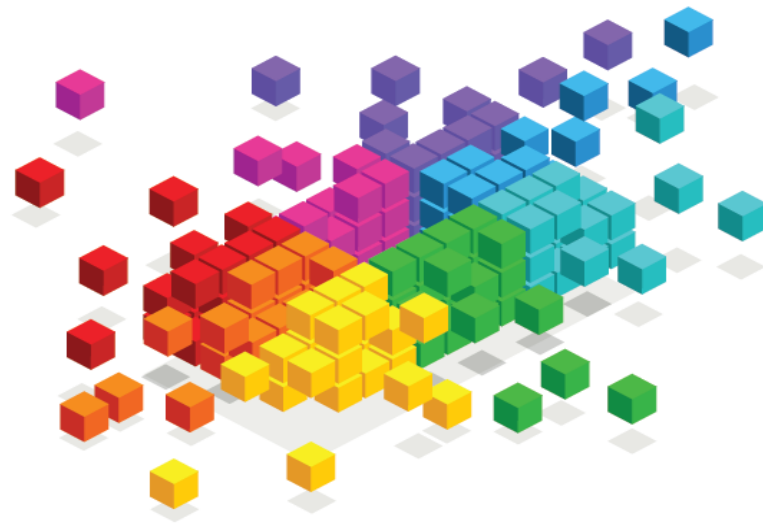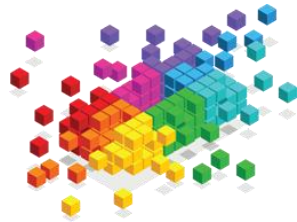# What's New from IBM ECM for IBM Content Manager Customers

Putting Content to Work
ECM UserNet 2011

Agenda

- IBM ECM CM8 Overview

- IBM Content Manager Features

- CM8 Clients

- CM8 & Lotus: Social Content Management

- CM8 Integrations
  - Quickr, MS Office
  - Content Integration
  - Records Management
  - DataCap

- CM for z/OS Specific Features

Continued investment in IBM ECM Repositories
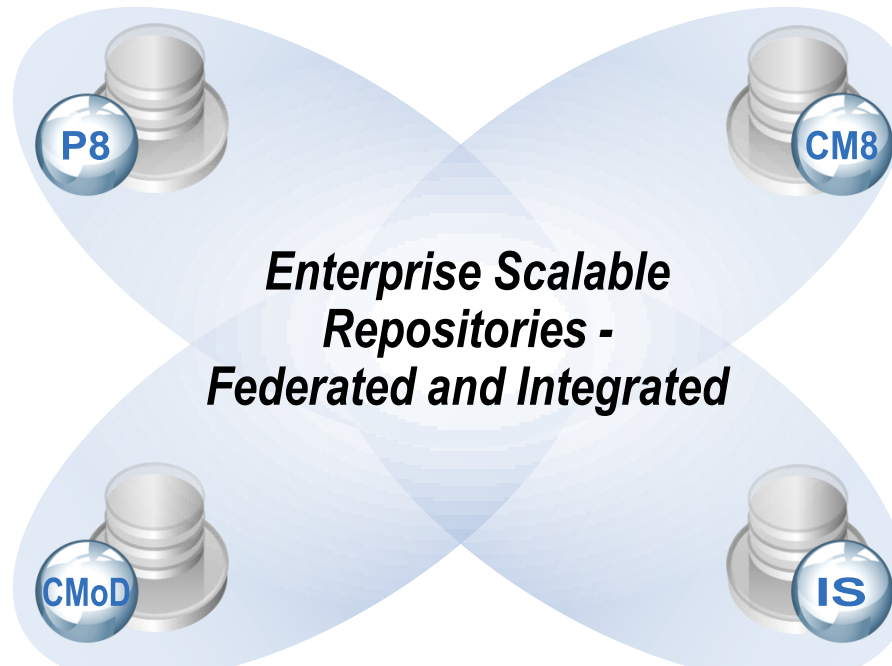
IBM FileNet Content Manager
Content Management Across Repositories
Services for enterprise-class content applications and master content catalog for managing content across various repositories

IBM Content Manager
Content Management
Services for enterprise-class content applications

*Enterprise Scalable
Repositories -
Federated and Integrated*

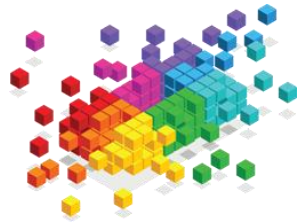## IBM Content Manager On Demand
Optimized Report Management
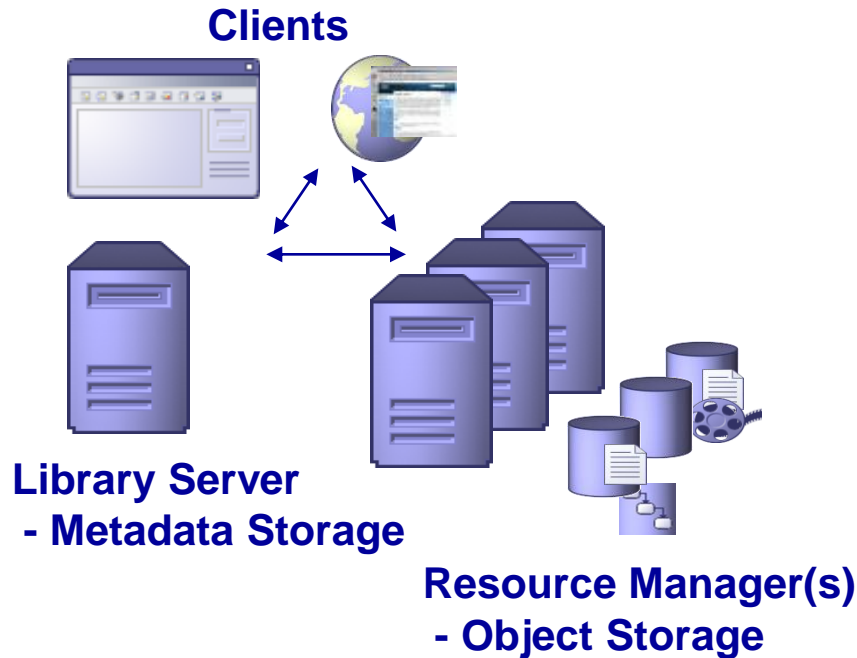Optimized for high volume reports & statements

IBM FileNet Image Services
Optimized Image Management
Optimized for high volume, scalable image collection, storage and retrieval

IBM Content Manager Enterprise Edition

Clients

Library Server
- Metadata Storage

Resource Manager(s)
- Object Storage

IBM Content Manager

- Provides a foundation for managing, accessing, and integrating critical business information on demand

- Integrates all forms of content across diverse business processes, and applications

- Exploitation / integration of database, web and storage technologies including WAS ND, TSM Connection Pooling, Text Search

- Manage business-critical digital content:
  - documents
  - images
  - rich media ...

- Repository & services:
  - manage lifecycle of objects
  - access control
  - support "heads-down" end users
  - integration with business processes
  - integration with enterprise applications

- Basis for ECM services and solutions:
  - Document Management & Imaging
  - Records Management
  - eMail Archiving
  - eForms
  - Discovery and Analytics

- Built in Hierarchical Storage Management provides the ability to automatically write to virtually any media storage device:
  - DASD,   **800+ Supported Devices**
  - Optical,
  - Tape,
  - Content Addressable Storage ...
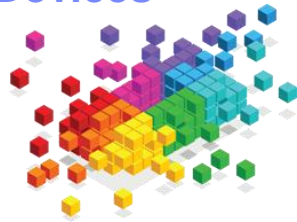
# CM 8.4 Enhancements – releases available today

IBM CM EE V8.4
- Office 2007 XML file formats
- Linux for System z
- IPv6
- WAS ND deployment improvements
- LDAP synchronization improvements
- eClient, APIs & query improvements
- Platform Updates

IBM CM EE V8.4.1
- WEBi 1.0.3
- Desktop connectors
- Lotus Quickr
- Oracle Enhancements
- TSM Connection Pooling
- Enhanced platform support
- Active Content Support
- FileNet P8 Business Process Manager for CM8
- Records Federated Services for CM8

