June 2007

An Introduction to Image Manager Active Edition
for IBM FileNet Image Services Customers

Abstract: IBM FileNet Image Manager Active Edition is designed to provide significant business and technical advantages for Image Services customers, without requiring a wholesale migration of content or disruption of current business solutions.

White Paper

Executive Summary

More than 20 years after the first FileNet imaging system was developed, IBM FileNet Image Manager/Image Services has evolved into the world's most well respected imaging software product due to its unrivaled ability to manage high-volume, transaction oriented, business-critical imaging requirements. With the launch of IBM FileNet Image Manager Active Edition, imaging customers can now leverage all the proven benefits of Image Services, with the comprehensive, event-driven, content management capabilities of IBM FileNet Content Manager, to provide a truly unique active imaging solution. With Image Manager Active Edition you can preserve your critical image content and increase the value of this content by extending it throughout the enterprise.

The top five reasons to consider Image Manager Active Edition are:

g **Increased Business Agility**

Image Manager Active Edition offers more agility and automation for current and future business applications.

g **Reduced Cost of Ownership**

Image Manager Active Edition offers a significantly lower cost of custom development and systems integration.

g **Investment and System Extensibility**

Image Manager Active Edition leverages your current investments and extends them by providing deep integration with the broadest set of ECM solutions in the industry.

g **Future Vision and Innovation**

Image Manager Active Edition is FileNet's forward looking, high performance imaging solution for Enterprise Content Management and will thereby deliver even greater vision, innovation, and business advantages in the future.

g **Extended Security and Compliance**

Image Manager Active Edition is designed to minimize your vulnerability to compliance and corporate governance mishaps through its extensive auditing, multi-layered security, and permanency capabilities.

Beyond Image Management

Since Image Services was first delivered, your business environment has experienced rapid change and increased pressure to streamline its IT environments and investments. These evolving business needs, combined with advancing technology standards, requires enhanced solution capabilities extending beyond traditional imaging and content management. Business and compliance needs require that content management capabilities expand to include XML text snippets, rich media, Web content, forms data, and even XML data while still requiring advanced document and fixed content capabilities. Image Manager Active Edition provides a framework for functional expansion to manage any type of digital content and provides greater process control and consistency across the enterprise. Image Manager Active Edition, as part of IBM FileNet P8, provides a gateway to a unified platform for managing content, processes, and integration to existing applications, creating real process efficiencies and providing a scalable architecture for expansion.

Where Image Manager Active Edition and Image Services Differ

Image Manager Active Edition's fundamental content and document management capabilities,

in general, offer expanded capabilities and options when compared to Image Services. Image Manager Active Edition's workflow and process management capabilities are designed to be far more extensive than Image Services. Compared to Image Services, Image Manager Active Edition offers the following expanded capabilities:

Robust, event driven architecture provides:
→ Full lifecycle management capabilities
→ Business event driven content creation, updating, and workflow solutions

Deeply integrated IBM FileNet Content Federation Services (CFS) includes:
→ Support for content stored in multiple FileNet and non-FileNet repositories to be managed by Content Manager
→ No conversion required for Image Services customers to take advantage of Image Manager Active Edition and FileNet P8

Enhanced search capabilities provide:
→ Cross repository search via CFS
→ Relevancy rankings
→ Searching by multiple object types
→ Bulk XML import which includes the ability for the API to return XML
→ No intrinsic limitations on the number of properties, classes or choice lists supported
→ Subclass and versioning support for Custom Objects, Folders, and Annotations

Image Manager Active Edition is designed to offer more agility and automation for current and future business applications

While Image Manager Active Edition is capable of handling your high-volume, high-performance, fixed-content needs; it is also designed to provide far greater business benefits due to its ability to leverage the FileNet P8 platform, which easily manages and activates all types of content. By activating your content, new business events

are responded to and driven to completion immediately, thereby increasing the overall responsiveness and agility of business operations.

For example, Image Manager Active Edition allows you to implement an automated process whereby when a new contract is scanned and committed, a new customer record is created in your ERP, a new customer welcome package is generated, and customer service requests can reference the terms of the contract.

