IBM

Integrating Corrections:
Transforming Operational Data into
Predicative Information

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Executive Summary

The number of inmates in penitentiaries around the world continues to rise – causing corrections departments to identify new means of managing the associated vast quantity of prison data and records to meet the information requirements of internal and external stakeholders alike. The demand for accurate and detailed information highlights the imperative to implement systems that enable integration of data from all criminal justice agencies – including corrections, probation and parole offices, the courts and the police.

Creating electronic files and records enable corrections operations to run smoother. Beyond operational benefits, however, when electronic records are employed with additional data analysis and processing tools, these one-dimensional pieces of the puzzle are transformed into full, multi-dimensional preventative solutions. Correctional facilities can maximize the value of the data they collect and hold in their systems by integrating it into a system that links the information in a cohesive and comprehensive manner.

Corrections departments must identify systems that allow facilities to manage offender data and subsequently utilize the information both within the department and to collaborate with other relevant organizations. Enterprise Content Management (ECM) allows corrections departments to achieve synergies between all relevant stakeholders – providing improved ability to access, update and exchange relevant information. Considering limited department budgets and the ever-expanding prison population, departments should seek systems that address today's needs, while providing the scalability necessary to accommodate future requirements.

IBM FileNet ECM solutions answer this challenge. With an integrated suite of ECM solutions, FileNet solutions enable departments of corrections to streamline and automate business processes, connect with information systems, and access and manage content enterprise-wide. FileNet ECM solutions are built on IBM FileNet P8, a reliable, scalable, and highly available enterprise platform that integrates content and business processes across individual organizations and inter-connected communities.

Challenges of a Growing Population

The number of inmates in penitentiaries around the world continues to rise – causing corrections departments to identify new means of managing the associated vast quantity of prison data and records. A single prisoner record generates a bounty of paper files, as each includes documents from social services, legal, medical, clinical and education agencies, as well as a life/work portfolio. In addition, every aspect of a prisoner's life must be documented – from room and work assignments, to phone calls and visitors. With the United States prisoner population topping two million inmates in 2004 – an increase of 34.7 percent from 1995 [1] – corrections agencies are drowning in a paper flood. Facing this challenge head on, many U.S. states' departments of correction have established technology committees to evaluate the applicability and effectiveness of existing and emerging technologies in addressing the information management imperative.

Demands for Data

Correctional departments receive many requests for statistical information for a variety of purposes such as profiling the composition of offender populations, creating management and budget plans and developing corrections performance indicators. These requests come not only from internal corrections staff, but also from the press, researchers, lawmakers and a wide range of state and local government agencies. Requestors leverage the information for an array of objectives, including court scheduling, assessing suitability of offenders for placement in halfway houses, sentencing and criminal investigations, locating dead-beat dads and forecasting future prison populations.

Responding to these queries often requires corrections departments to link data from several databases or files, or to databases maintained by other sources. For under-staffed and over-utilized departments, compiling these myriad data types from their multitude of sources, and then analyzing and processing the information into the specified formats to meet external definitions, standards and protocols presents a significant resource challenge. The demand for accurate and detailed information highlights the imperative to implement systems that enable integration of data from all criminal justice agencies – including corrections, probation and parole offices, the courts and the police.

A Three-Fold Goal

Correctional facilities are responsible for the maintenance and organization of a wide variety of prisoner information and data. In addition to a prisoner's background files, countless activities a prisoner engages in every day must be well-documented. Corrections departments have three important objectives when developing a content and records management strategy:

First: Improve and enhance operations within the prison

Operations run smoother when all data concerning a prisoner is available in a centralized location and can be easily updated. From intake to release, correctional facilities maintain documentation on all aspects of an inmate's incarceration– including initial intake, records management, property, classification, medical, programs management, scheduling and movement. The bulk of

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[1] *Department of Justice's Bureau of Justice Statistics on December 31, 2004*

all the data correctional facilities collect relates to offenders' demographic characteristics, offenses, sentences, how long they can expect to stay in prison, their security risk, and where they are confined.