IBM CM EE V8.4.2
- Performance enhancements for library server
- Improved document handling capabilities for viewer navigation and manipulation
    - Synchronized scrolling for document comparison
    - Improved navigation in thumbnail mode
- Technology Preview for the CMIS OASIS standard
- Enhanced system monitoring capabilities
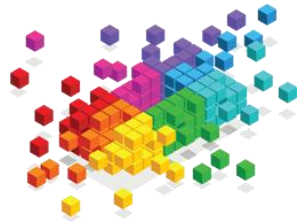- Additional events and improved event support for BPM applications
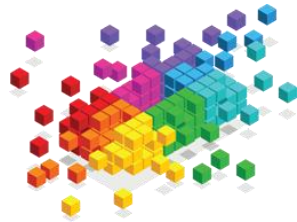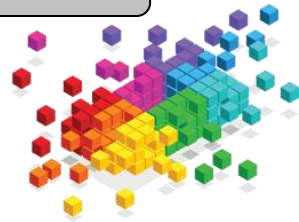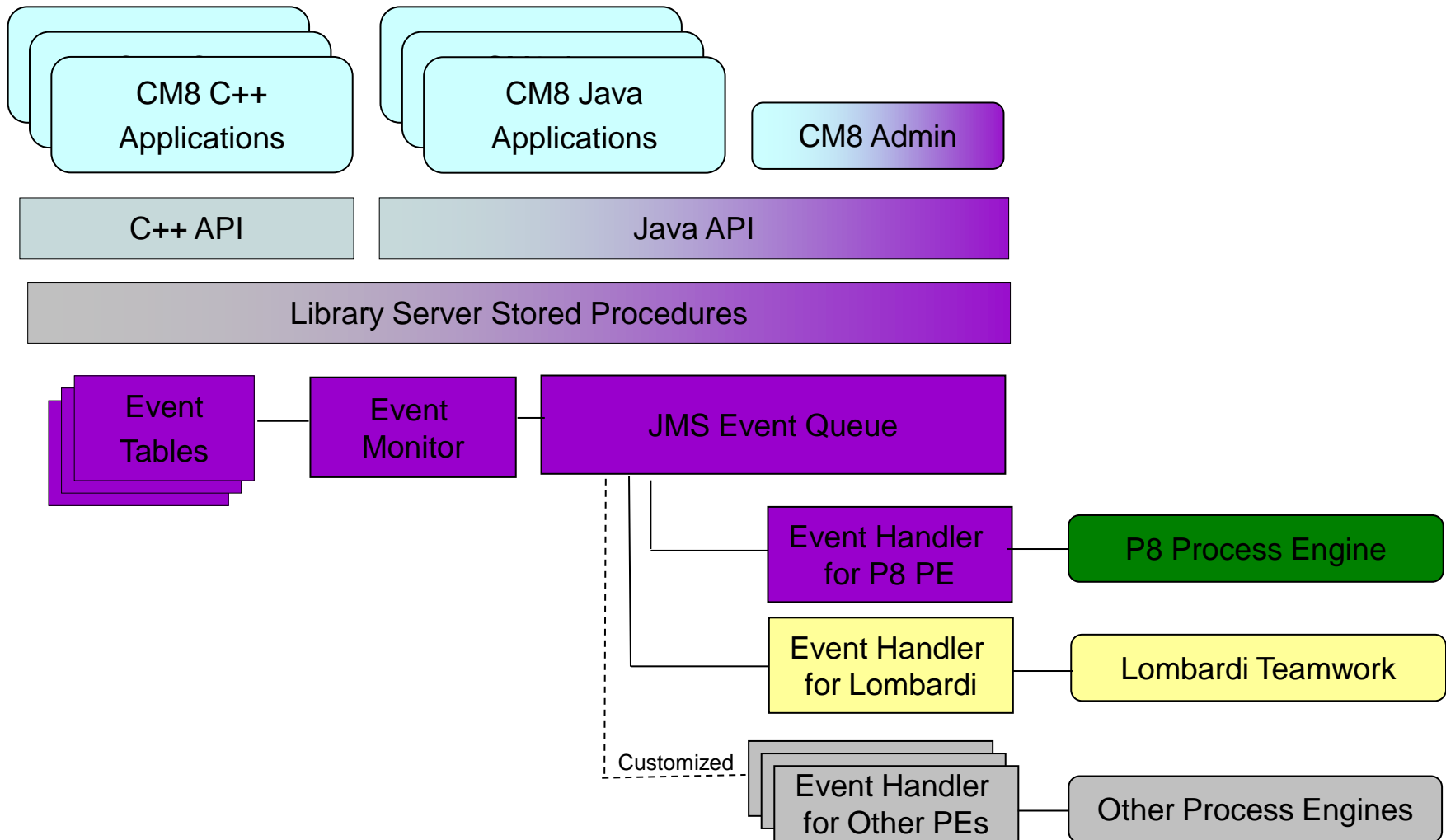
Active Content & Content Operations for IBM CM8

→ Direct integration of the IBM CM repository with FileNet BPM

→ Operates on IBM CM content from within FileNet BPM processes

→ Extending active content for IBM CM: launch processes based on addition of content to IBM CM repository

Event on CM8 content

Content Operations

P8 PE

CM8 Repository
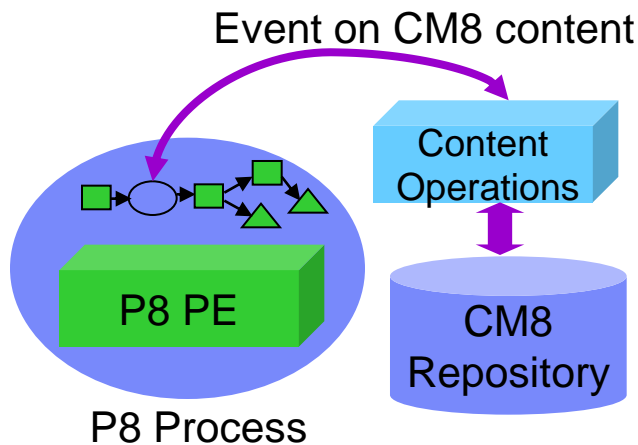
P8 Process

- Content operations enable business processes to interact with CM documents
  - **check-in, check-out, version, create, get properties**

- Operations can become part of the business process

- Events can trigger BPM processes

CM8 Event Framework Architecture

CM8 C++ Applications

CM8 Java Applications

CM8 Admin

C++ API

Java API

Library Server Stored Procedures

Event Tables — Event Monitor — JMS Event Queue

Event Handler for P8 PE — P8 Process Engine

Event Handler for Lombardi — Lombardi Teamwork

Customized

Event Handler for Other PEs — Other Process Engines

# Document Handling: Simultaneous Scrolling Support

- Simultaneously scroll through two documents that are being viewed side by side.

- This allows users to visually compare if 2 documents are the same or different in a side-by-side layout
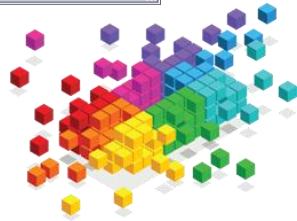
Common Viewer Applet Functionality

