurs with Brig. Gen. Crall’s assessment.
And outdated content management technologies have a serious impact on cybersecurity as well. This year, $19 billion dollars of the federal budget will be spent fighting cybercrime. Yet legacy government content management systems are typically outdated IT solutions with known vulnerabilities.

Testifying on the Office of Personnel Management’s security breach, Director Katherine Archuleta explained that employees’ Social Security numbers stored by OPM were not encrypted because encryption could not be done feasibly with the agency’s antiquated systems.8

Unfortunately, the hack of the OPM databases illustrates the wide-ranging problem of government using legacy systems that run on antiquated operating systems that are hard to update and in many cases difficult or impossible to secure.

Cybersecurity efforts, almost by definition it seems, focus on securing data at the perimeter of the enterprise. Yet a recent article revealed that in 2015, two-thirds of government data breaches were due to accidental data spillage, exposing 21 million identities, compared with the 6 million that were stolen by hackers.

Government has been lulled into a false sense of cybersecurity. The longer a system has been around and not exposed, the more it creates an illusion of security. In reality, the longer a system awaits modernization, the more vulnerable it becomes.

The frustration with the slow progress is shared by the government workforce, for which IT needs to be more agile and responsive in helping solve problems related to mission-critical business processes. And, modifying large commercial off-the-shelf (COTS) best-of-breed solutions not built for managing government processes requires yet another expensive and extensive project, by which time those needs will have changed once again.

Government still relies on paper for the bulk of its interactions with the public and for internal operations. This creates a labor-intensive system, which is hard to scale or make more efficient. Yet over the last decade, society has become digital and mobile, and citizens’ expectations of how to deal with the government have changed. They want more transparency from the government and are demanding that information and services be made as easily available as in the private sector. “More people are accessing everything via mobile technology and apps. They want to pay a bill with two taps on their phone. People are losing patience with governments that are not making services accessible and easy to use,” noted one participant in the “What’s Next in Digital Communications for Local Government” survey.

Additionally, government agencies need to make information readily available for legal reasons. The FOIA mandates that responses to requests for information be timely. Yet it is impossible to respond efficiently with a paper-based system mixed with dozens of compartmentalized IT solutions, a setup that results in labor and time intensive manual searches across disparate systems.

Failure to achieve timeliness opens up the government to punitive measures and damage to its reputation. A recent lawsuit by researcher Ryan Shapiro accused the FBI of using aged computer systems to frustrate FOIA requests. “Not only is the interface archaic, but the way that you search
data, the way you input data, all of those are archaic,” wrote Shapiro in his complaint. In addition to FOIA, the FBI’s own investigation into the September 11 attacks found that “[t]he FBI’s legacy investigative information system, the Automated Case Support (ACS), was not very effective in identifying information or supporting investigations.”

If the government has failed to modernize, it is not due to lack of trying or spending. And yet more money and effort are required to keep legacy systems going, leaving little room for transformation.

**Total Federal IT Spending by Type (in billions)**

![Total Federal IT Spending Chart](chart.png)

Fortunately, modern, open-standard-based, flexible solution platforms are available to improve government agility, cut costs, and answer the government’s multifaceted information management problem.

**Taking Control: Seamlessly Integrating Your Information Management Solutions in Your Enterprise Portfolio**

The first step to solving your information management problem is to remove the inefficient systems that prevent data from circulating across your agency’s information system. Open-standards-compliant enterprise content management can natively communicate with vertical solutions (task management, case management, grant management, correspondence management, etc.). This means that if a piece of information created by one component of the system—including SAP, SharePoint, Salesforce, Dynamics, and Box—is needed elsewhere, it can be easily retrieved and used. Open standards also allow select information to be shared with other agencies or outside partners.

With inefficiencies removed, all your agency’s information can be managed in a collaborative way across internal departments. The advantages of this approach are many: It eliminates the duplication of data (a requirement of RM); allows advanced cross-searches on all types of content (documents, email, videos, social media); cuts costs on storage, hardware, licenses, and maintenance; reduces errors through unity of data and versioning; allows fast responses to FOIA requests; enables collaboration around documents; boosts efficiency; and supports a mobile workforce with finding information in context on the go.
Eighty percent of the data stored by an organization is never used.\textsuperscript{11} Centralizing the information means storage can be optimized so that the 20 percent of data that is in constant use is easily and rapidly retrieved inside the context of a business process. For example, running the business process for a work order issues the documentation related to the associated building project. It means delivering the right content to the right person at the right time, integrated with the systems used by that person to do their work.