The evaluation of this data allows corrections officials to make internal decisions, such as the inmate's cell and job assignments, and permitted activities inside the facility. Information surrounding an inmate's behavior is also essential for parole hearings and other evaluations of this nature. Similarly, when an incident occurs within a correctional facility, data on the involved inmates' histories both inside and outside of the prison is often pulled to determine causes of situations and ways to prevent future problems. Facilities often receive questions regarding the number of violations committed by offenders having certain characteristics, and gathering this information involves extracting historical records and linking them to current case management records. With tools in place that enable successful analysis of this information, facilities can mitigate potential problems before they happen by targeting common offenders and developing programs and solutions to end the cycle of violence.

Second: Provide complete and accurate information to other facilities, parole officers, law enforcement professions, justice officials and other relevant audiences

Data that records the key events of offenders' time within the corrections system helps officials describe and profile offenders, measure probability for behavior relapse and contribute to public safety by populating the details of offender registries. As offender registries must include detailed histories of offenders, corrections departments must link current and past records. This involves extracting archived records from tapes and other media and linking them to the existing case management database. These registries also include a record of offenders' behaviors after their release, requiring departments to link their records with those of a parole agency in order to process the combined information.

By managing data through a centralized electronic system, facilities comply with recent industry developments moving toward information sharing and access across all levels of law enforcement and justice departments. The National Adult Compact Information System (NACIS), a Web-based database application that facilitates the adult parole and probation transfer process and other case-based activities, is one of the recent efforts to create a paperless inter-state offender tracking system. Once the system is fully implemented, it will provide a central database capable of delivering reports on offender management and tracking for external reporting to appropriate agencies. By creating a Web-based data system with comprehensive access to all aspects of prisoners' records, from digital fingerprints and photos, to full criminal histories and prison activities, relevant stakeholders can access and evaluate the big picture, providing comprehensive analysis, as well as more rapid and well-informed decision making.

Third: Comply with state and federal mandates

Each state maintains individual records retention requirements and schedules for each of their data sets. Accordingly, corrections departments must implement department-specific policies and procedures that enable compliance with these

regulations. In most states, corrections departments must retain jail registers – a permanent summary record of each person committed to a jail. The retention of more detailed files varies from state to state, with some states allowing certain material to be disposed of after 6 months, and others requiring maintenance of records for 75 years or more. And, retention policies for files and documents with shorter-term relevancy, such as medical records, activity reports, and the like also have varying policies. In New York, for example, prisons must maintain prisoner data files and case records for 15 years after death or discharge of a prisoner; whereas in Texas, prisoner medical records must be maintained for only five years after the release or transfer of prisoners.

Beyond the requirement to comply with recordkeeping time period mandates, corrections departments must also demonstrate the integrity of files and documents. With corrections data, most records garner relevancy during investigations or court appeals. As a result, it is essential that recordkeeping systems demonstrate the trustworthiness of each file. Additionally, systems must employ sufficient security to protect sensitive criminal and civil justice information such as victim, witness, law enforcement and court personnel identity.

Integrating Information to Maximize Value

Creating electronic files and records enable corrections operations to run smoother. Beyond operational benefits, however, when electronic records are employed with additional data analysis and processing tools, these one-dimensional pieces of the puzzle are transformed into full, multi-dimensional preventative solutions. Correctional facilities can maximize the value of the data they collect and hold in their systems by integrating it into a system that links the information in a cohesive and comprehensive manner. While the data– such as prisoner numbers, visits, phone calls, disciplinary actions – is useful to some extent at face value, this same information becomes actionable when it is compiled to identify trends and patterns.

By applying technology that facilitates the integration, organization and dissemination of corrections data from various sources, corrections facilities can improve internal management, increase public safety and cultivate helpful interactions among federal, state and local law enforcement. Better data management tools enable correctional facilities to identify and respond to criminal activities occurring inside their walls.