– Useful to compare a multipage document to another multipage document
– Minimizes mouse clicking and view switching
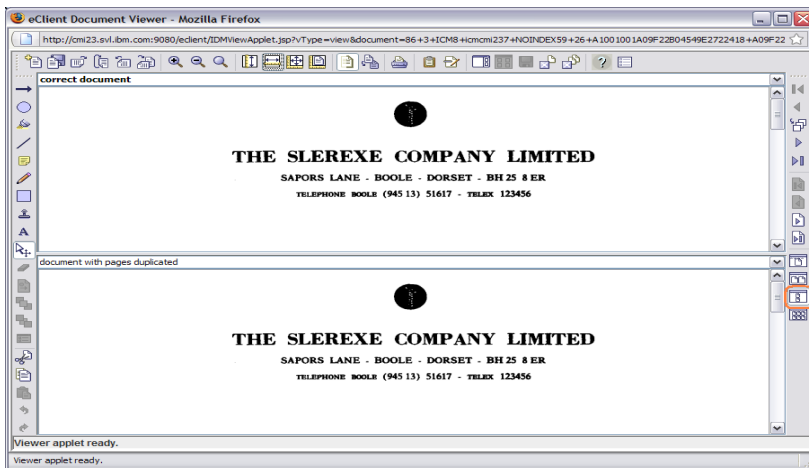
Vertical side by side layout selected
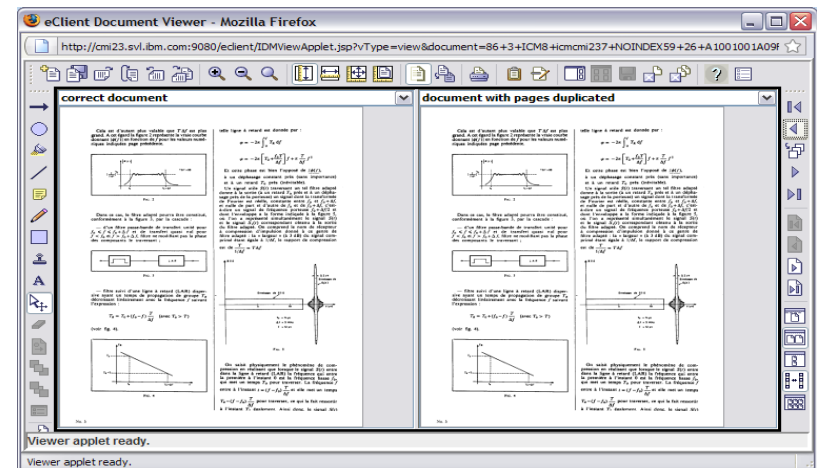

Indicator around both views when locked

Document Handling: Thumbnail Windows Navigation

- Frees up real estate for the single page view of the selected document.

- Enables page navigation of a document in a floating or docked thumbnail window of currently selected document.

- View and navigate the thumbnails in a separate window while simultaneously viewing the corresponding document page.

- Thumbnails are in a panel along with a full size view of the current page of the document (default view)

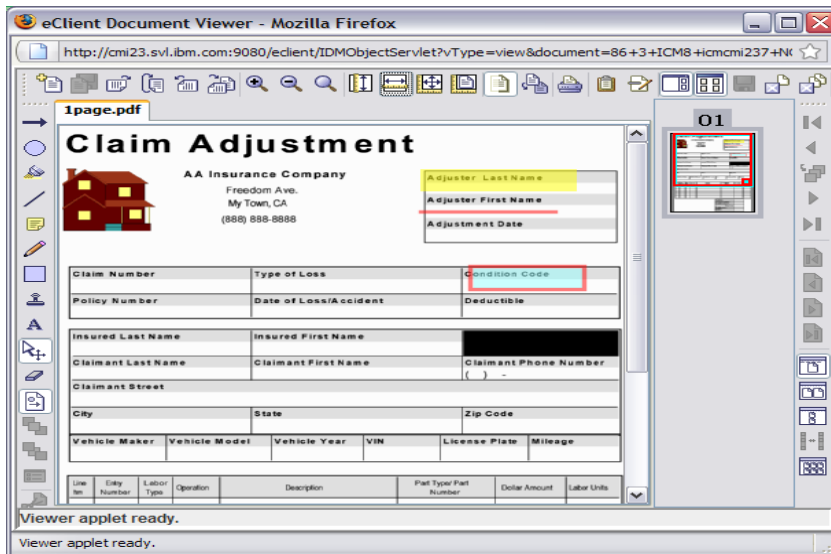**Common Viewer Applet Functionality**
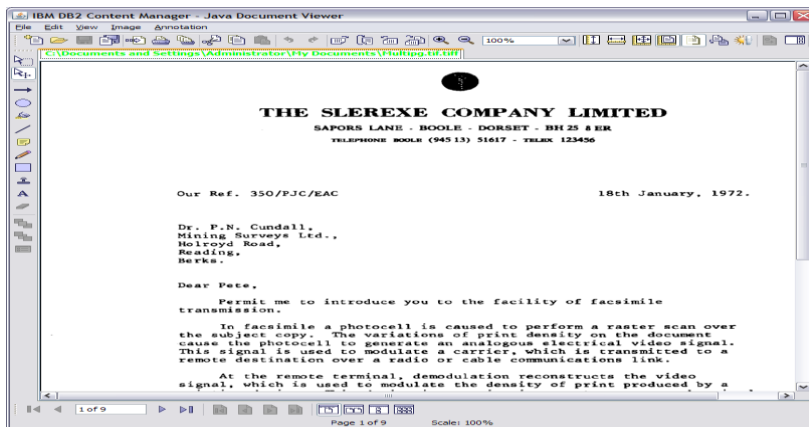
Document only layout
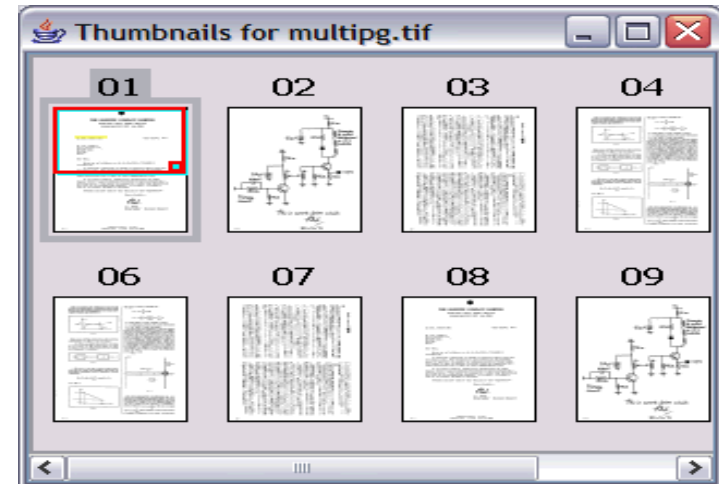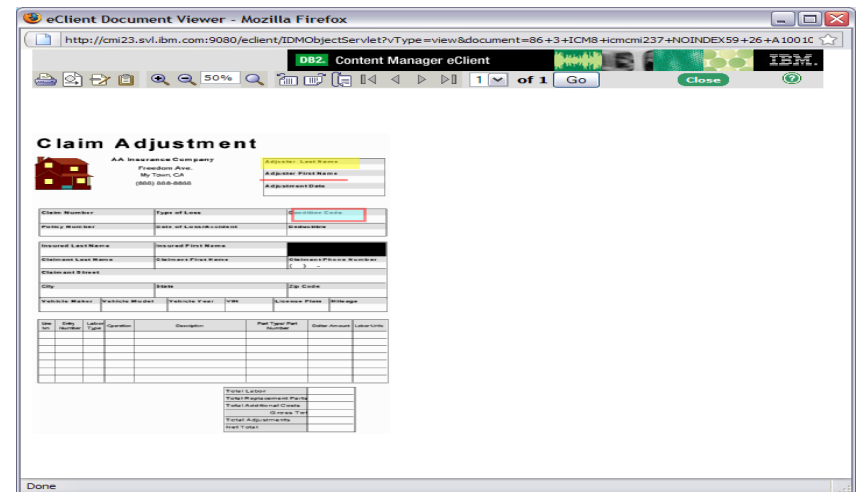

Thumbnails only layout

Document Handling: PDF Rendering

→ **Rendering support for PDF documents is now also provided in the Java Viewer Toolkit.**

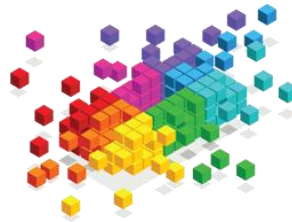**Common Viewer Applet Functionality**

Applet Viewer

HTML Viewer

- Page manipulation is disabled for PDF documents.
  - The cut, copy and paste operations are disabled.