Image Manager Active Edition Provides Leverage To A Broad Set of ECM Solutions

Image Manager Active Edition comes with out-of-the-box FileNet Suite Integration for:

→ Business Process Manager
→ Email Manager
→ Forms Manager
→ Records Manager
→ Team Collaboration Manager
→ Web Site Manager

For example, by integrating Image Manager Active Edition with IBM FileNet Records Manager, your mission critical images can now be declared as records and managed accordingly. Once recorded, your images can be automatically activated for use within an approval process managed by IBM FileNet Business Process Manager. By directly integrating your image content with other FileNet ECM applications, you can extend the value of your content and increase enterprise productivity.

Image Manager Active Edition provides Active Content Capabilities

Unlike Image Services, Image Manager Active Edition is built on an event-driven architecture. This event-driven architecture allows for action to be taken on content metadata updates, thereby driving the entire content lifecycle – from creation to retention – with a much higher degree of automation. FileNet refers to this capability as

Active Content. Active Content allows enterprises to respond immediately to changing business conditions and transaction events. Business events can automatically put critical processes in motion and drive them quickly to completion, thereby increasing the overall responsiveness and agility of business operations.

Image Manager Active Edition allows for both manual and automatic invocation of workflow. Active Content allows you to activate, or process enable, content so that it works for you rather than requiring you to work on it. An example of Active Content in action would be automatically routing a particular class of documents for approval, while more sensitive documents require the author to initiate the approval workflow. Another example would be a particular class of author/editor automatically triggers an approval workflow but an author in, for example, the legal department, requires manual invocation of the approval process.

Image Manager Active Edition offers a better development and integration platform

Lower total cost of ownership (TCO)

By implementing Image Manager Active Edition, you can easily lower your total cost of ownership, rapidly deploy new applications, and decrease your integration costs. This is made possible by Image Manager Active Edition's open, expandable enterprise environment that takes advantage of standards-based tools that decrease the time consuming creation of new code and system maintenance.

For example, with Image Manager Active Edition out-of-the-box you can configure a workflow application that delivers a recently scanned and committed loan document directly to the loan processor responsible for reviewing and processing the loan. By pushing the loan document to the loan processor, rather than waiting for the

processor to pull the document from the system, time to approval can be significantly reduced.

Extended integration options

Image Manager Active Edition is designed to provide extensive support for Content Federation across an enterprise as well as provide integration capabilities to content enabled by third-party systems such as CRM systems. Image Manager Active Edition's integration capabilities are segmented as follows:

→ FileNet to FileNet Integration
→ Non-FileNet Repository Integration
→ Third-party / Custom Connectors

Image Manager Active Edition offers Content Federation Services (CFS) that allows for content in Image Services to be managed by Content Manager. Image Services content can now be a full participant in FileNet P8 process management initiatives without requiring a conversion, customization, or migration.

Image Manager Active Edition is designed to provide extensive content management and image management support and integration capabilities for content stored in non-FileNet repositories. FileNet understands that most organizations will have a heterogeneous content storage history and that it is often cost prohibitive or disruptive to migrate all content to direct FileNet control. Reflecting this understanding, FileNet provides a mix and match approach to content integration that provides maximum flexibility and the ability to pick the right method for any specific need.

Content integration capabilities explained below provides a single integrated capability for Image Manager Active Edition to place your content under active control. Once content has been placed under Image Manager Active Edition's control, it is also available for use and interaction with all of the other FileNet P8-based applications and solutions.

Image Manager Active Edition, working as part of the FileNet P8 architecture, also provides multiple development options that provide a tiered approach to integration. For business needs beyond the extensive standards based integration and pre-built connector that FileNet offers, developers can create and implement multiple concurrent methods of content enabled integration with third-party or legacy systems. Integration options range from Web services based integration, to API-to-API calls, to dedicated custom interfaces.

Image Manager Active Edition Delivers XML Web Services and Service Oriented Architecture Advantages

Image Manager Active Edition, as part of FileNet P8, is based on a Service-Oriented Architecture (SOA) that utilizes XML Web Services throughout. Not only can the platform consume XML Web Services, but it also exposes functionality as XML Web Services, enabling a flexible foundation for application development. This architecture enables FileNet to apply its 20+ years of enterprise-class process technology development experience to the entire set of ECM functionality, uniquely differentiating its platform from all other providers. The FileNet P8 platform also uses Web Services internally as a communication mechanism for sharing functionality. The service oriented architecture allows connectivity to a wide variety of applications from the mainframe to new generation architectures.