Ovum analyst Tom Pringle concluded, “Enterprise Content Management (ECM) is too often overlooked as part of the broader information management market; most often it is considered a regulatory headache as opposed to a business opportunity.” \textsuperscript{12}

\textbf{The White House’s “Digital Government: Building a 21st-Century Platform to Better Serve the American People”}\textsuperscript{13} stresses the need for solutions that are information-centric and open-standard compliant: “The Federal Government must fundamentally shift how it thinks about digital information. Rather than thinking primarily about the final presentation—publishing web pages, mobile applications or brochures—an information-centric approach focuses on ensuring our data and content are accurate, available, and secure…. [T]he information-centric approach ensures all agencies follow the same ‘rules of the road’ by using open standards…. If done right, the information-centric approach will add reach and value to government services by helping to surface the best information and making it widely available through a variety of useful formats.”

\textbf{Doing (Much) More with Less: Integrating ECM, BPM and RM}

The same open architecture also allows enterprise content management to seamlessly integrate with business process management (BPM) and RM. Adding BPM and RM is essential to modernizing your system, because a process is associated with every document (creation, validation, versioning, transmission to a business application, archiving, or destruction) and every processed document could become a temporary or permanent record.

\textbf{Business Process Management}

BPM automates manual, repetitive, or complex processes to reduce errors and maximize efficiency. At the beginning of a document’s life cycle, data is captured via web forms or OCR solutions. The document is then incorporated into the system via business processes, where information can then be extracted and put into context to make it usable. A workflow ensures the document moves from each stage of its life cycle to the next, following preset rules. At the end of the cycle, the rules also determine whether the document is archived, classified, or destroyed.
The benefits of BPM are many: It automates low-value manual tasks, increases job performance and satisfaction, boosts efficiency and productivity, reduces staffing needs and associated costs, and enables the government to meet its deadlines.

Furthermore, the government never stops evolving. Leadership rotates every two or three years; new bills become law. BPM quickly accommodates those changes through drag-and-drop adjustment of business processes, which automatically reroutes work based on the new procedures. Unlike unwieldy, cumbersome COTS or custom-code solutions, BPM allows government agencies to be flexible and responsive.

By making transparent the business processes that were previously opaque, the government can provide greater visibility to constituents or to Congress. For example, it would be easy to know how many contracts were processed, how many were approved or rejected (and by whom), how long it took to process the contracts, and where the bottlenecks were. Insight into data also increases its value by improving decision making.

The market for BPM software and related services is growing at 15 to 35 percent a year according to analysts’ forecasts. This growth is driven largely by the fact that the technology is maturing and there are numerous end-user case studies that validate that BPM works.14

**How To Use BPM in Government**
Departments and agencies can use BPM for a number of process-centric demands:
- streamlining operations by automating manual, repetitive processes;
- increasing efficiency and productivity of operations;
- using existing systems and data to provide Web-enabled solutions;
- improving cross-agency, citizen and employee services via online access;
- complying with legislative mandates to improve citizen access and reduce complexity; and
- tracking and managing correspondence to ensure action within mandated time frames.

**Records Management**
RM is an essential component of compliant government data management; it cannot be an afterthought. An RM system must integrate with any solution that generates records as the result of a process—such as Exchange, SharePoint, FileShares, Appian, Salesforce, ServiceNow, Pegasystems, and more—to tag and store those records. The RM system can then automate the secure collection, retention, and disposition of all temporary and permanent records. Staff no longer need to manually extract content and guess what must be kept as records. This approach eliminates human errors and enables the government to perform compliance audits, legal holds, FOIA automation, and rapid e-discovery, and to comply with mandates such as NARA/OMB 2016 and 2019.
Integrated ECM, BPM and RM

Individually, BPM and RM bring valuable capabilities to the enterprise architecture. Seamlessly integrated with ECM, however, they offer a powerful platform capable of delivering solutions that solve all your information management challenges. Combined ECM, BPM, and RM offer all the capabilities you need to replace the disparate individual information management applications that make up your IT portfolio.