Security – LDAP and Password Improvements

IBM CM 8.4.2 (multiplatform)

- **Nested Group support for Microsoft Active Directory**
  - Now a part of CM LDAP user import utility
  - Nested group: A group can contain other sub-group(s). All members in sub-group(s) should be considered as members of parent group
  - CM imports and synchronizes user-group relationships between AD and CM Library server.
  - Reduce administrator's work to maintain user-group in CM library server

- **Resource Manager Adminstration Password Lockout feature**:
  - Logon can be configured to be locked out after X number of failed logon attempts.
  - Lockout can be configured as a timed duration or forever.
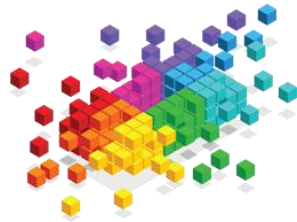
Serviceability: Message & Error Handing Improvements

- **Text Search**
  – Monitor UDF trace file to identify any problems during indexing
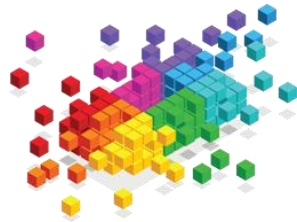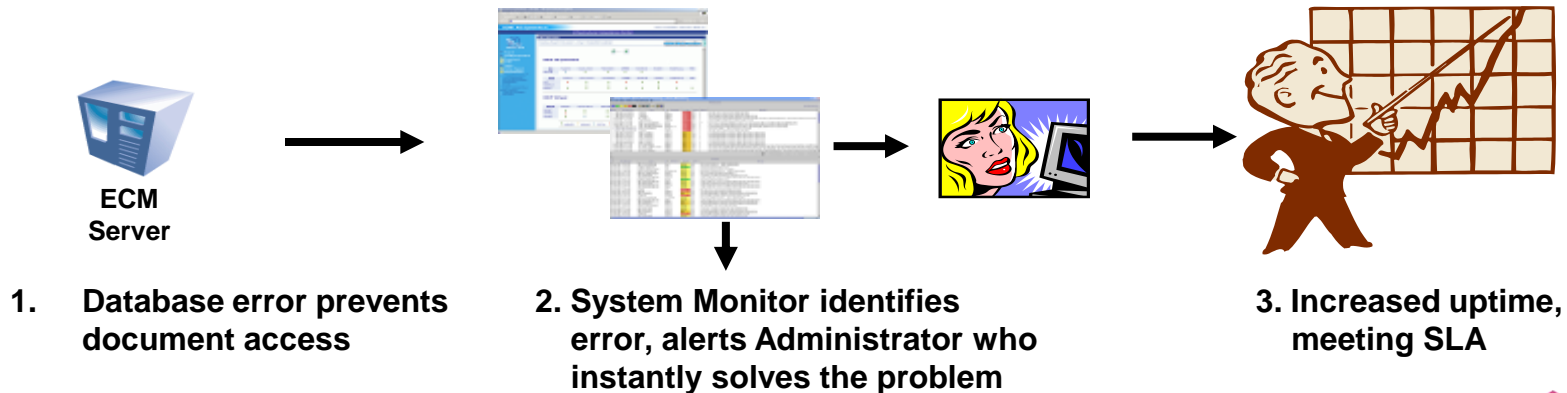
- **Library Server Trace error message improvements**:
  – User Logon failure
  – ACL checking error
  – Unexpected SQL error when returning cursors for retrieve

- **eClient error handling improvements:**
  – Privilege error in Document Routing and others with insufficient privileges

- **Improvements to API Logging feature**
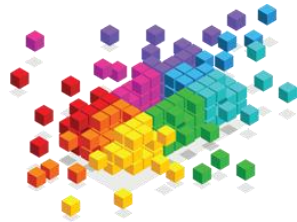
System Monitor and ECM Dashboard

- System Monitor is an ECM focused Enterprise System Management tool

- Remove "reactive" problem solving from system administration

- Pro-active notification of system issues

- Create customer-specific corrective actions

- Resolving issues before end users discover that there is a problem

- Puts you in control of your SLAs

Automates the monitoring of over 1000 parameters of all components of an ECM deployment and more than 75 configuration and administration tasks

ECM Server

1. **Database error prevents document access**

2. **System Monitor identifies error, alerts Administrator who instantly solves the problem**

3. **Increased uptime, meeting SLA**

ECM Dashboard for IBM CM Resource Manager
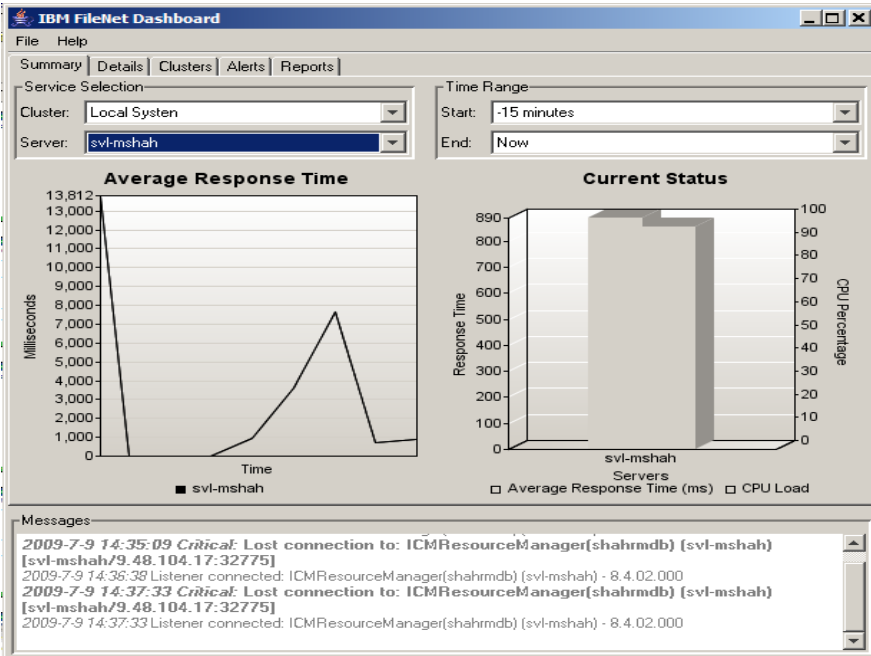
Events

- CRUD Resource Manager operations
- Replication and Migration operations
- Response time for successful operations
- Count of successful and failed operations
- Reset at Resource Mgr initialization

Accumulator

- Total amount content (MB) retrieved
- Reset at Resource Mgr initialization

Meters

- Count of objects waiting migration & replication
- Total number of objects stored in Resource Mgr
- Total content (MB) stored in Resource Mgr
- Measured at startup and then every 24 hours.

© 2011 IBM Corporation
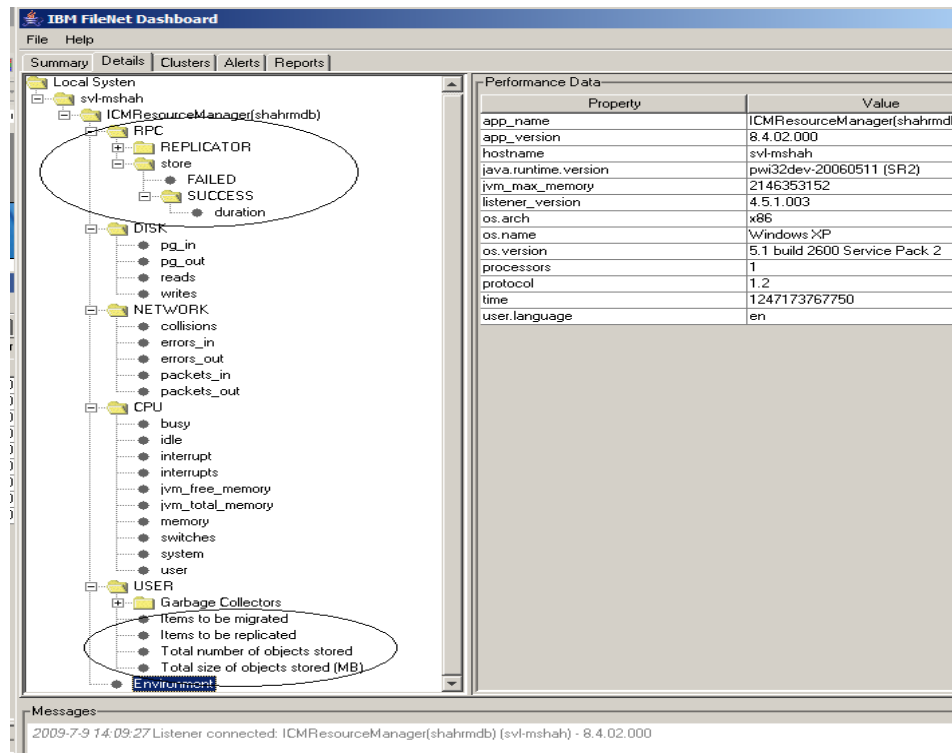
CM 8.4.2 Multiplatform Installation & Configuration Path

IBM CM 8.4.2 (multiplatform)

New Customer
(DB2 or Oracle)

No CM

CM EE v8.3
(DB2 or Oracle)

V8.3 FP6

V8.3 FP7

V8.3 FP8

. . .

