Does ECM still matter?

Craig Rhinehart and Phillip Jones, IBM Enterprise Content Management Team

The business value of ECM

....connecting with Executive goals
Change, change and still more change

- Organizations were undergoing fundamental changes well before the financial crisis started
- Pressures in the global economy continue to drive new business models
- The pace of change is increasing – the challenges are becoming more... challenging
- How are business leaders dealing with all of this?

CFO study 2010
1,900 interviews

CEO study 2010
1,500 interviews

CIO study 2009
2,600 interviews
What are your executives focused on?

**Become more creative and innovative**
- Creativity is the top leadership quality
- Drive change to stay ahead of market
- Expand our communication channels
- Break with status quo (industry, business and revenue models)

**Increase our responsiveness and flexibility**
- Simplify operations and products
- Shift to iterative approaches (make quicker decisions - execute with speed)
- Increase agility by integrating globally and exploit partnering

**Reinvent our Customer relationships**
- Get closer to customers (*top theme*)
- Better understand our what customers need
- Deliver unprecedented customer service
CIOs of **high-growth organizations** focus on innovation

**Using IT as a competitive weapon**

- **Integrate business and IT** to innovate new approaches
- Proactively reaches out to the business to co-create and champion innovation
- Has a clear view of the top technological priorities that will enhance competitiveness

“**I actively reach out to the business to co-create and champion innovation**”

“**I spend time collecting innovative ideas**”

“One of the things we try to do is define innovation. It is the ability to generate a lot of diverse ideas to address a particular need. Then we distill it into an actionable plan that results in business improvement”

Energy and Utilities CIO, U.S.

“**Innovation should be based on practical technology that can deliver business objectives within reasonable time and cost, which can be absorbed by the business.**”

Life insurance CIO, India

Low and high growth CIOs give reference to the context in which they operate: an environment characterized by low versus high profit before tax growth. For more information – see the CIO study 2009
World-class companies focus on simplifying their operations and standardizing processes

Changes to operating strategy: Simplify

- Others: 47%
- Standouts: 61%
- More: 30%

“Simplification and standardization are key strategies that we have been using for several years to reduce existing and future complexity.”

Brenda Barnes, CEO, Sara Lee, United States

“When things look very simple, you need to look for a competitive edge. When things are complex, you simplify to get the competitive advantage”

Graeme Liebelt, Managing Director and CEO, Orica Limited, Australia

Source: Q18 How will you change your operating strategy? Manage complexity versus simplify n=294
Organizations are using ECM to **standardize and simplify** in these ways

**SMART IS ... ELIMINATING PAPER**
A large U.S. federal agency saves more than $1.3 billion annually by eliminating paper.

**SMART IS ... GOVERNING AND DEFENSIBLY DISPOSING OF INFORMATION**
JM Family Enterprises saves $2.1 million annually by reducing costs.

**SMART IS ... IMPROVING CONTENT-CENTRIC WORKFLOWS**
J.B. Hunt added $870K annually by more accurately charging customers.

**SMART IS ... RAPIDLY DERIVING CONTENT INSIGHTS**
A large U.S. bank achieved ROI on content analytics in 7 months.

**SMART IS ... LOWERING LEGAL RISK AND COST**
BASF implemented more cost-effective governance.
ECM has changed

Smarter content management
Content in a shared services model, delivered in context to specific business users and processes, driving faster insight and action

Traditional content management
Content locked in multiple, siloed repositories, driving uncontrolled proliferation, inconsistent access, and mounting costs and risks

Infrastructure-led approaches
Siloed, departmental management
Manual, inefficient processes
“Keep everything” governance model
“Search and hope” user experience

Business solution-led approaches
Collaborative, shared services model
Optimized, dynamic processes
Policy-based information lifecycle
Analytics- and people-driven insight
IBM Enterprise Content Management

Imaging and capture *have never mattered more*

**Document imaging & capture**
- Document capture automation
- Production imaging
- Enterprise report Management

**Social content management**
- Office document management
- Social content & collaboration
- Platform standardization & consolidation

**Advanced case management**
- Comprehensive case management
- Integrated collaboration and rules
- Case analytics
- Content-centric BPM

**Information lifecycle governance**
- Smart archive
- Records management
- eDiscovery
- Disposition & governance

**Content analytics**
- Content analytics and assessment
- Enterprise search
- Classification / tagging
- Master content
- Watson
Solutions for document automation

Delivers real business results

- Reduce cost of transporting paper
- Reduce data entry labor costs
- Extract data from documents without manual keying
- Reduce paper sorting and document preparation
- Replace obsolete or costly legacy systems
- Reduce license fees, support and maintenance costs
- Enable case management, governance and eDiscovery