Best of all, modernizing your legacy applications can be done iteratively by utilizing agile development methodology: The new breed of solution platform integrates with existing solutions, which are progressively modernized and replaced with each iteration. Such an agile and modular approach is far more sustainable and less risky than moving to a completely new solution in one gigantic step.

The convergence of open source ECM, BPM, and RM in a single platform allows you to meet your information management requirements at a much lower cost by reducing spending on licenses, infrastructure, and maintenance. It also means that only one solution has to be vetted, streamlining the materials and services acquisition processes. It reduces your reliance on outside contractors and provides you with greater agility and flexibility to adapt to your agency’s evolving needs as follows:

- **Reduce Complexity** – Open source and open standards simplify integration, speed up deployment and guarantee flexibility for the future.

- **Improve Adoption** – Support for dynamic, collaborative and mobile processes means staff are able to work within the system rather than around it.

- **Increase Control** – Automated, rules-based records management is easy to set up, meaning you can consistently apply information governance policies.

- **Move to the Cloud** – The Data Center Optimization Initiative requires agencies to transition to a more efficient infrastructure, such as cloud services. A modern solution platform offers the choice between private, public and hybrid cloud. The latter synchronizes content across on-premises and cloud repositories.
Case Study: Department of the Navy Tasking Records and Consolidated Knowledge Repository (DON TRACKER)

The Department of the Navy (DON) was using 22 different task and records management systems and processes, including five large-scale standalone IT solutions. This resulted in a multitude of costly inefficiencies and challenges, including:

- Task assignment and routing that required time-consuming, offline coordination, circuitous email and attachment routing, and unproductive “handoffs.”
- Tasks that passed between commands required manual reentry because systems were not integrated.
- Five separate task creation processes with 139 supporting steps
- Personnel that were often unsure how to properly categorize and legally manage their command’s records as current RM
- Applications (RMA) that were not integrated with tasking systems

The DON’s need to reduce costs and increase operational efficiency necessitated finding a unified and scalable solution. The new system, DON TRACKER, is a single, web-based solution comprising enterprise information services, common business rules and processes, consistent task and record terminology, user training aids, and Common Access Card authentication.

Built on Alfresco and delivered by Progeny, TRACKER is an enterprise task management solution that delivers a single, easy-to-use system that manages tasks and all the content, records, and processes associated with them. It gives leaders and personnel enterprise-wide visibility and transparency throughout the task life cycle.

By modernizing and consolidating on DON TRACKER, the DON will be able to cost effectively manage and use petabytes of information and save tens of millions of dollars in storage costs alone. Since DON TRACKER’s deployment in March 2016, the DON has already experienced a 57 percent increase in tasking process efficiency.
DON TRACKER’s capabilities include:

- **Document Management** – Create, organize, store, retrieve, and share electronic content/documents; role-based access, system administration, and library services.

- **Records Management** – Provide life cycle RM capability through creation, maintenance, use, and disposition in accordance with law, policy, and regulation. Provide continuity of content in the event of a disruption of operations.

- **Search** – Access specific items, including taskers, documents, and records. Search across the enterprise for (discovering) topics and information.

- **Task Management and Workflow** – Prepare, assign, assemble, and distribute taskers via electronic workflow templates and forms. Task within and across organizations. Monitor, manage, and track taskers to completion. Lookup/assign Standard Subject Identification Codes and other selectable attributes and parameters.

- **Reporting** – Produce pre-defined reports, reports with flexible attributes, and custom reports. Enable multiple report levels, tasker completion metrics, and content audits, among others.