V8.3 FPn

EOS
2010/09

CM EE v8.4
(DB2 only)

V8.4 (GA)

V8.4 FP1

CM EE v8.4.1
(DB2 or Oracle)

V8.4.1 (GA)
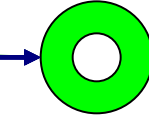
V8.4.1 FP1

v8.4.2
Media

CM EE v8.4.1
(DB2 or Oracle)

V8.4.1 (GA)

V8.4.1 FP1

V8.4.1
Updater

v8.4.2
Updater

CM EE v8.4.2
(DB2 or Oracle)

V8.4.2 (GA)

V8.4.2 FP1

…

Putting Content to Work
ECM UserNet 2011

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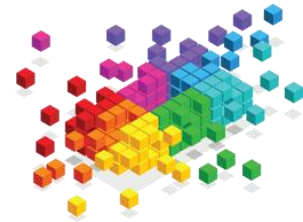
IBM Content Manager User Interfaces

Windows (pClient)
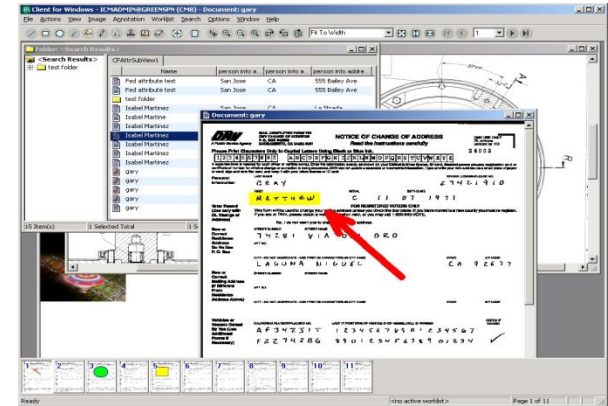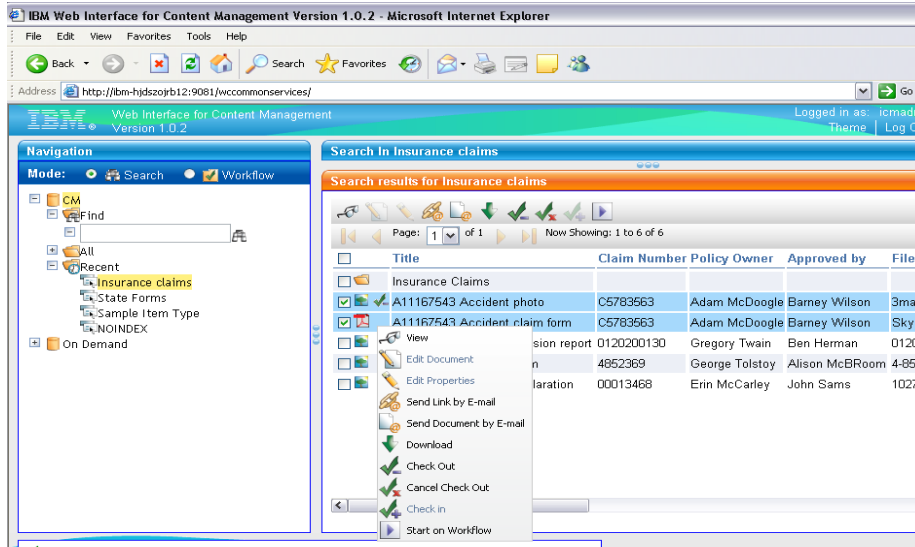
Java/Web (eClient)

WEBi (Web 2.0)

Common Interface to Content Manager and Content Manager OnDemand

Built with Open standards using latest WEB 2.0 AJAX technology

Allows for rapid deployment by simply delivering a URL

Easily configurable to adapt to your customer's needs

IBM WEBi 1.04 for Content Management

Features / Capabilities:
- **Add/Import Document Support**
- **Folder support**
- **Child Component Support**
- **Bookmarking of documents using viewer**

- **Single sign-on support with SPENEGO/Kerberos**

- **Ability to invoke select portions of the WEBi UI from a 3rd party application to**
  - Launch search
  - Launch viewer for document
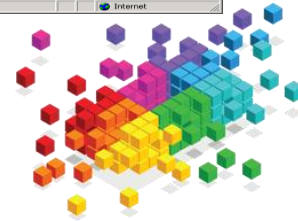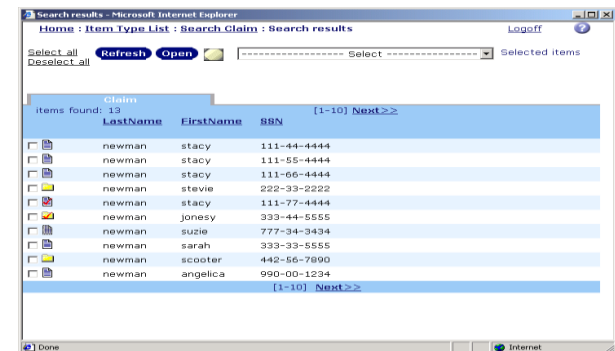 - Perform an action on a document: Check-in, check-out, open in app, etc.

- **Support for iWidgets for customization/expansion, including WEBi as a Widget**
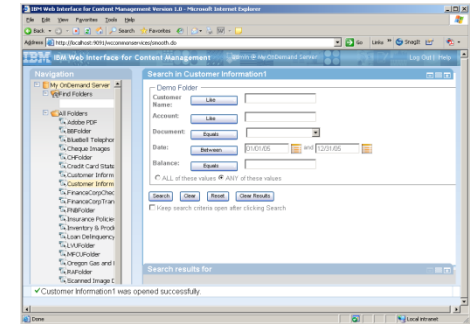
Benefits:

- **Client and partners can reuse parts of WEBi UI from Line of Business applications to enable select content management capabilities**

- **Simplifies configuration and administration to help lower costs without sacrificing performance & functionality**

- **Leveraging the single sign-on capability reduces the need for users to separately login to WEBi**
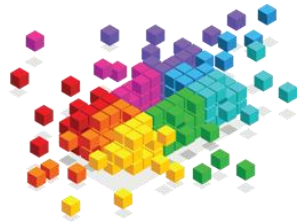
ECM Widgets - Rapid Assembly of ECM Solutions

- **Assemble ECM solutions by dragging and dropping ECM and 3rd party widgets in the easy to use mashup environment – no coding required!**

- **Provides role based views onto process in-baskets, content and process task details**

IBM ECM Widgets

A collection of Widgets and sample mashup pages

- **Web 2.0 UI components and mash-up framework for composing applications**
- **Based on iWidget standard allowing interoperability**
- **Home Page Widgets**
  - ECM Toolbar
  - ECM In-basket
  - ECM Process History
  - ECM WEBi
- **Helper Widgets**
  - ECM Launch Process
  - ECM Launch Process (eForm)
  - ECM Display Web Page

- **Step Processor Widgets**
  - ECM Header
  - ECM Work Data
  - ECM Work Data eForm
  - ECM Attachment
  - ECM Step Completion
  - ECM Viewer
  - ECM Content List
- **Utility Widgets**
  - Data Viewer
  - Web Site
  - Web Feed
  - Script Adapter
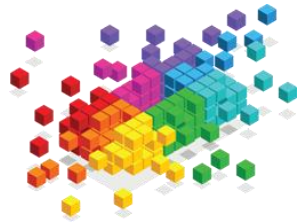
The context of social content management

Patterns

- Information is immediate
- Collaborative, ad-hoc processes
- Work is knowledge intensive
- Content is essential for decision making
- Outcomes are sustained
- Relies on smart people