Paper

- Labor intensive
- Inactive

Email

- Regulatory control
- Policy enforcement
- Attachments

Office documents

- Access and visibility
- Manageability

Datacap

- Best-of-breed technology for capture automation and recognition
- Expertise in a wide variety of industries and solutions: accounts payable; explanation of benefits, tax and more
IBM Production Imaging Edition

Combine the power of advanced capture and scale of ECM

Delivers real business results

- Manage entire lifecycle of document images
  – From Capture through ECM
  – Imaging-centric workflow management to Image viewing, annotation and redaction
  – Scale from distributed locations, at a departmental level, to enterprise wide deployments

- Perform for billions of document images, and tens of thousands of users

- Cut costs and improve productivity

“Imaging solutions represent a low-risk, high-value investment that can be extended through an enterprise.”
— Forrester, 2010
IBM Enterprise Report Management

Content Manager onDemand for high volume print output: e-capture and e-presentment

Delivers real business results

- Improved customer responsiveness
- Web access: to print/paper documents, 24x7
- Improved customer self-service
- Reduced printing costs and paper use: go green
- Avoid storing print/paper documents
- Replacement of legacy systems

“Reduced costs for printed customer bills saving $25 million annually. Increased small business customer satisfaction and gained $750,000 in promise-to-pay revenue during initial six months of operation”

— Large telco company
Global Logistics Company

Smart is: improving productivity and service

Industry context: transportation
Value driver: improve productivity, service
Solution onramp: document imaging / capture

Business Challenge
150,000 documents arriving every day from every source – mail, fax, email - and piling up rapidly as company prepared customs paperwork for shipments. Customs has many requirements for complete declaration at border crossing.

What’s Smart?
Deployed seven imaging applications enabling faster order processing with fewer errors
Process ~600,000 pages per day in U.S. (~3,000 users) and expect to process ~4 million pages per day (~10,000 users) globally.

Smarter Business Outcomes
Company is able to move more shipments across borders with 30% less resources with reduced lost documents and data errors while also improving cycle times and accuracy.
CIOs of high-growth organizations are finding new ways to communicate and collaborate

“Collaboration causes innovation.”
Electronics CIO, USA

“Using higher order collaborative tools can be quite smart and lower costs – for example, collaborative planning and forecasting for retail.”
Retail Industry CIO, UK

More actively using collaboration to drive innovation

Realize change through deployment of collaborative and communication tools

Low growth CIOs  High growth CIOs
IBM Enterprise Content Management

Managing social and collaborative content is becoming a hot topic

- **Document imaging & capture**
  - Document capture automation
  - Production imaging
  - Enterprise report Management

- **Social content management**
  - Office document management
  - Social content & collaboration
  - Platform standardization and consolidation

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Organizations are looking to get value from new communities

500 billion impressions annually made about products and services

770 million people worldwide visited a social networking site

44x information growth by 2020

Public Social Media

Conversations about quality, experience, price, value, service ...

- Forums and Newsgroups
- Wikis, Blogs and Microblogs
- Social Networks
- Social Media News Aggregators

Corporate Social Business

Conversations about strategy, projects, issues, risks, outcomes ...

In addition to conversations about quality, experience, price, value, service ...

- Wikis, RSS and Forums
- Email and Collaborative Content
- Call Center Notes and Recordings
- Customer and Employee Surveys
- Reports, Minutes and Research

Challenges of social business and content

Changes in how we communicate impact how we manage content

Business Challenges

- Workflows & Business Processes
- Content Reuse and Repurposing
- Archival & Records Management
- Federated Searching
- Content Lifecycles & Single Sourcing
- Maintaining Corporate Compliance
- Retention & Long Term Storage
- Maintaining Corporate Taxonomy
What is 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

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

Solution
- ECM access from business productivity tools
- Open social and content-centric apps (CMIS, ACM)
- Putting social content under management
- Comprehensive document management options
- Social business tools with integrated ECM services

KEY: Content awareness and action measured in hours to minutes
KEY: Dynamic, cross-enterprise access, management and control
KEY: Integrated solutions to enable swift, collaborative outcomes
IBM approach to social content management

Office document management
- Comprehensive options, access and control from business productivity tools
  - IBM Lotus, Microsoft Office and others

Content collaboration
- Integrated social and content-centric applications enable enterprise collaboration
  - IBM and Microsoft collaboration, CMIS support, advanced case management, content collection

Social business tools with shared ECM services
- Unified, secure, scalable platform (with repository of record) extends social content to enterprise
  - New in IBM Connections 3.0.1
‘Getting closer to the customer’ is THE top priority for standout organizations

“Where I will focus over the next 5 years”

<table>
<thead>
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<th>Dimension</th>
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<th>Standouts</th>
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<tbody>
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<td>83%</td>
<td>95%</td>
</tr>
<tr>
<td>Employee skills</td>
<td>81%</td>
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<td>Insight and intelligence</td>
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<td>Enterprise model changes</td>
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“Getting closer to customer”  