Government Internal Category Winner:

“DON TRACKER is truly a Game Changing Capability for Us”
- Sea Warrior Program Office

Key end user benefits of DON TRACKER include:

- Web-based capability with automation of task, records, and document management processes

- SharePoint-like “drag and drop” usability, but without the SharePoint server constraints

- Central repository for electronic RM, security, e-discovery, and audit

- Enable field-level personnel to easily assign retention schedules via intuitive menu navigation

- System handles data security (e.g., PII); permissions and access controls are assigned as role based
Conclusion: New-Generation Government Information Management

While some government agencies have addressed their information management challenges effectively, the majority are still vastly overspending on inflexible systems. The government can do much more with less by replacing its patchwork of applications with an open solution that combines ECM, BPM, and RM. The results include seamless handling of all the information systems’ contents, processes, and records; the opportunity to leverage low-cost cloud infrastructures; and greater transparency and accountability to citizens, Congress, and the administration. Improved information governance also allows you to deliver better service to constituents and to meet current and future mandates.

A combined new-generation ECM, BPM, and RM approach helps you phase out paper-based practices and streamline business processes. It leads to fewer errors, greater efficiency, and collaboration and information sharing between agencies. It is a highly flexible solution that facilitates user adoption and productivity because it can be adapted to the specific needs of your agency and tailored to your staff’s work style.

Achieve IT and Digital Modernization Today, Tomorrow, and Beyond

Alfresco helps agencies advance the flow of digital business. Our technology enables a state of maximum productivity by quickly, seamlessly, and intuitively connecting people, processes, and information.

Alfresco delivers business and mission-critical solutions on an open, integrated platform that combines the capabilities and functionalities of content management, process management, and DoD-5015.02-compliant RM. With Alfresco, the government can harness the power of digitization, automation, cloud, and open source technologies to meet program needs in key solution areas:

- Compliant Records Management
- Task Management
- Case Management
- Digital Asset Management
- Grants Management
- FOIA Management
- Correspondence Management
- Data Management
- Workflow Management
- Email Management
Alfresco eliminates the need to purchase and support multiple solutions and technologies, saving organizations millions of dollars. Agencies at all tiers of government use Alfresco to modernize operations, work smarter and more collaboratively, and achieve breakthrough efficiency.

**The Alfresco Platform Enables Agencies to:**

- Modernize IT Systems
- Improve Citizen Services
- Increase Efficiency
- Reduce Costs
- Securely Govern Information
- Enable Informed Decisions

Using the Alfresco platform, the government can create intelligence and deliver value for employees and citizens. It can eliminate the burdens of legacy technology systems and achieve the highest levels of security and compliance standards.
Alfresco Features:

- **Agility and Scalability**: Leverages open standards, cloud economics, elasticity, and flexibility to scale applications throughout your organization and change easily as your requirements change.

- **Automation**: Automates and tracks workflows, assignments, routing, collaboration, and response management while providing appropriate process transparency and security.

- **Compliance**: Helps agencies meet global standards for RM, including NARA/OMB 2016 and 2019, and is the only open source solution certified to the DoD 5015.02 standard.

- **Consolidation and Modernization**: Saves tens of millions of dollars by consolidating multiple solutions into a single, agile, scalable platform built on open standards.

- **Cost Savings**: Lowers total cost of ownership by managing petabytes at a lower cost, with multiple infrastructure deployment options.

- **Digital Content Management**: Supports collaboration, image management, rich media, web content services, mobile and email management, and document management—with all content easily accessible and searchable.

- **Integrated Information Management**: Acts as an information hub by integrating with other systems using open standards.

- **Ease of Use**: Is implemented and mastered easily by team members across the organization.

- **End-to-End Management**: Ensures continuity and meets the highest levels of SLAs with end-to-end management of data and content and authorized access to data and content at any point.

- **Extensibility**: Connects and integrates with your existing legacy systems (cloud, on-premises, and hybrid) to create a unified, high-performance solution on a single platform.

- **Hybrid Cloud**: Provides a path for migration to the cloud on your schedule and terms.

- **Open Source, Open Standards**: Complies with the U.S. federal government’s Open Source First initiative, eliminates vendor lock-in, and easily integrates with existing enterprise technologies and solutions.

- **Security**: Encrypts content at rest and in transit; includes enhanced security features such as designated RM roles for workers and classification of records.

- **Solutions Your Way**: Offers a flexible and cost-effective tasking platform that fits the specific needs of agencies and organizations.

Alfresco delivers a complete enterprise-wide solution, saving government customers tens of millions of dollars.

To find out how Alfresco can help you advance the flow of digital business to deliver on your mission and slash costs, go to alfresco.com.