KEY: Content awareness and action measured in hours to minutes

Challenges

- Content access anywhere
- Access and security
- Workflows & business process
- Content reuse / repurposing
- Archival & records management
- Federated searching
- Content lifecycles & single sourcing

KEY: Dynamic, cross-enterprise access, management and control

Solution

- Mobile social and content-centric apps (CMIS)
- Content management
- Web content management
- Mobile content access
- Messaging, file management
- Comprehensive document management
- Social collaboration
- Office collaboration

KEY: Integrated solutions to enable swift, collaborative outcomes
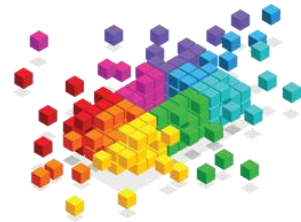
Social and Enterprise Content Management
A natural extension for the information Worker

- **Enabling Seamless Content Creation & Collaboration**

  - Leverage feature rich desktop productivity and collaboration tools for content creation

  - Organizations are confident that information workers are using secure content

- **Extending Collaborative & Web Content into the SOCIAL Enterprise**
  - Use familiar desktop and social environments to author, share and collaborate on content and discover relevant business information

  - Activates trusted office content so it can be accessed and updated anywhere, and improve office document classification, security and governance

  - **Supporting Open Standards**
  - Provides Web 2.0, CMIS, and Mashups/iWidgets application front-ends for rapid custom application development and for repurposing content to the web
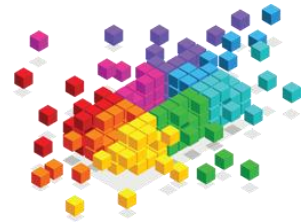
IBM Social Content Management
Improves Workforce Productivity and Reduces Costs

Desktop Integration

Email and Social Content

Mashups, Portal & Web Content Mgmt

Document Management and Workflow
Trusted Content Management, Information Governance,
Smart Archive, Compliance & Content Analytics

- High ROI via desktop/email applications → workforce productivity
- De-duplication of content for storage → cost savings
- Improved find-ability → timely actions
- Trusted content → informed decisions
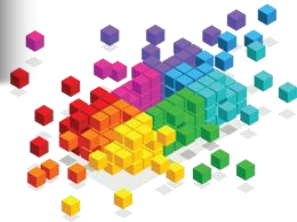
ECM and Lotus Quickr

Bridging the gap between content and collaboration

- Conduct the "messy business of collaboration" in Lotus Quickr, and leverage the strengths of ECM when/where appropriate

- Collaboratively author content in Quickr, use integration with ECM to:
  - participate in BPM process
  - deal with compliance issues – apply record retention policy
  - store as an enterprise asset

- All in an intuitive Web 2.0 interface
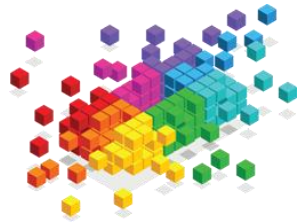
Quickr ECM Desktop Connectors

- Direct access to both Quickr and ECM systems via Quickr connectors

- Easy to create, share and collaborate using Lotus Quickr connectors
  - Microsoft Office, Microsoft Outlook Windows Explorer, Lotus Notes, Lotus Sametime, Lotus Symphony

- Provide basic content operations as a natural extension of popular applications
  - Check-in/out, Round-trip editing, Versioning, Send/Copy Links, View/Edit Properties, Approve/Reject, Publish Draft, Create from Document Type

Quickr Web services

Quickr Web services on P8
P8 API's
FileNet P8

Quickr Web services on CM8
CM8 API's
CM8
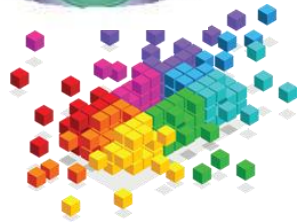
Microsoft Office Connectors

Facilitates collaborative document authoring and version management…

- Open and save documents into library or team workspace

- Assign document properties (meta-tags)

- Integrate with workflow for approval routing

- Use your editor of choice (no forced upgrade)

Support includes Notes 8, Office 2003, Office 2007, Outlook 2007, Windows Explorer, Sametime, Open Office
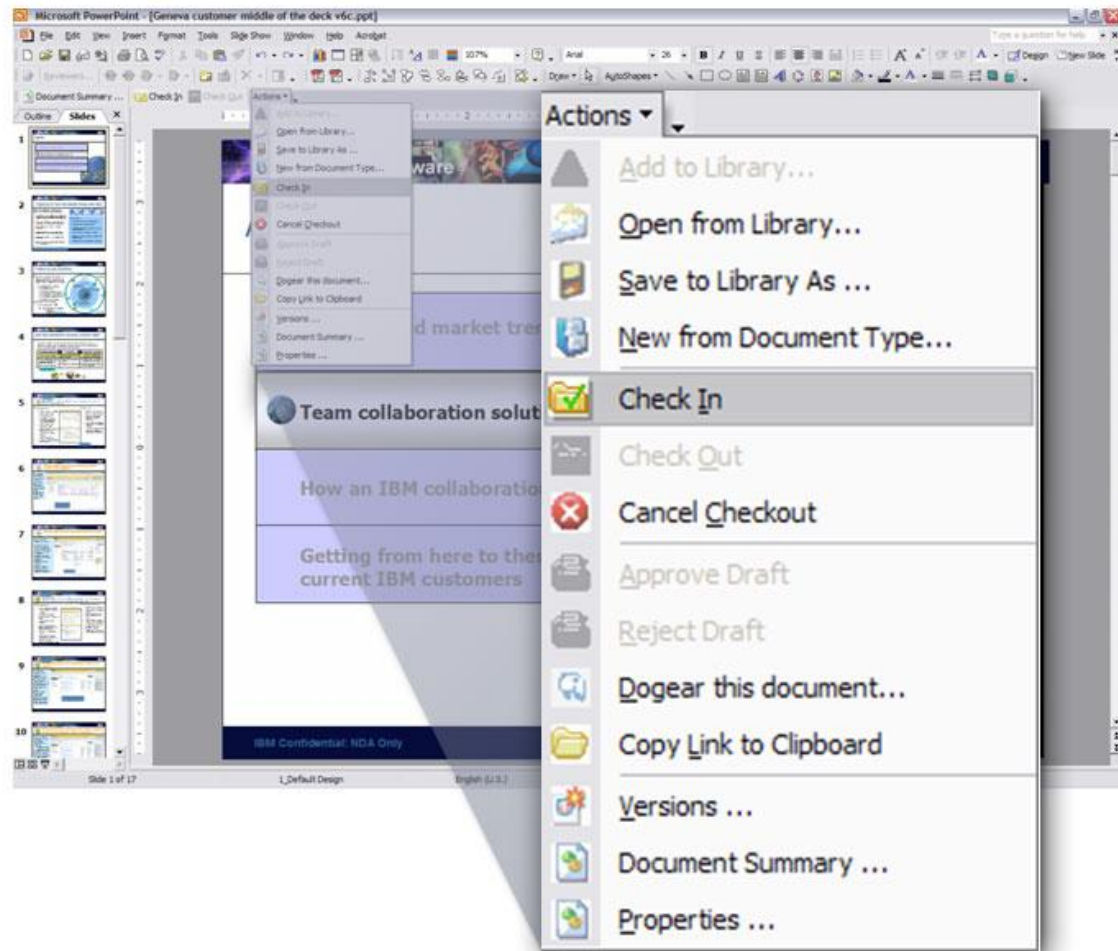
Integration: IBM ECM and IBM Content Manager