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51%

“Where I will focus over the next 5 years”

“To surprise customers requires unexpected ideas through interactions of people with diverse perspectives.”
Shukuo Ishikawa  
President and CEO, NAMCO BANDAI, Japan

“Our customers want personalization of services and products. It is all about the market of one.”
Tony Tyler  
CEO, Cathay Pacific Airways, Hong Kong

Source: Q13 Which of the following dimensions will you focus on more to realize your strategy in the new economic environment over the next 5 years? n=1523, n=303
IBM Enterprise Content Management

Case management helps get you closer to your customer

**Document imaging & capture**
- Document capture automation
- Production imaging
- Enterprise report Management

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- Office document management
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**Content analytics**
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Case management in every industry

Although a “case” may be expressed differently depending on your business ...

- Insurance
  - Policy
  - Underwriting
  - Claim
  - Annuity
  - ...

- Banking
  - Loan
  - Mortgage
  - Account
  - Credit Card
  - ...

- Healthcare
  - Patient case
  - Claim
  - Member
  - Provider
  - ...

- Government
  - Grant
  - Court case
  - Citizen
  - Tax payer
  - ...

- Energy & Utilities
  - Rate Case
  - Permit
  - Land
  - Property
  - ...

Invoice, Contract, Employee, Vendor, Customer, Project, Change Request, Complaint, Exception, Incident, Audit, Electronic Discovery, etc...

... a common pattern of challenges exists across all industries
IBM Case Manager

Simplifying the delivery of case-based solutions

- Optimizes case handling
- Supports dynamic, runtime work management
- Delivers trusted information to the case – structured or unstructured
- Manages and governs entire case lifecycle
- Provides the line-of-business with tools to rapidly deliver case-based solutions
Rapid application **case design** for the business

- Easy to use, “Interview Mode” (wizard-driven)
  
  *Case designer allows a business user to very quickly build a solution*

- Comprehensive across case assets
  
  *Case designer can provide 360° view of case*

- Leverage templates for a fast start
  
  *Represent industry best practices*

- Significantly shortens time-to-value for case-style applications

**Bottom line:**
Deliver end users the solution in a fraction of time of other approaches
Case worker user experience

- **Role-based and personalized**
  
  *End user gets exactly the information they need to progress the case*

- **Flexible and extensible**
  
  *Can be configured to meet unique business requirements*

- **Provides deep context for case work**
  
  *No more disjointed jumping between application*

  *Brings people, process and information together to drive case progression and better outcomes*

**Bottom line:**
A case worker has all the information they need to improve case outcomes
Powerful analytics for better case outcomes

- Comprehensive reporting and analysis
  
  *Gives case managers visibility across all information types to assess and act quickly*

- Real-time dashboards
  
  *Understand issues before they become a problem*

- Unique content analytics for discovering deeper case insight

**Bottom line:**
Case managers need insight in order to impact results.
Smart is: improving customer service

Industry context: automotive
Value driver: improve customer service
Solution onramp: advanced case management

JM Family

“The major business objectives in our organization are excellence in customer service and increased productivity of our associates. IBM ECM is a key enabler of these objectives.”

— Keith Tempinski, Director, Enterprise Content Group, JM Family Enterprises, Inc.

Business Challenge
Lack of visibility into customer service interactions around automobile loans and leases
Bottlenecks due to many audits in approval steps

What’s Smart?
Customer service associates focused on exception-based processes, with greater knowledge sharing across departments

Smarter Business Outcomes
$2.1 million annual call center labor savings. Processes cut from days to just minutes. Handle more loans with current resources. Eliminated annual printing of 168k pages for cost savings and environmental benefits.
CIOs of high-growth businesses are looking to implement a strong information governance model

High growth CIOs proactively craft data into actionable information

“We do recognize the strategic advantage of using data to support improved decision making. We are not as strong as we would like to be, but this is a key plank of our strategy moving forward.”

Consumer products CIO, Ireland

High growth CIOs add value by having a strong data governance model in place

"Having a strong data governance model is a strategic area on the roadmap; Having a single view of the truth through accurate data is a strategic imperative.”

Financial Markets, CIO, U.S.

High growth CIOs add value by proactively suggesting better ways to use data

“The implementation of BIO's (Business Info. Officers) within the business units are improving the use of data as there is a natural interface within the business units towards central IT.”

CIO, Sweden
IBM Enterprise Content Management

Effective information governance has never mattered more

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29
Why is information governance a problem?

