Middleware solutions for government Executive brief



Deliver integrated solutions for collaborative government.



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Executive summary

Like other organizations, governments need to be easier to do business with. To achieve this goal, governments need processes, structures and systems that enhance employee productivity. They also need to improve responsiveness to changing circumstances and provide businesses and citizens with easy access to government services. Every aspect of government IT needs to be simplified, coordinated and accelerated.

Government systems also have to be very flexible, because administrations change much more often than in business, and government-wide conditions change fairly frequently. These conditions include everything from business regulations and legislation to public-safety conditions and the need for government collaboration.

The keys are to:

- Provide substantial value to citizens and businesses by delivering easy, secure and automated information access.
- Meet the growing expectations of citizens and businesses.
- Maximize efficiency.
- Manage compliance with regulations and standards.
- Deliver robust yet user-friendly collaborative systems.
- Verify and architect systems for information security and privacy.
- Minimize operational costs across the board.

These initiatives need to be planned and executed in a risk-averse environment to avoid possible costly public mistakes.

IBM offers middleware solutions to help governments address these issues and provide a solid architectural foundation for a variety of government needs.

Address challenges of modern government

Governments face a variety of general challenges, including cost issues, impediments to true information integration, system rigidity and less-thanoptimal architectures.

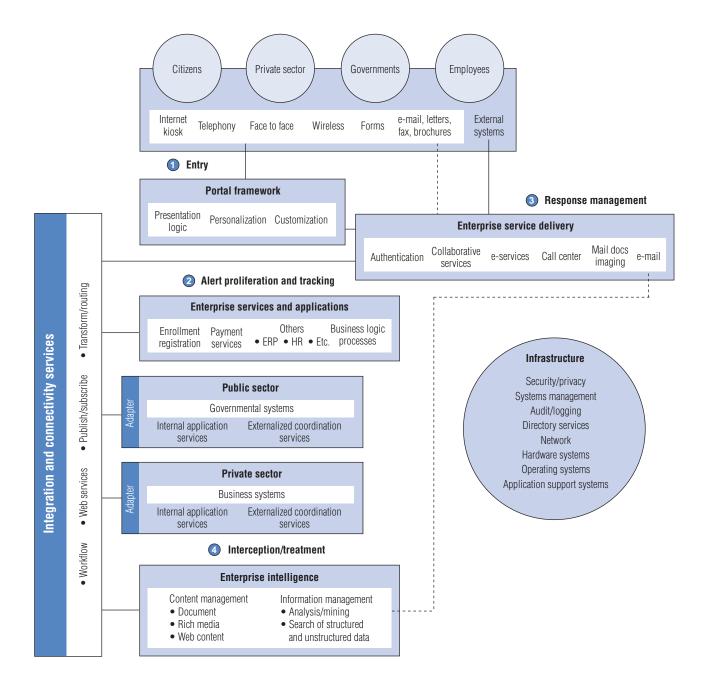
Most government departments need to minimize costs in the face of limited or declining resources. Paper-based and manual information-processing activities must be avoided to boost efficiency and save money. Electronic forms and records get produced, copied, edited, transmitted and deleted at rates that defy conventional capture and classification methods. Everything needs to be handled intelligently, efficiently and securely — but without substantial budgets, these projects appear daunting if not impossible.

"IBM's middleware solutions have helped Miami-Dade County deploy new services in a fraction of the time and cost it would have taken using traditional point-topoint integration. A major part of this efficiency derives from the framework's ability to create common elements and reuse them to build other services. Our citizens are thrilled with the level of service we've been able to provide through IBM's portal service." Decision support, collaboration and just plain communication capabilities demand that the right information be available at the right time to make the right decision. Integrating information and producing this kind of environment is no small feat, especially when election, legislative and budget cycles restrict the time allotted for implementation and project launches.

Critical internal and external information often gets scattered across departments and other agency boundaries, making it difficult to access. Inconsistent standards for data currency, completeness, formats and security

-Judi Zito, Chief Information Officer, Miami-Dade County

exist. Undefined policies for data access remain. Geospatial and resource attribute data for available public-safety assets prove limited. Legacy systems need to be integrated and leveraged. Service-oriented enterprise architectures need to be documented and executed against.



Cross-agency collaboration scenario

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"We see the [IBM portal] technology as an enabler. This was the most advanced tool we could find so that we would grow as our users become more sophisticated using this portal."