IBM CONTENT MANAGER

Active Content

Lifecycle Management

Library Services

Document Routing

Image Management

Search

Security & Access Management

Multimedia Streaming

APIs
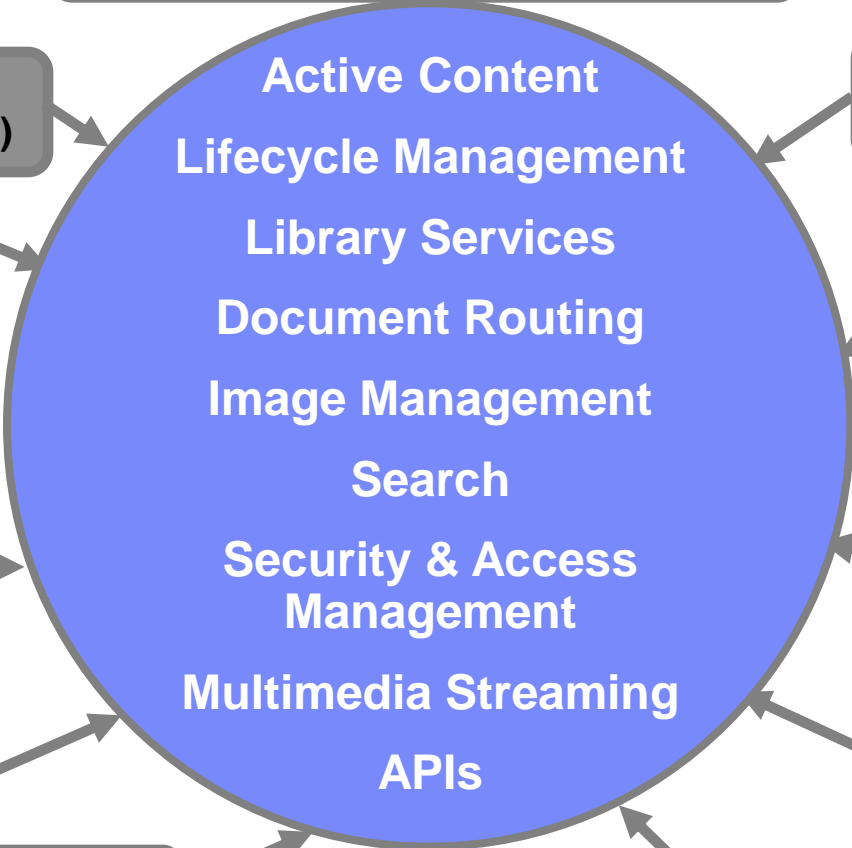
Document Management (IBM Document Manager)

Records Management IBM Records Manager FileNet Records Manager

Archiving (IBM Content Connector)

FileNet P8 BPM

ECM Dashboard

Report & Distribution (CM OnDemand)

eDiscovery

Enterprise Search (OmniFind)

Lotus Quickr

Quickr Desktop Connectors
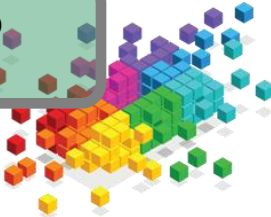
IBM Content Integrator

- SOA integration platform for "content"

- Real-time interface to disparate content sources

- Many OOTB connectors and toolkit for custom connectors

- Two-way access to expose underlying functionality

- Adds cross-repository services such as federated search, content transformation, etc

CALL CENTER | CRM | SELF-SERVICE | COMPLIANCE | WEBSITES

Content Integrator
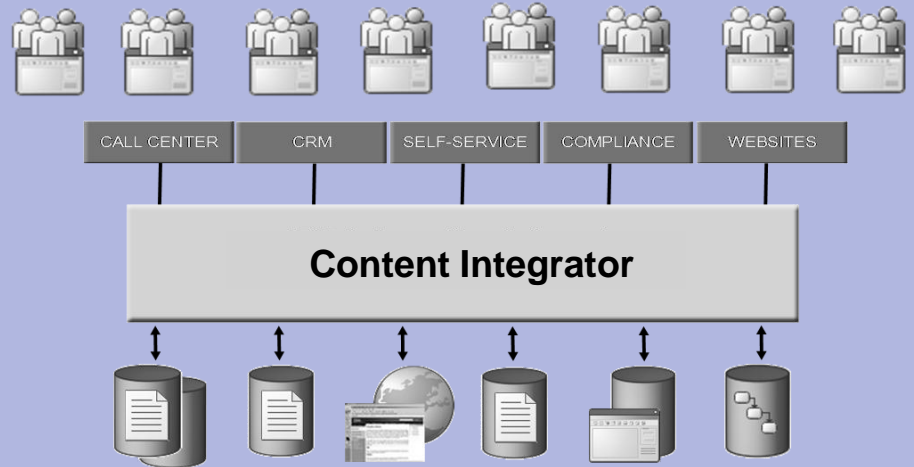
Lets you work with content from multiple, disparate content sources as if it were stored in one unified system

EMC/Documentum Content Server, IBM FileNet Content Services, IBM FileNet Image Services, IBM FileNet P8, IBM FileNet Business Process Manager, IBM Content Manager, IBM Content Manager OnDemand, IBM Portal Document Manager, Lotus Domino Document Manager, IBM Lotus Notes, IBM WebSphere MQ Workflow, Microsoft Index Server, Microsoft Windows SharePoint Services, Open Text Livelink Enterprise Server, Open Text Hummingbird DM, File Systems, Lab Services and Partner Connectors
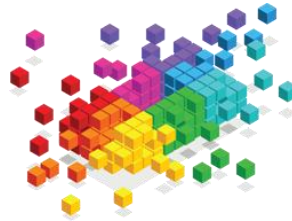
Enterprise Records Management

Records Federated Services:

- **Records management of ECM documents**
- **Single, consistent platform for policy-based records management**
- **Enable a single record plan to control multiple disparate repositories**
  – Unified records policy
  – Unified set of records destruction rules
  – Documents remain in IBM CM
  – DoD 5015.2 Certified - Chapters 2 & 4

P8 Records Manager								
Content Manager	Image Manager AE	Business Process Manager	Business Activity Monitor	Forms Manager	Business Process Framework	Records Manager	Email Manager	Records Crawler

FileNet P8   **FileNet IS**   **FileNet CS**   **OTEX**   **DCTM**   **IBM CM8**   **IBM OnDemand**

IBM Content Collector

Source Connectors

- Lotus Domino
- Microsoft Exchange
- File system
- SharePoint
- . . .
- Custom Connectors

Task Connectors

- Copy Move Delete Stub
- De-Duplication
- Text extraction
- Records Declaration & Classification
- . . .
- Custom Task Connectors

FileNet P8 CM

Content Manager 8

Target Connectors

Content Manager 8 and SharePoint

- IBM Content Manager as **robust enterprise-wide repository** behind departmental SharePoint Sites

- Team collaboration within SharePoint - familiar UI for business users

- Move/copy/stub documents

- Enabling archiving, records and retention management, business process management, …

- "Sweeping" of pre-existing SharePoint site content

- Auto discovery of new SharePoint sites

- Single sign-on
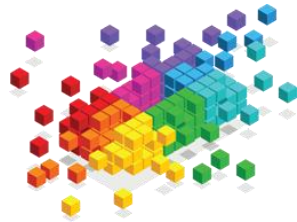
Datacap Overview

A best-of-breed provider of sophisticated technology for document capture and high speed data extraction, with 22 years of experience.

Datacap
an IBM® Company

- A Tarrytown, New York-based provider of advanced document capture technology.

- Award-winning, Best-of-Breed leader in Document Capture technology

- Impressive record of innovation

- Strengthens IBM's leadership in the enterprise content management (ECM) space -- specifically around imaging and document capture

- Datacap products are used in a wide variety of industries (including financial services, insurance, government, consumer products, transportation and publishing) with applications that automate a broad range of business processes

- Allows organizations to quickly and easily capture and extract key information from documents and convert it to images that are stored electronically
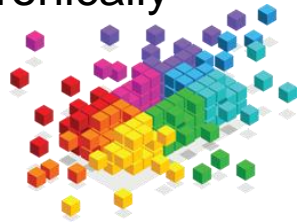
Datacap already supports IBM Content Manager

- IBM can now be your single vendor for Imaging!
  - A unified ECM solution versus multiple products from multiple vendors
  - Simplify support and relieve the burden of integrating multiple products, resolving issues and coordinating upgrades.
  - Easy, rapid deployment and faster time-to-value
    - We offer more complete, business-focused solutions that are not available from other vendors.
  - Best-of-breed Capture capabilities that put us ahead of other standalone Capture vendors technically; both functionally and in the underlying architecture

- IBM offers you a lower total cost of ownership.
  - No volume-based pricing
  - Advanced features are already included in the base product
  - With our ECM software, customers are entitled to DB2 licenses at no additional charge