Image Manager Active Edition will continue to advance its already industry-leading capabilities

Moving forward, plans are in place to continue to evolve Image Manager Active Edition and remain focused on extending SOA enabled content management capabilities to meet your new and changing business needs. Plans include extending Image Manager Active Edition's already best-in-class scalability and integration capabilities,

and to improve enterprise-class administration support. Broadening platform support for Image Manager Active Edition to be platform independent is planned for the near future.

Standards-based support will continue to be a priority, including specific support for JSR 170 and WSRP. Specific areas of functional enhancements include:

→ Greatly expanded content analytics capabilities

→ Expanded Content Federation capabilities

→ IBM/TSM support

→ IBM Fixed Store support

→ Hitachi Fixed Store support

→ Ultra Density Optical Support

→ SharePoint Portal integration

→ Expanded XML Authoring integration

→ Storage Policy to Lifecycle State Transition

→ Categorization/ Classification enhancements

→ XML Publishing/Output management enhancements

→ XML Ingestion/Parsing enhancements

Image Manager Active Edition helps you address your growing security and compliance requirements

Image Manager Active Edition is designed to minimize your vulnerability to compliance and corporate governance mishaps through its extensive auditing, multi-layered security, and permanency capabilities. With Image Manager Active Edition you can prove that only the users with the proper level of security have access to your critical business content.

For example, a CEO committing a new document that includes confidential corporate financial information will apply a specific security policy to the document. This security policy allows the document to be tracked and secured in accordance with strict corporate and government compliance requirements. The security policy automatically

assigns multiple layers of security to the document, which either deny or approve rights based on a user's security level. In the event the creator of the document, the CEO, does not have rights to perform actions on the document due to a compliance investigation, Marking Sets may be placed on the document to provide an additional layer of security. Once the document is no longer under investigation, the Marking Sets can be removed. No matter what the situation, you can rest assured your content is secure with Image Manager Active Edition.

Summary:

IBM recognizes that you have a substantial investment in your existing technology and business solutions. Your existing deployments on Image Services are protected and can be used in conjunction with Image Manager Active Edition's capabilities. The substantial advantages that Image Manager Active Edition and FileNet P8 provide can be extended to your existing deployments.

Appendix One: **Key Architecture Differences**

Image Manager *Active Edition*	Image Services
J2EE and XML Web Services Development environment	Image Services uses IDM which is primarily Microsoft based
Tiered – presentation, logic and data	IDM is client/server
Event driven and request / response	Image Services is only request / response
Native LDAP Integration	Image Services has a proprietary security model
Check-in, check-out, version control, and locking	Not available
Full lifecycle management	Retention management only
Tightly integrated with FileNet P8	Requires ISRA
Extended cluster server support	Limited cluster server support (Microsoft only)
Out-of-the-box workflow (process engine)	Requires eProcess
HTML and PDF publishing available out-of-the-box	Not available
Marking Sets	Not available
Active Content	Not available
Multi value property list	Not available
Content Federation Services	Not available
Classification framework	Not available
No hard coded limit to the number of available columns	Limited to 224 columns
Native support for XML exporting and importing	Not available

Appendix Two: **Image Manager Active Edition Feature/Benefit Overview**

Features	Benefits	Impact
Scalable, Distributed Architecture	Grows flexibly as your business needs dictate by accommodating an unlimited number of users, locations, volumes and various types of content.	Helps users continually access the information they need to do their job at the same high-performance pace even during peak hours.
Page-level Access, Pre-fetching and Cache Services	Provides you with the quickest available response times for document images and data retrieval, providing greater responsiveness.	Allows users to make qualified decisions faster with instant access to information.
Fail over, High Availability and Disaster Recovery	Ensures the continuous availability of your critical data in the event of a hardware or network failure or disaster.	Enables users to remain productive and protects revenue loss that would normally result from an interruption of access to data.
Robust, High-Performance Repository	Makes your content highly available by storing billions of objects and accommodating thousands of users.	Increases your enterprise's productivity.
Layered Data Integrity and Redundancy	Protects your data from corruption at all times and recovers automatically from unexpected environmental disruptions.	Helps users make decisions confidently knowing that data is safe from corruption and always available when they need it.
Immediate Access via a Web Browser	Enables information access throughout the enterprise by easily integrating with your existing Web browser and corporate portals.	Allows users to work in a familiar environment while also reducing desktop-support costs.
Security Services	Provides sophisticated access and control, allowing for selective security access to sensitive business information.	Removes compliance concerns because only the people with the appropriate access can retrieve, view, edit, annotate, or delete a specific document.
Storage for Any Fixed Digital Asset	Captures, stores, and accesses objects flexibly in any format, including documents, faxes, PDFs, email, COLD, audio/video, images and graphics.	Enables users to instantaneously access the content they need to do their job—without limitations of content type.