-Kristina Verner, Project Officer, City of Windsor, Ontario*

Governments need to meet these challenges and provide on demand IT capabilities that are collaborative, integrated, self-service oriented, flexible and responsive. Citizens, businesses, employees and public-safety personnel need them now.

IBM can help you become an on demand government

An on demand government has its processes integrated end to end across the organization—with other government agencies and partner institutions—enabling it to respond with speed to citizen demands, business needs, changing economic conditions and legislative

IBM solutions help governments provide citizens and businesses with Web-based access to government resources. These government-to-citizen (G2C) solutions deliver a self-service capability — highly secure access in a timely manner — to accurate information and provide efficient, convenient access to government services and resources while minimizing administrative costs and burdens. The self-service model gives citizens immediate informational responses and allows government employees to focus on more critical issues.

priorities and policies.

The same concept works in a government-to-employee (G2E) setting with IBM workplace portal software solutions that support employee collaboration. With optimized collaboration and information exchange capabilities, government employees can respond quickly to cross-departmental requests and inquiries, new legislative or administrative requirements and unexpected events. Processes become streamlined, response times and quality of responses become optimized and morale gets a boost when employees can easily find information themselves. With a simplified portal structure, employees locate the right information from system-wide resources—whether those resources are applications for business processes, information in databases or actual people. As a result, governments manage operating costs, facilitate cross-departmental decision making and respond in a coordinated, effective manner to complex events.

By implementing IBM solutions for automated workflow, document management and collaboration, governments can minimize operational and storage costs while optimizing employee productivity. You can:

- Maximize the speed and quality of responses to information requests.
- Automate complex and tedious processes.
- Manage operating costs.
- Deliver information integrity, retention and security.
- Manage compliance with regulations and standards.
- Control document access.
- Minimize paper-based processes and redundant data entry.
- Manage document retention.

IBM G2E solutions also help governments provide data consolidation, analytics and collaboration platforms, which governments use to facilitate effective decision making across organizations and agencies that deal with everything from benefits administration to public safety. In a public-safety scenario, the benefits to governments include rapid response and access to integrated information, strong decision making and highly secure links among responding organizations. Integrated, mobile-enabled systems for effective interagency communications and coordination allow users to access critical information across hundreds of national databases and provide the necessary support rapidly.



- Providing an open-standards, service-oriented architecture.
- Exposing back-end information as a service to the employee.
- Facilitating cross-agency communication and knowledge sharing.
- Creating adaptable, flexible business processes.
- Providing database searching across multiple agencies.
- Providing enhanced security for real-time collaboration.
- Supporting cross-agency notification.

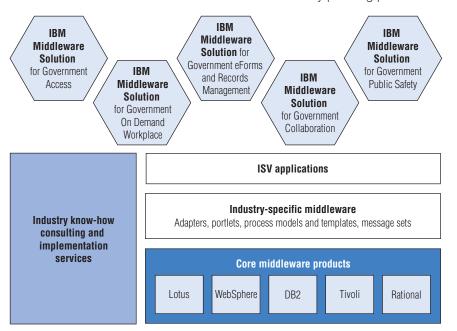
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- Offering compatibility with legacy systems to help protect your investment.
- *Providing a foundation for operational efficiency.*

IBM Middleware Solutions for Government target challenges

IBM middleware solutions provide the foundation for governments to address many pressing problems that they face. These solutions help governments



address distinct process problems and create business value by helping them meet industry mandates, manage costs and drive revenue. IBM Middleware Solutions are customized combinations of IBM core middleware and industry-specific middleware that, when combined with application software from IBM's network of independent software vendor partners and industry-specific services, enable customers to build an on demand operating environment.

Overview of a middleware solution

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IBM Middleware Solution for Government Access

Helps local, state, provincial, national, federal and multinational governments provide convenient online services and Web-based transactions. Based on IBM WebSphere® software, this solution allows governments to deploy advanced Web-based technologies to inform, engage and empower the people they serve with convenient 24x7, user-friendly access to online services and information.

Benefits of an on demand government environment include:

- Helps citizens and business constituents gain access to critical knowledge through Web-based information delivery.
- Enables 24x7 access to government information.
- Allows easy rollout of self-service information and applications in multiple formats with digital capture and conversion.
- Provides effective, rapid service through the use of collaboration tools.
- Provides a single, cohesive view of government for citizens and business constituents that requires no understanding of complex agency infrastructures.
- Supports compliance with Disability Act and other governmentaccess initiatives.
- Delivers information you need on the device of your choice.
- Offers managed costs.
- Maintains high-level security and citizen privacy protection.
- Minimizes development time by leveraging an integrated platform to build, integrate, extend, modernize and deploy e-government solutions.



