

Solutions for State and Local Government



Roadmap to Effective eGovernment

A practical strategy for transforming paper processes into connected government.



State and local governments today face a host of conflicting pressures. Declining revenues are forcing agencies to contain expenses, yet demands from citizens, businesses, political officials, and regulators continue to escalate. The notion of “do more with less” has been tried, and while it has achieved some results, government organizations have reached a point where they now need to do some things “differently.” The solution to this seemingly impossible situation is a concept called connected government.

So what is connected government? Essentially it’s a set of interwoven technologies and processes that enables state and local government agencies to respond to growing cost pressures and spiraling service demands by exploiting the power of managing digital information, and doing so in a collaborative environment.

Connected government agencies collect, store, share, and retrieve information electronically. Paper is largely eliminated—and what remains is quickly digitized and indexed. Internal workflows are streamlined and automated, ensuring that proper procedures are followed and that timelines are met. Citizens and businesses interact with connected government agencies electronically via secure portals. Connected government agencies safely and appropriately share information among departments and with other agencies. And they use information dashboards to give managers better insight into internal operations and to give citizens better visibility into government effectiveness.

Why You Need to Connect

The impact of connected government is transformational and far reaching. Connected government agencies can reduce expenses, minimize risk, and eliminate inefficiency in handling huge volumes of physical documents. They no longer need costly real estate for storing mountains of paper files, and they can comply quickly and reliably with legal reporting and regulatory mandates.

But as state and local governments transition from paper processing to digital content management, they don’t just get more efficient, they get better. Staff at connected government agencies quickly access vital information and collaborate with their peers. They can access single views of citizens and businesses that span multiple programs and organizations. These capabilities produce fundamental benefits, like better outcomes for social services, more accurate revenue collection, more effective public safety, and many others.

Connected government agencies also meet citizen expectations for speed, convenience, and government transparency. They allow citizens and businesses to conduct a wide range of government transactions via secure web portals, and because the information is digital and many routine workflows are automated, government transactions happen as quickly and accurately as purchases from popular online retailers.

How You Get There

“At every level of government, innovation is not just ‘nice to have,’ it’s about being able to provide a sustainable infrastructure for social, economic, and secure governance,” said EMC Corporation’s Jennifer Axt, Vice President of State and Local Government. “State and local government officials understand it is fiscally and operationally impossible to continue using paper-intensive information structures, manual processes, and siloed and insecure data repositories. Connected government is closer and more readily achievable than you may think. The **EMC Connected Government Model** offers a roadmap for transforming siloed, manual, paper-based processes, while delivering value at every stage.”

The EMC Connected Government Model provides a proven and practical path for achieving these critical innovations:

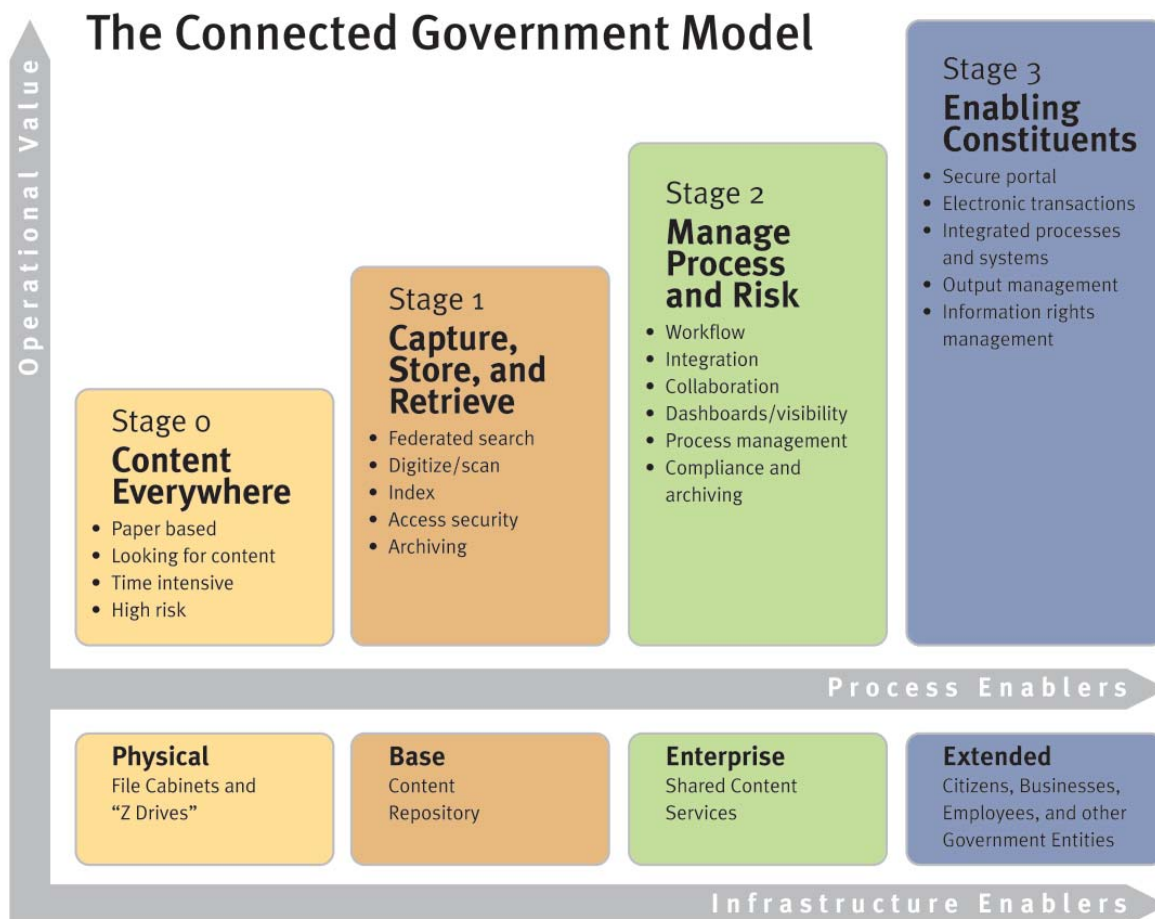
Stage 0: Content Everywhere—examines the challenges and exposures of operating in a paper-intensive environment. We’ll look at typical information infrastructures, the growing cost and risk of conducting “business as usual,” and some key drivers for change.

Stage 1: Capture, Store, and Retrieve—explains the initial step in the journey—replacing paper documents with digital information. We’ll present the business benefits and strategies for deploying digital capture, store, and retrieve capabilities that form the foundation for connected government.

Stage 2: Manage Process and Risk—shows how agencies can further strengthen operational efficiency and mitigate risk by deploying business process management (BPM) and enterprise content management (ECM) technologies. These solutions automate routine work processes and enable internal data sharing and collaboration—all of which lead to increased productivity, lower cost, and better customer service.

Stage 3: Enabling Constituents—reveals how agencies gain maximum value from their information infrastructure investments by extending those infrastructures to citizens, businesses, employees, and other government entities. We’ll look at how state and local agencies can effectively and securely deploy high-value online interaction and transactions for constituents.

EMC has used these strategies and solutions to help hundreds of agencies in state, local, and federal governments improve service delivery, cut time and expense, and reduce risk. This roadmap helps depict the process of creating effective e-government in a logical, manageable, and cost-effective way.



Stage 0: Content Everywhere

Eliminating paper and processes

The High Cost of Managing Paper

Government's reliance on paper is simply unsustainable from a financial and environmental standpoint. Deteriorating economic conditions demand that agencies drive cost from expensive paper-based processes. At the same time, growing attention for "going green" discourages the use of pre-printed forms and other wasteful practices. How much does paper cost your organization? Here are some examples:

- \$20 in labor cost to file a document
- \$120 in labor cost to find a misfiled document
- 7.5 percent of paper documents get lost; 3 percent are misfiled
- 1 paper document is photocopied an average of 19 times

In today's rapidly changing and fiscally challenging environment, paper is the enemy of efficient and responsive government. As agency workloads increase and tasks become more complex, paper-based business processes become roadblocks to effective government.

- Paper files, hard-copy mail, and fax correspondence must be filed and managed by hand, and critical information from these documents often is manually entered into electronic systems. These processes are slow, labor-intensive, expensive, and susceptible to loss and error.
- Physical files often must be shipped between offices when they're needed at remote locations. Many times, these files reside at third-party storage facilities due to the need for massive amounts of storage space. Each time a file is moved adds more delay and expense to the process.
- Manual filing and management processes make it hard to associate paper documents with actual cases, reducing the effectiveness of critical state and local government programs like public safety and social services.
- Searching through thousands or millions of paper records to satisfy Freedom of Information Act or legal discovery requests can take weeks or months. The struggle to locate physical documents doesn't just chew up staff time and resources, it is also risky and exposes agencies to expensive fines and non-compliance.