- Capture capabilities now available directly from IBM
  - Batch Capture for all ECM repositories
    - High-volume production document scanning, recognition, data extraction
  - Industry Solutions for Image Forms Processing
    - AP invoices, SAP integration, health records, patient claims, medical claims …
    - Accelerates time-to-value
  - In-Process Capture
    - Real time and cost effective way to capture at the source (distributed, front-office, or web)
    - Ad-hoc capture of documents driven by the business process
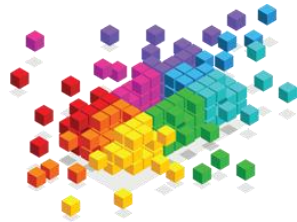
IBM Content Manager Version 8.4.2 on z/OS

- **Content Manager 8.4.2 on z/OS New Features:**
  - Content Indexing and Full text-search support
  - High volume batch ingest utility
  - Resource Manager Asynchronous Delete enhancements
  - Improved Consumability and Serviceability

- **Feature Benefits:**
  - z/OS users now be able to search for documents using keywords or phrases from the content in addition to their attributes
  - BPM solutions can deliver additional value without additional development
  - High speed ingest enables the efficient addition of large volumes of documents to the repository
  - Improved management for large volume deletions
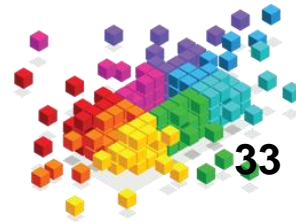
CM 8.4.2 z/OS Text Search Support

- **Search Support on z/OS - Finally!**
  - DB2TS based Search Engine
  - New Search Syntax
  - Generated SQL contains() and score() functions
  - CM Advanced Search functions added
    - contain-text-db2ts() and score-db2ts()
    - Now supports a third parameter

- **What hasn't changed from previous (EE) support**
  - Attribute Search and other Query feature
  - Basic Search Syntax
  - Majority of the functionality of our Clients
  - Score functionality
  - C++ - z/OS Search not supported in this release

Full Details found in the DB2 V9.1 InfoCenter

- http://publib.boulder.ibm.com/infocenter/dzichelp/v2r2/index.jsp?topic=/com.ibm.db29.doc.srchz/srchz_argumentsyntax.htm
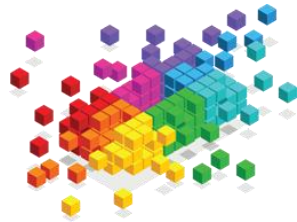
CM 8.4.2 z/OS Text Search

- **Text Search Options dialog**
  - Supported formats are TEXT, HTML, XML, and INSO
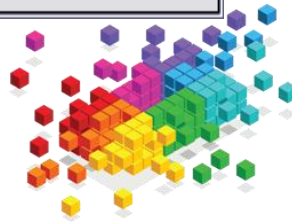 - Supported CCSIDs and languages are any supported by Omnifind and z/OS
  - User defined function 'ICMFETCHFILTER' is not needed, therefore not supported
  - Any UDF, CCSID or language can be entered on the dialog
  - Advanced update frequency can be any frequency string accepted by DB2 text search. Format is:

    |--<minute>--<hour>--<dayOfMonth>--<monthOfYear>--<dayOfWeek>-

- Examples:
  - **Every 10 minutes, from 9 a.m. to 5:50 p.m., every day**

    ***/10 9-17 * * ***
  - **Every quarter hour on the even hours between 8 a.m. and 6:45 p.m., from Monday to Friday every month of the year:**

    0,15,30,45 8-18/2 * * 1-5

Text Search Options:

Copy settings from: * DEFAULT SYSTEM *   Load

Format:

Index language settings
CCSID:
Language code:

User defined function
User defined function name: ICMfetchContent
User defined function schema:

Index update settings
Changes before update:
Commit count:
Update frequency:
● Basic
Update every: Hours
○ Advanced

OK   Cancel   Apply   Help

CM 8.4.2 z/OS Text Search Configuration

- **Administration**
  - Content Manager System Administration client supports new text search feature on z/OS
  - Options are similar to NSE indexes

- **z/OS text search options dialog**
  - Enables administrator to set options for a text index on z/OS
  - Similar features and functions to NSE indexes
  - Library Server will use default values for omitted fields
  - Advanced update frequency field lets administrator set any frequency supported by text search engine, providing more flexibility for administrators

CM 8.4.2 zOS High Volume Batch Load Utility
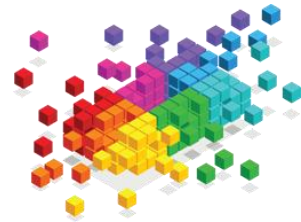
- Provides batch loading capability for any item type defined in IBM DB2 Content Manager for z/OS
  - Consists of a set of object modules, load module, sample jobs and procedure enable customers to:
    1. Generate batch load program for any given item type
    2. Get the layout requirement to prepare IDXDATA and OBJDATA files
    3. Execute the generated batch load program to load documents and base object into CM for the selected item type

CM 8.4.2 zOS Batch Ingest Utility Fundamentals:
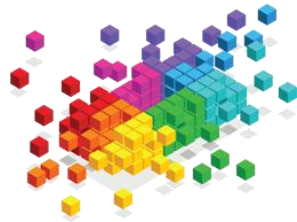
- **Batch Ingest Utility Features:**
  - Supports:
    - any given item type: with or without child component, any attribute type, attribute group
    - the following item type features: auto-linking, auto start process, event logging
    - one part, multiple parts, or no part items
    - parallel processing
  - Does not require user to customize source code to generate batch load program

- **Current Limitations of the Batch Ingest Utility:**
  - Supports loading document meta data and base part objects only into z/OS LS & z/OS RM using OAM in same LPAR
  - No replication will be performed
  - No Library Server user exits can be called
  - No events are generated for BPM integration
  - User data not validated: Attribute value, mime type, cardinality, object
  - Program size, input record size, input file size limited by system resources
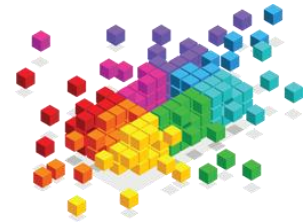
CM 8.4.2 zOS Asynchronous Delete Enhancements

- **The Asynchronous Delete job of the Resource Manager on z/OS as been improved in order to**
  - Allows users with massive numbers of items to be deleted to
    - Prioritize item deletions based on Collection names
    - Delete items from different Collections in parallel (multi-threaded)
  - Implement a more convenient way to stop at the end of batch windows

- **These are new <u>advanced</u> and <u>optional</u> features**
  - No changes necessary if not exploiting them
  - To leverage the z/OS Asynchronous Delete job enhancement:
    - Customize the job in order to specify a set of target collections
    - As the job executes, it will only delete items which are part of the target collection set
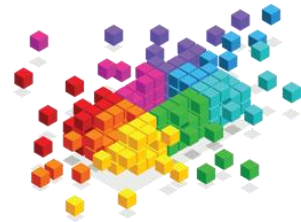
- **Optional Features:**
  - Delete from a Collection List
    - Each job can receive a list of Collections it will process
    - Jobs may be executed in parallel
    - Jobs may be executed serially
    - Parallel and Series may be combined!
  - Stop Time: Job stops gracefully at the given Stop Time
    - Specified as "HH:MM", e.g. "08:00" for 8 AM
    - It actually "starts to stop" at the specified time:
    - Combine with JES2 or other mainframe scheduling

CM 8.4.2 on zOS: Additional Enhancements
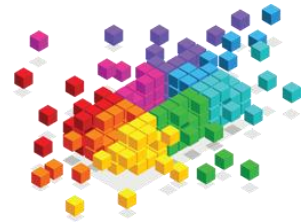
- **Performance**
  - eClient connection pooling
  - Java API global cache

- **Consumability**
  - Toolkit support for multi-servers with ICMCONFIG
  - Library Server Component Table Space Management

- **Serviceability**
  - Logging/trace enhancements (SysAdmin)
    - Trace enable/disable support in the Sys Admin for z/OS resource manager
  - OAM, DB2 Message enhancements
    - Detailed OAM / DB2 Messages for z/OS Resource Managers