IBM Middleware Solution for Government On Demand Workplace

Provides the foundation upon which government employees can deliver value and be highly productive by efficiently finding and sharing information as they provide important services to citizens and businesses. The solution facilitates simplified access to personalized content and applications using role-based views, performance data and just-in-time training and collaboration with experts.

Public-sector executives facing increasing budget pressures and human capital issues can use this solution to help gain substantial value. It helps governments maximize organizational performance with existing resource levels while providing outstanding customer service, high productivity levels and effective cost management.

This solution acts as the foundation for interaction with:

- Existing applications.
- Collaboration systems (existing and new).
- HR functions.
- Just-in-time learning and e-Learning (synchronous and asynchronous methods).
- Customer relationship management (CRM) systems.
- Expense reporting.
- Help desk.
- Directories.
- Executive dashboards.
- Forms processing.
- Information and libraries.

The solution helps government organizations transform their internal communications and operations and provides security for an enterprise-wide internal portal framework that can be tailored to government employee roles. Employees can identify experts in a rapidly changing workforce and easily mentor other employees. With this solution governments can build community support and collaboration, automate processes, enable self-service and help maximize operational efficiency by streamlining business processes.

IBM Middleware Solution for Government eForms and Records Management

Allows government employees to control document management and access, manage document retention and minimize paper-based processes and redundant data entry. The solution works with IBM DB2[®] Content Manager offerings to provide formal, rules-based management for processing, retaining and disposing records. The solution also allows government employees to complete, review, verify, route and approve forms electronically in a highly secure environment using an intranet or extranet.

IBM Middleware Solution for Government Collaboration

Provides the framework for building a comprehensive government solution for achieving collaboration and process integration across governments and government departments. This solution enables government entities to achieve horizontal integration of data across multiple lines of business by integrating government processes, disparate back-end applications, enterprise software packages, legacy systems and data into a seamless enterprise environment. Additionally, the solution's robust collaboration tools allow government entities to achieve people interoperability. By combining horizontal integration of data with collaboration tools that connect employees, citizens and businesses, IBM helps government agencies transform themselves and their interactions with other government agencies.

IBM Middleware Solution for Government Public Safety

Helps governments provide emergency responders with access to spatial (maps) and attribute (resources available, location, address) data to facilitate situational awareness and informed, fast decision making. This solution facilitates seamless integration of scattered and heterogeneous data through the use of federation and enables rigorous analysis and resource allocation through spatial visualization (symbols on maps). The result—the foundation for a comprehensive view of timely information (anytime, anywhere, from across government and private organizations) that can be leveraged in response to emergency situations.

The solution provides:

- The framework for an instant mobile messaging network that can disseminate critical-incident information to all first-responder teams.
- The capability for cross-agency database access to facilitate response to domestic public-safety situations.
- The environment that supports situational awareness in real time.
- Geospatial data down to one meter on digital maps.
- The architecture for a fully integrated command and control (C2) center.
- A collaborative team platform with tools for sending and responding to alerts and advisories that interoperate with instant messaging, file sharing and other collaborative applications.
- An integrated platform to synchronize and exchange information between specifically designated parties. This platform can allow team members to link with legacy systems from other first-responder agencies, command centers, and state and local governments, enabling facilitation of data integration and information sharing.
- A service-oriented architecture that offers information to users throughout the government network.
- The IBM Software Development Platform to help development teams build, integrate, extend, modernize and deploy public-safety systems.



IBM Middleware Solutions for Government provide a world-class foundation for your solutions and applications. Our extensive network of industry-focused ISVs complement these solutions. IBM ISV Business Partners provide leading industry-specific business applications that run on IBM middleware platforms. Examples include applications for enterprise resource planning, natural language search and financial risk management.

For more information

For middleware solutions that help you effectively manage governments, count on IBM. To learn more about IBM Middleware Solutions for Government and other solutions for the government industry, including case studies and more detailed information about solution components, call your sales representative or visit **ibm.com**/software/industries/govt



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*Kate Evans-Correia. Search400.com. "IBM delivers middleware for utilities, government markets." April 20, 2004.