Do these challenges sound familiar? If they do, you're at Stage 0—and you're not alone.

"Almost everyone still has lots of paper in file folders, and those file folders usually aren't where people need them," said Bethann Pepoli, former deputy and acting CIO for the Commonwealth of Massachusetts and current EMC State and Local Government Chief Technology Officer. "So government employees fill out forms to request that files be sent to their location, and a courier brings them to them. It's slow and expensive. And important information can get lost or damaged along the way."

Drivers for Change

Declining revenue and growing caseloads: State and local governments across the nation already feel the sting of a historic economic downturn, and that pain likely will worsen throughout 2009-2010. An annual *Fiscal Survey of the States*, released in December 2008 by the National Governors Association and the National Association of State Budget Officers, predicts steep revenue declines over the next several years as sales tax and capital gains tax revenues plummet. At the same time, the report noted that the slow economy will drive more citizens into government benefit programs like unemployment insurance, Medicaid, and welfare.

The price of doing business as usual: For government agencies straining under these conditions, paper is simply too expensive. Processing manual or paper records is costly, and storing mountains of physical files isn't cheap either, regardless of whether you store them in your own facilities or contract with a third-party service. And the costs really add up when you need to locate information. Meanwhile, increased regulatory requirements have created new standards for protecting the confidentiality of sensitive information—and agencies may face stiff liability for violating them.

Pressure to meet constituent expectations: Citizens and businesses are accustomed to conducting many daily activities online. Web-based retailers offer quick transactions and next-day shipping for a huge array of products. Financial institutions provide electronic stock purchases, account inquiries, and fund transfers with a few mouse-clicks. Shipping companies let you track the status of deliveries in near real time via the Internet. And Google sets the standard for accessing information. None of these capabilities are particularly new, and average citizens have used them for several years. Now taxpayers expect the same level of service from their state and local agencies.

Agencies mired in paper-based processes simply can't meet these standards. Paper transactions can't move at Internet speeds—even if governments could afford them. Connected government—digitizing information and implementing solutions that manage content and automate workflows—is the answer for coping with escalating budget pressures and rising citizen expectations. Stage 1 shows you how to get started.



Stage 0 Content Everywhere

Objective
Processing workload

Challenge

- Difficult to associate files with cases
- Long search times, lost documents
- High cost of real estate for paper storage

Processes

- Inbound correspondence management: paper, mail, fax
- Manual data entry, indexing, and file management
- Box management and security

Minimal Infrastructure

- Data entry
- Interoffice mail
- Filing cabinets
- Box management
- Storage
- Outsourced records management

Stage 1: Capture, Store, and Retrieve

Implementing a digital content repository

Case Study:

Turning Data into Dollars

A large county assessor's office in California struggled to manage growing paperwork. The agency processes approximately one million documents annually, including six million pages in appraisals alone. Document imaging, indexing, and retrieval solutions enabled the office to control processing costs, generate new revenue sources, and improve citizen access to vital public records.

- Digitized information is now sold to subscribers on CD.
- Information is available across multiple counties, eliminating copy, fax, and shipping costs.
- Provides disaster recovery and continuity of operations.
- Saves time and money.

The goal of Stage 1 is to replace physical file cabinets with a digital content repository—a relatively straightforward technology deployment that delivers immediate benefits. In this section, we'll examine the capabilities you need, the benefits you can expect, and some considerations for the future as you build the foundation for connected government.

Digital Content in a Secure, Electronic File Cabinet

Capture: A typical government agency receives a blizzard of paper forms and correspondence. It needs a capture solution that automatically validates incoming documents against existing records. Although focused on eliminating paper, agencies also receive plenty of e-mail, XML data, and other electronic content, and an effective solution must capture this data as well and filter out irrelevant material.

Store: Once electronic information is captured, it needs to be stored and secured for easy access. Unlike physical file cabinets or even local computer hard drives, this central information resource should be available electronically to any user in a department or agency that has the proper access rights. An effective storage solution also needs solid content management functions that automate document retention policies, ensuring that agencies comply with legal requirements. In addition, the solution must include security controls that protect the confidentiality of citizen information and the integrity of public records.

Retrieve: Of course, once digital content is captured and stored, it must be retrievable quickly, accurately, and efficiently. Agency work forces need on-demand access to comprehensive digital information to manage programs effectively and meet rising customer service expectations. Employees should be able to search for and view any electronic documents from any workstation with Internet access.