Corrections departments must identify systems that allow facilities to manage offender data and subsequently utilize the information both within the department and to collaborate with other relevant organizations. Enterprise Content Management (ECM) solutions allow corrections departments to achieve synergies between all relevant stakeholders – providing improved ability to access, update, and exchange relevant information. Such a system can also allow facilities to employ current biometric technology including digital fingerprinting, iris scanning and bar-coding to enable increased security and accuracy surrounding activities such as inmate booking, movement and release. Considering limited department budgets and the ever-expanding prison population, departments should seek systems that address today's needs, while providing the scalability necessary to accommodate future requirements.

ECM – The Information Integrator

Enterprise Content Management (ECM) offers individual corrections facilities and departments of corrections opportunities to achieve each of these priorities – bringing together content and process, automating information and knowledge, integrating and federating data, and delivering information to the right individuals at the right time.

Budget restraints or overruns are a constant issue with running corrections facilities or programs; however, with a constantly growing prison population, program goals and reality sometimes do not meet. ECM provides the ability to optimize budgets by streamlining operations and reducing dependency on physical documents – enabling integration with existing systems and tying together structured and unstructured information in a single repository.

A robust, fully-integrated, underlying ECM architecture provides departments of corrections with a solid foundation for unified ECM and Business Process Management (BPM), removing the need to integrate disparate software packages that provide common services. This increases operational efficiency by reducing the number of vendors required to support corrections management, while providing a common, unified foundation for building and deploying customized offender tracking, prisoner activities, or other corrections information management and dissemination applications. A well-designed ECM platform allows corrections system developers to deploy fully-integrated applications faster than building from the ground up, while such a core platform can provide all departments of corrections and individual facilities with rapid access to relevant information – enabling them to make better decisions, bring control and consistency to department processes, and efficiently share information with relevant stakeholders.

Specific components of a comprehensive ECM suite beneficial to departments of corrections include:

Business Process Management

One of the major challenges in corrections management is the ability to do things better and on time. The ability to streamline, automate and enhance existing processes would bring much needed cost savings and productivity gains to the already overburdened correctional system. BPM creates, manages and enforces a unified process management infrastructure connecting corrections officers, law enforcement, judicial organizations and decision-makers to one another and to applications. BPM controls the flow of work throughout an organization by streamlining, automating and optimizing processes. A robust BPM system also allows managers to analyze organizational processes and simulate changes to test results before implementing updates in the real world. This process refinement not only offers the opportunity to save millions of work-hours, but also frees individuals to focus on higher-value tasks requiring human intervention.

Beyond its individual benefits, BPM can work hand-in-hand with ECM solutions to activate content in the corrections environment. For example, a prisoner activity log can be scanned at one site with the resulting images automatically routed to the appropriate offices via secure communication. Further, alerts can automatically be generated to notify corrections officers

that new material requires attention in their inboxes or case folders. With these documents in hand, workers fuse the new information with data from other sources (also automatically routed to them) to produce targeted recommendations for individual prisoner management. Once routing and approvals are complete, finished case work is then sent to pre-determined recipients in the appropriate facility, based on roles and/or individual identification. Leveraging this BPM/ECM fusion, turnaround time from capture to actionable case file information is dramatically reduced.

Enterprise Content Management

Prisoner records hold little value unless the information contained within them is available to the appropriate audiences. ECM improves a corrections organization's ability to manage, find and share information – "activating" documents and content by automating actions such as alerts, routing and collation. Launching businesses processes based on predetermined criteria, ECM can speed report generation and information-sharing efforts – improving decision making at all levels of a department of corrections. Further, content management allows all relevant departments and agencies to share and access information from numerous repositories. It also federates critical information to provide a single source for content – providing prison operators with visibility and access to all the available information, thereby allowing for more accurate and timely management of prisoner activities and overall facilities.