Appendix Two, continued: FileNet Content Manager Feature/Benefit Overview

Features	Benefits	Impact
Extensive Storage Support	Allows you to choose the storage option that best meets your company's needs. Optical: Insures content integrity and permanency for regulatory and legal purposes by providing tamper-proof, unalterable storage capabilities Magnetic:Leverages existing corporate data storage devices such as SANs, NAS, HSM, and other shared storage devices EMC Centera and NetApp SnapLock: Leverages CAS and magnetic WORM technologies to provide a compliant storage environment.	Removes many compliance concerns because these solutions meet the requirements of the following regulations: SEC Rule 17a-4, 21CFR Part 11, HIPAA, and Sarbanes-Oxley. In the case of magnetic storage, the solutions enable the use of fast, cheap storage.
Automatic Online & Unattended Backup	Delivers higher levels of availability through online and unattended enterprise backup, including incremental backups and data compression.	Gives the System Administrator more time to perform business-enhancing tasks and reduces the risk of losing data.
Computer Generated & Print Stream Data (COLD) Support	Accommodates storage and access of computer-generated reports in a single solution to better serve constituent needs through greater information access.	Allows consumers of computer-generated and print-stream data to process their work faster.
Fully Integrated Capture Environment	Minimizes scanning and indexing costs through maximum throughput and accurate metadata creation. Guarantees high content-acquisition service levels due to high performance and fault tolerance. Streamlines the capture process and decreases the need for human intervention with distributed automation features. · Enables remote users to take advantage of a Web-based client to perform indexing and image verification of images.· Performs record declaration.	Reduces the costs of doing business by removing the limitations of paper. Automates the indexing and processing of images.Allows organization to leverage the domain knowledge of remote workers so that documents are indexed correctly, at the point of origination.Reduces the typical administration costs associated with remote workers since the product can be managed centrally and dispersed globally via the Web. Speeds up the records management process by declaring a record before it is committed to the system.
Integration with ERP & CRM Systems	Enhances the value of existing investments by extending the types of content available for use in enterprise applications (SAP, Siebel, etc.).	Lets SAP or Siebel power users work with their preferred interface to easily and securely access information that is managed and stored outside of the application.

Appendix Two, continued: **FileNet Content Manager Feature/Benefit Overview**

Features	Benefits	Impact
Comprehensive Content Management & Library Services	FileNet Image Manager Active Edition provides all the content management capabilities that an enterprise needs. It allows for fine-grained content management with complete control over lifecycle management including highly flexible content storage management. It provides proven and robust full lifecycle management to create, edit, publish, search enable, and record manage all of your content. It also provides seamless and completely integrated interoperability with FileNet P8, bringing you best of breed, expansion capabilities that are second to none.	Allows you to confidently address ECM and business problems, today and tomorrow, knowing that Image Manager Active Edition will be capable of meeting your most complex and demanding needs.
Single, Unified Repository	Reduced complexity, improved content storage and retrieval.	Radically simplifies meta data management.
Document Review & Approval Workflow	Allows for exact control over how, why and when content is involved in the businessIncreases operational effectiveness and efficiency by routing the right information to the right user at the right time—streamlining business processes.	Removes the excuses and bottlenecks that often hinder the completion of tasks by pushing work to the users.
Event-Driven Architecture	Makes Active Content possible; allows both fixed and dynamic content to be active participants in your business rather than passive overhead	Allows for dramatic reduction in cost, time and risk; drives results to business conditions with fixed and dynamic content
Classification Framework	Allows content to be understood automatically and managed pro-actively; enables enforcement of ECM standards and strategy, while simultaneously enabling risk and information latency reduction	Enables content retrieval and reduces cost and risk
Full Lifecycle Management	Manages any type of content from cradle to grave with the desired degree of process-management approval and expiration flows	Enables you to implement optional business practices for your needs with complete flexibility across differing lines of business and content management needs.
Publishing Management	Automates how, when, and in what formats content is published while maintaining strict security and access rights	Automatically prepares and presents content in a wide range of publishing mechanisms