Return on Investment

The impact of digital content on government agencies can be significant. The Australian federal government boosted overall efficiency by 10 to 15 percent by digitizing paper-based filing systems, according to IDC. Those gains came from substantial reductions in the amount of time needed to access and process documents. In the United States, the human services department for one Midwestern state used electronic document capture, indexing, and retrieval to slash information access time. The improvements freed up an average of four hours a day for staff members, allowing them to concentrate on higher value tasks.

Ultimately these improvements let governments reduce operating costs, and they equip agencies to handle growing workloads without increasing staff. And because digital-based processes happen more quickly and accurately, citizens and businesses experience better and faster government services, along with stronger security and privacy protections.



Building a Strong Foundation

Work done in Stage 1 can deliver immediate benefits as part of building more sophisticated connected government capabilities. So it pays to consider the future as you deploy capture, store, and retrieve solutions. Here are some factors to keep in mind:

- **Plan for rapid growth of digital content:** Now is the time to develop a storage strategy that provides adequate digital content capacity and allows for easy expansion in the future.
- **Decide what to digitize:** Once you deploy Stage 1 capabilities, your agency will begin to capture most new information electronically. But you'll need to decide how much of your existing paper records to digitize. Converting all of it probably isn't practical, but some data—like birth certificates, drivers' licenses, or property records—may be valuable in electronic format, especially as you move forward.
- **Prepare for process automation:** Your digital capture solution must be able to extract and classify much more sophisticated content if you ultimately intend to automate processes and workflows. Make sure the digital content technology you deploy now can support your future content management and business process management goals. Scalability will be “business critical.”

With these Stage 1 building blocks in place, you're ready to move to Stage 2, where automation and collaboration will drive even greater efficiency and service gains.

Stage 1 Capture, Store, and Retrieve

Objective

Basic content control and access

Challenge

- Lack of automation
- Limited visibility and management of processes

Processes

- Tag content/index
- Complete forms and image
- Associate files with case
- Conduct quality review
- Store and/or dispose content

Benefits

- Faster access
- Repurpose content
- Document security
- Reduced real estate, copying, and postage costs
- Mitigate risk
- Improve customer service

Base Infrastructure

- Local and federated search
- Basic content management
- Basic content storage
- Basic access security
- Data deduplication

Stage 2: Manage Process and Risk

Provisioning for shared services

Case Study:

Controlling Cost and Risk

A state human services agency in the Midwest grappled with complex paper case files for nearly 30,000 child-support cases. Each file averaged 50 pages, including driver's license data, DNA tests, police reports, and other information. The administration of the paper files was costly, the documents were prone to loss, and the agency was running out of storage space. Document imaging and case management solutions were the answer.

- Attorneys, judges, and case workers have access to complete and accurate information.
- Staff time is reduced by four hours per day, allowing time to do other work.
- Significant savings are realized in storage, printing, and shipping costs.

Stage 2 creates the “back-office” content management infrastructure needed to improve productivity and customer service by leveraging virtual case files for collaborative case management. This work delivers immediate benefits, and it forms a critical foundation for Stage 3 “front-office” transactions. Indeed, the failure of earlier e-government initiatives often stemmed from trying to implement Stage 3 citizen-to-government electronic transactions without the content-management infrastructure to support them.

Stage 2 also implements enterprise content management strategies that promote information sharing and collaboration among government departments and programs. The combined result of these improvements is what IDC defines as “collaborative case management.” Collaboration is the key feature of case management because to respond to strategic end-user needs, all appropriate structured and unstructured data, resources, and competencies must come together across government offices and external stakeholders. The value of collaborative case management is in the simplification, streamlining, and automation of complex information workflows that have historically impeded the effective delivery of services.

Simply put, Stage 2 gives state and local government agencies the capabilities they need to become more efficient, responsive, and accountable. For organizations struggling with high costs, customer service complaints, and difficulty integrating information, Stage 2 offers a proven path toward improvement.