Corrections management systems architects should seek out ECM products that deliver active content – content and documents that actively drive process automation to completion without human intervention. With active content, architects can ensure that processes continue to progress toward task resolution, thereby reducing time, cost and risk. With an integrated content and process foundation, corrections organizations can respond immediately to events – setting critical processes automatically in motion upon arrival of new data or other parameters, increasing organizational responsiveness and agility.

Web Content Management

Web Content Management (WCM) enables and simplifies the creation, approval and publication of Web content and complex documents to multiple Internet, intranet and extranet sites, and in multiple formats – an essential component in today's information-driven society. WCM provides a fast, secure and widely-available means of information distribution – enabling rapid and wide-spread distribution of information regarding prisoner situations. Further, it offers an easy-to-use tool to update information on paroled prisoners, supporting public information systems such as the National Sex Offender Public Registry. As correctional management systems architects evaluate WCM products, they should seek solutions that provide strong multi-site management, personalization and support for localized content, in-context editing capabilities, as well as support for Web content that needs to be delivered to multiple channels in varying formats. Together with ECM and BPM, WCM can convert corrections Web sites and portals from information dumping grounds into drivers of productivity and effectiveness.

Records Management

Records Management (RM) for departments of corrections is critical in not only information management, but also in mitigating risk associated with a prisoner's case file and parole activity. A robust RM capability is a key component of any

ECM suite. RM ensures compliance with regulatory, legislative and organizational policies by easily capturing, archiving and retrieving designated records, including jail registers, as well as prisoner medical records and activity reports. RM not only allows corrections organizations to meet records retention requirements, but also provides a means to quickly respond to Congressional inquiries, requests from the press and other similar events.

To be truly effective, an RM solution should enforce RM policies at the technology layer – eliminating user-related error by removing the burden of records declaration from the individual. By letting the software system manage the creation, storage, usage and eventual destruction of records, as defined by agency business rules – a process that is invisible to the end user – corrections organizations can reduce risk, lower operational costs and improve productivity. Departments of corrections should seek RM systems that scale to meet the records management and regulatory compliance needs of the entire corrections management system.

Email Management

Like all other government departments, corrections agencies increasingly rely on email as the communications tool of choice for rapid information sharing. Without effective management, however, email can quickly become a liability or security issue for a corrections facility.

The Email Management (EM) component of an ECM suite automatically indexes and archives email and attachments to a repository – reducing the chance of error and reducing the end-user workload. Further, this action can be scheduled to occur during off-hours or maintenance periods as appropriate to support the 24-hour nature of correctional facilities.

An EM system for corrections organizations should automate the process of capturing email messages as official records, simplify the retrieval of messages for the same purposes as records discussed above, and effectively solve email storage issues, while also offering significant opportunities for improving business processes and access to information. Organizational managers must be able to set up rules so that email messages are kept for required periods, destroyed when no longer needed, and available when it counts. This centralized capture allows for critical analysis of exchanges that may seem unimportant when examined alone, but revealing when combined with other exchanges or information derived from other sources. An intelligent EM system provides the means to effectively address both tactical and strategic email issues for a corrections facility.

Forms Management

Forms Management (FM) technologies can reduce an organization's paperwork burden by facilitating the design and deployment of electronic forms (eforms). Eforms speed operations and compress decision-making cycles by transforming cumbersome paperwork into fully interactive documents. Eforms enable users to view any form, anytime, at any given point in a process. In addition, eforms support digital signatures and tracking for audit trails to meet regulatory compliance requirements. With eforms, corrections organizations can more quickly produce formatted messages, reports and other such documents

without losing the flexibility of being able to change templates as needed. Such tasks as security clearance applications, investigations, parole documents, verifications, and "ticket passing" for visit requests can be automated to a large degree.

A robust FM solution for corrections organizations must provide data validation that ensures users fill out forms with the proper data, in the proper format. In addition, lookups minimize errors by reducing the amount of data that must be entered manually.

Why FileNet for ECM?