Appendix Two, continued: **FileNet Content Manager Feature/Benefit Overview**

Features	Benefits	Impact
Flexible Content Ingestion	Provides the ability to add new content under management in a flexible and evolving manner	Enables you to focus on what you want to do instead of wondering if it is possible
Universal Content Management	Provides federated content management; allows you to manage all of your content regardless of where it lives	Leverages existing content repositories and existing content; reduces TCO; provides a fast time to solution; allows a phased migration of content or a long-term interoperability; dramatically reduces integration costs and risks
Open & Standards Based Architecture	Preserves your choice and flexibility; helps assure that your future needs can be accommodated	Reduces cost; helps drive down TCO; reduces management complexity; preserves your choice
Highly manageable	Allows your technology support teams to proactively manage our solutions so they are available and performant for your business users. Content Manager offers the tools and monitoring capabilities needed to reduce or eliminate downtime.	Insures that your business users can get their work done, now and into the future. Greatly reduces the time and expense of managing our technology in production environments.
Compelling SOA capabilities	Image Manager Active Edition is fully SOA enabled, both as a participant in a SOA architecture as well as being able to serve as Hub for Enterprises just embarking on a SOA strategy. Image Manager Active Edition, working in concert with FileNet P8, is extremely well equipped to be the Enterprise clearing house for both content and process management activities throughout the Enterprise.	For Enterprises just starting or developing a SOA approach, Image Manager Active Edition, as part of FileNet P8, is an excellent way to get started. For Enterprises already advancing a SOA strategy Image Manager Active Edition can rapidly and easily extend and take part any existing implementation.
Desktop productivity tool integration	Allows users to continue to work in tools that are familiar to them; reduces training and support costs	Streamlines time to ROI and reduces user complexity; reduces support costs and time to positive user impact
Highly extensible	Allows you to extend command & control in the future; preserves your choice in other solutions to use and how interoperability is provided	Dramatically lowers the cost of integration with existing and future solutions, and creates new cost effective ways of driving cost and time from business operations.

Appendix Two, continued: **FileNet Content Manager Feature/Benefit Overview**

Features	Benefits	Impact
Dynamic content, fixed content, and data enabled	Allows you to implement a highly flexible ECM strategy regardless of the content type	Provides a 360-degree view of information, needed actions, and decision making
Deep and seamless integration with the entire FileNet product line	Image Manager Active Edition comes with deep and seamless integration with the rest of FileNet's P8 platform and applications. Best of breed process, collaboration, web publishing, imaging, records management and other capabilities will work out-of-the-box.	Dramatically lowers TCO and reduces risk of solution deployment
Advanced J2EE architecture	Provides a proven, standards based architecture that allows both highly scalable and manageable deployments.	Allows scalability to meet any business need; improves manageability provides peace of mind that you are not being trapped in proprietary technology.
Directory Server Integration	Image Manager Active Edition works, out-of-the-box, with the most widely deployed Directory Services already running in your environment.	Eliminates the need to administer security twice, and inherits all the user management you have already done. Solves issues quickly, significantly reduces TCO since security can be managed once at a directory-server layer.
Robust XML capabilities	Provides highly flexible capabilities for authoring, ingesting, publishing, and storing structured content. Combines the benefits of managing structure content with robust full Enterprise class content management lifecycle management capabilities.	Offers highly flexible integration options and a future-proof ability to ingest any type of content including unstructured content needing to be structure, highly structured technical needing to be managed as discrete elements and even transactional data from ERP and other systems of record.

**To find out how your organization can benefit from IBM FileNet P8,
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Or visit us at filenet.com/accelerate**

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