The Way Forward

If collaboration is a goal, how do you get there? Answer: implementing business process management (BPM) as a fundamental step. BPM deployments typically involve three stages:

- **Process Configuration and Simulation:** Agencies can gain insight into their options by working with partners who deliver process-specific blueprints and configurable out-of-the-box software solutions. These blueprints typically cover common government tasks like eligibility or benefits processing. Powerful simulation tools allow agencies to review each process, simulate performance, make necessary improvements, and build the business case—all before the processes are actually deployed.
- **Benefits Testing and Tuning:** In this stage you actually deploy, train, and operate the automated solution in a limited scope. This limited deployment lets you monitor the time, cost, and quality outcomes against your estimates in the prior step and against your current manual processes. The data and experience produced by this stage will further refine the business case for automation, as well as lessons learned that will shape broader-based training based on proven success.
- **Enterprise Deployment and Benefits Realization:** Based on the success of deploying the solution in a single location, you are now in a position to systematically implement the new process across the enterprise. Broad deployment of the automated, streamlined process will free up resources throughout your organization. Process management dashboards will let you track and monitor the metrics. Keep in mind that your organization may require realignment around the new processes. This may include change management activities and employee retraining. Agencies may decide to establish BPM centers of excellence to govern the creation of new work processes as the BPM initiatives expands.

The Impact of Collaboration and Automation:

- **More speed and efficiency:** Clearly the automated workflows that characterize Stage 2 deliver faster and more efficient government processes. For instance, the department of revenue for a large Northern state now uses electronic documents and workflow to process 95 percent of tax returns within five days. Prior to modernization, the average processing time for a tax return was longer than a month.
- **Improved citizen satisfaction:** In the case of the state tax agency, citizens got quicker tax refunds and better information about the status of their returns. These results are typical of Stage 2 deployments. Transactions are executed quickly and accurately, and customer service representatives have access to timely information about the status of filings, eligibility requests, and other common constituent interactions.
- **Improved outcomes and better accountability:** Stage 2 capabilities foster what IDC calls “collaborative interfaces,” which promote information exchange among government officials in charge of assessing, evaluating, and operating government programs.

With these sophisticated capabilities in place, your organization can dramatically boost efficiency and service levels. And the improvements made in Stage 2 prepare your agency to move to the final stage of the EMC model.



Stage 2 Manage Process and Risk

Objective

Operational efficiencies and automation

Challenge

- Process definition and automation
- Organizational adoption
- Enterprise data model 7x24x365 access

Processes

- Build enterprise repository
- Automate workflows
- Collaborate internally
- Employ retention policies
- Develop applications program interfaces (APIs)

Benefits

- Productivity
- Customer service
- Expense reduction
- Accountability
- Quality assurance
- Maximum IT investment
- Reduce vendor maintenance

Enterprise Infrastructure

- Enterprise content management
- Business process management
- Business intelligence/analytics
- Legacy systems integration
- Archiving/records management
- Payments and collection
- Virtualization
- Shared services platform

Stage 3: Enabling Constituents

Communicating and transacting electronically

Case Study:

Streamlining Correspondence

This large revenue agency annually issues tens of millions of communications to constituents, requiring the use of approved communications across multiple physical and electronic channels. And as regulations changed, they needed to rewrite, review, and update all constituent communications. Using advanced content management capabilities, they were able to allow business users make changes, launch review cycles, and update the outbound communications.

Specific benefits included:

- Reduced by 80 percent the time needed for making changes
- Reduced by 75 percent the requirement for IT development staff
- Reduced by 50 percent the number of notice variations

During the prior stages, crucial back-office content processing infrastructures were profiled, which highlighted the competencies and processes required to conduct electronic transactions with agencies, citizens, employees, and businesses. Progressing to the final stage, Enabling Constituents, is characterized by the use of portals for “self-service” government that lets citizens and businesses interact and transact with government agencies openly, securely, and electronically—on demand.

The Enabling Constituents stage extends the back office to a broader audience: the public. This new electronic “front office” provides a convenient single face to government information and interaction. Here are a few practical—and high-value—examples:

- Citizens purchasing or renewing licenses/registrations online. Automated processes lead them through the necessary steps to complete these transactions and let them pay fees electronically. The appropriate license is generated and quickly mailed to the recipient.
- Agencies operating in highly regulated environments—taxation, labor, social services, and others—communicate quickly and accurately with constituents across multiple channels. These agencies can access stored, legally compliant messages that can be personalized to keep businesses and citizens informed via print, e-mail, and the Web. Automated approval and routing ensures that regulatory requirements are met.
- Grant-seekers apply for funds online and electronically submit necessary documentation. A secure grant portal allows them to check the status of their application at any point in the process—at any time of the day or night—and notifies applicants when an award is made.

Final Considerations

In the Enabling Constituents stage, organizations largely exploit the collaborative information infrastructure created during Stage 2. The same business process automation used to streamline internal processes will now be extended to support online self-service transactions. And your existing enterprise content management and identity management tools can be leveraged to give citizens access to secure portals from multiple sources. However, as you formally open “internal processes” to external consumption, there are considerations that need to be addressed.