Today, more than 1,300 government organizations at all levels, in more than 80 countries worldwide, use IBM FileNet ECM solutions to streamline and automate business processes, connect with information systems, and access and manage content enterprise-wide.

FileNet ECM solutions are built on IBM FileNet P8, a reliable, scalable, and highly available enterprise platform that integrates content and business processes across individual organizations and inter-connected communities. Key benefits include:

Improved Foundation to Manage Risk and Ensure Compliance: Controlling the use and access to information, FileNet P8 enables a department of corrections to protect and authorize content access as dictated by clearance level, individual identity, or role. Further, by utilizing the advanced security, comprehensive auditing, events, lifecycle management, and workflow capabilities of FileNet P8, agencies can comply with recordkeeping, as well as privacy and security regulations.

Increased Agility and Responsiveness: The IBM FileNet Content Engine, a key component of the FileNet P8 platform, manages a full range of structured and unstructured data, and processes information securely and reliably. It is an object-oriented metadata repository that provides maximum flexibility in setting up document and folder classes, as well as content storage options. This service provides a department of corrections with the agility it needs to support its 24x7 environment in real time, and provides the tools necessary to manage the continuous influx of large amounts of prisoner data.

Maximize Existing IT Investments through Support of Industry Standards: The FileNet P8 platform is based on industry standards, such as J2EE and XML Web Services, to enable agencies to maximize the investments they have already made in their IT environments. Extensive testing with industry-leading infrastructure products is done to ensure FileNet P8 applications can be deployed rapidly in any environment.

Real-time Performance and System Monitoring: The FileNet P8 platform provides a comprehensive set of system and performance monitoring features including integration with leading Enterprise System Management (ESM) tools. This enables system administrators to view system health and welfare in real-time – identifying potential problems before they occur and ensuring optimal uptime for the correctional system. In addition, FileNet supports the leading clustering, high-availability, and disaster recovery products – providing further support for corrections facilities regardless of geographic location.

Broad Range of Integration Options: The FileNet P8 platform provides a powerful set of capabilities for integrating with desktop and packaged applications, content repositories, and legacy systems – enabling departments of corrections and individual facilities to communicate with one another, regardless of installed platforms.

Unparalleled Support for Storage Media Types and Vendors: FileNet solutions support the leading storage vendors in the industry and a comprehensive range of both hardware and software offerings over all popular media types. This allows maximum flexibility when choosing the best-fit storage solution and can lower data storage costs – regardless of the quantity or type of data. Both rewritable and write-once technologies are supported for magnetic disk, optical and magnetic tape media, and overall relevant storage networking topologies, including SAN, NAS, and iSCSI.

FileNet P8 offers departments of corrections a reliable foundation on which to manage prisoner information, as well as execute essential business processes. With FileNet solutions, organizations are enabled to make better decisions faster while achieving compliance with all relevant federal and state regulations and meeting the information requirements of numerous public stakeholders.

Conclusion

ECM offers departments of corrections a platform on which to build prisoner records management and information sharing applications that not only enable regulatory compliance, but also provide the opportunity to increase effectiveness, efficiencies, and collaboration. By embracing ECM technologies, corrections organizations can quickly build effective technology architectures, platforms, and applications while leveraging existing IT investments and streamlining operations. With these improved operating infrastructures, departments of corrections are enabled to contribute to improving national offender management and inter-organizational collaboration – achieving these objectives without sacrificing security or privacy. An integrated BPM and ECM solution not only integrates structured data and unstructured information, but also reduces overall system costs, as well as minimizes complexity and time required to manage an ever-increasing inmate population.

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About IBM ECM

As the clear market leader in Enterprise Content Management (ECM), IBM's ECM solutions help organizations make better decisions, faster by managing content, optimizing business processes and enabling compliance through an integrated information infrastructure. IBM's ECM portfolio delivers a broad set of capabilities and solutions that integrate with existing information systems to help organizations drive greater value from their content to solve today's top business challenges. The world's leading organizations rely on IBM enterprise content management to manage their mission-critical business content and processes.