- **Security and access control:** As you move sensitive data and transactions to publicly accessible web portals, you must guarantee the privacy and security of data. It’s likely that you’ve deployed strong access control and encryption measures during Stage 2 of your evolution. Now it’s time to ensure that those tools are ready for even broader deployment, and you may want to consider added electronic-signature capabilities that allow external users to consummate complex government transactions without printing and signing paper documents.
- **Internal and external systems integration:** Appropriate integration with internal systems, such as budget and accounting applications, will enhance the value of your Enabling Constituents initiatives. Also, consider integrating with external systems where it makes sense. For instance, police investigation systems may need access to federal criminal history, fusion centers, or fingerprint databases.
- **User-friendly interfaces:** At Stage 3, you’re potentially interacting with a worldwide audience. Therefore, user interfaces for applications must be extremely simple and intuitive. Thoughtful interface design will promote uptake of these electronic services and boost citizen satisfaction.

- **External notification and correspondence:** As organizations conduct a wider array of electronic interactions with citizens and businesses, automated tools for corresponding with constituents will become more important. Automated communications tools cut correspondence cost, while improving the accuracy and reducing turnaround time for messages sent to the public. These capabilities can further strengthen user acceptance of electronic service offerings and help improve agency compliance with legal requirements.

About EMC

EMC helps government organizations manage growing volumes of information—from creation to disposal—through information lifecycle management processes. EMC combines best-of-breed platforms, software, and services into high-value, low-risk information infrastructure solutions that help state and local government organizations maximize the value of their information assets.

Consolidate and Conserve

EMC reduces cost and increases operational efficiency. A paramount goal of state and local government is to control costs while meeting the increased demand for accountability and operational performance. Budget shortfalls have not stopped the demand for investing in “greener” solutions. Many state and local jurisdictions are re-evaluating their current storage, record, and data retention strategies.

EMC helps government accomplish these objectives, offering seamless storage and data management solutions and aiding citizen service delivery by consolidating applications, processes, and storage, resulting in minimized power requirements. Consolidation of server and storage resources results in increased operational efficiency and reduced energy consumption, cost, and overall carbon footprint.

Safeguard and Monitor

EMC helps mitigate risk and anticipate emergencies. As security is one of the biggest challenges facing state and local government, vulnerabilities must be assessed and prioritized to achieve operational recovery quickly. EMC protects assets and anticipates the need to respond to emergencies. As an expert in backup and recovery solutions, EMC assists government in realizing true business continuity across multiple divisions, agencies, and jurisdictions under the most adverse conditions.

Collaborate and Comply

As a leader in collaborative case management and e-discovery solutions, EMC helps government “govern smarter.” Regulations and laws call for comprehensive solutions based on documented experience and expertise—all of which EMC provides. EMC can help government transition into more effective networks that can take advantage of the latest technologies to support legal discovery, enhance record retrieval, and achieve more robust e-mail and content archiving. EMC records management solutions help government mitigate risk and achieve compliance via uniform policies for the creation, retention, and disposition of all electronic, physical, and e-mail records.

EMC has a solid track record in the technology and services areas necessary to deliver advanced information infrastructures for state and local governments of all sizes.

Stage 3 Enabling Constituents

Objective

Improve service to citizens, businesses, employees, and other government entities

Challenge

- Delivering consistency across electronic and physical channels
- Enabling electronic transactions
- Integrating across processes and systems

Processes

- Create transparency
- Enable online access (publish, interact, and transact)
- Ensure secure access
- Deliver high-volume electronic correspondence
- Capture electronic records

Benefits

- Provide a “single face” of government
- Improve customer service
- Reduce operating costs
- Send compliant communications
- Support green initiatives

Extended Infrastructure

- External notifications and correspondence
- Program catalog
- Advanced security (information rights management and web authentication)

About the EMC Connected Government Model

This model was developed by EMC's public-sector leadership team, working with *Government Technology*, and government clients and partners. The principles for the model are based on the Carnegie Mellon® University Software Engineering Institute's (SEI) Capability Maturity Model. The SEI is a federally funded research and development center conducting software engineering research in acquisition, architecture and product lines, process improvement, and performance measurement, security, and system interoperability and dependability.

Learn how to improve service delivery while cutting costs, time, and risk.

Take the Next Step

Call now: 800.607.9546, email egov-paper@emc.com, or contact your EMC representative today.



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