98%
Companies that cite defensible disposal as key driver behind their governance programs

$3M
Average cost to collect, cull and review information per legal case

22%
Companies that can defensibly dispose today

70%
Portion of information unnecessarily retained

17%
Amount of IT budget spent on storage

44x
Projected information growth, 2009-2020

Source: CGOC Benchmark Report on Information Governance, October 2010


© 2011 IBM Corporation
Information has an important lifespan requiring governance

Almost all is born digital ... and the rest should become digital

90% Born Digital

95% Expires

Almost all has a retention policy ... very little should be kept forever
IBM Information Lifecycle Governance

- IBM ILG includes solution sets for legal, IT and RIM stakeholders:
  - Smart Archive solution for IT
  - eDiscovery Management solution for Legal
  - Records and Retention Management solution for Records and Information Managers
  - Disposal and Governance Management solution for the CIO

- A recognized leader in legal information governance and legal holds pioneer
- IBM now delivers the industry’s most comprehensive solution to information lifecycle governance
Thomas Miller Group

Smart is: reducing storage space by 60%

“IBM’s e-mail management offerings provided us with the stability and functionality that we needed to address and meet our e-mail archiving, retention and compliance regulatory requirements.”

— Rashid Mahmood, Lotus Notes Systems Manager, Thomas Miller Group

Industry context: insurance
Value driver: improve process efficiency
Solution onramp: info. lifecycle governance

Business Challenge
Industry and government regulations and legal discovery drove the need for a more effective method of managing, retaining and producing electronic information in a timely manner.

What’s Smart?
IBM Smart Archive solutions provide e-mail archiving and retrieval, and manages growth for any Notes database or server platform. IBM Content Manager manages all e-mail content across multiple platforms, databases and applications.

Smarter Business Outcomes
• About 30,000 daily emails and attachments are indexed and archived for rapid retrieval, including 23 million emails retroactively archived and eDiscovery ready.
• Deep compression and single instance storage functionality reduced storage space by 60%.
• Users benefit from unlimited mailbox management.
Before, it could take up to five days to get a file from our records department. Now staff can access documents at the click of a button.”

— Jim Mazurowski, Supervisor Information Solutions, PPL

Smart is: knowing what to keep

Industry context: energy and utilities
Value driver: reduce costs, improve compliance
Solution onramp: info. lifecycle governance

Business Challenge
PPL wanted to minimize the risk and costs associated with records, plus improve document retention for regulatory compliance and information governance.

What’s Smart?
PPL addressed their e-mail and records retention requirements by properly capturing, consolidating, storing and managing content across its lifecycle, enabling compliance staff to find trusted, contextually relevant information in a single retention record.

Smarter Business Outcomes
The IBM solution reduced time to access records from up to five days to just seconds, enabled a 75% decrease in time to compile information for new projects, and helped staff retain critical documents to meet regulatory requirements.
CEOs want to exploit the information explosion to better understand and serve customers

Focus on deriving new insights and intelligence from information to help realize strategy

66% 78% +18%

Other CEOs Customer focused CEOs

“Insight and foresight are linked with leadership. It's insight that helps to capture opportunity.”

Zhou Ming, Executive VP and Secretary General, China Council for Int’l Investment Protection China
IBM Enterprise Content Management

Content analytics is helping *make sense of business information*

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The Next Grand Challenge
Content analytics and **Watson**

- **Natural Language Processing (NLP)** is the cornerstone to translate interactions between computers and human (natural) languages
  - Watson uses **IBM Content Analytics** to perform critical NLP functions

- **Unstructured Information Management Architecture (UIMA)** is an open framework for processing text and building analytic solutions
  - Several IBM ECM products leverage UIMA text analytics processing:
    - IBM Content Analytics
    - OmniFind Enterprise Edition
    - IBM Classification Module
    - IBM eDiscovery Analyzer
Unlock valuable insight from content

What our clients are doing with Content Analytics

Understand what customers want before they ask.

Detect fraudulent claims before they are paid.

Dynamically deploy resources to the areas of greatest threat.

Save lives by quickly identifying critical safety defects.

Are you unlocking the value of your unstructured content?
Going from raw information to rapid insight
Uncover business insight through unique visual-based approach

Aggregate and extract from multiple sources
... to form large text-based collections from multiple internal and external sources (and types), including ECM repositories, structured data, social media and more.

Organize, analyze and visualize
... enterprise content (and data) by identifying trends, patterns, correlations, anomalies and business context from collections.

Search and explore to derive insight
... from collections to confirm what is suspected or uncover something new without being forced to build models or deploy complex systems.
IBM Content Analytics is a platform to derive new insights

- Transform raw information into **business insights** without building models or deploying complex systems.
- Derive insight in **hours or days** ... not weeks or months.
- **Easy to use** for all knowledge workers to **search** and **explore** content.
- **Flexible and extensible** for deeper insights.
Business Challenge
Adopt a customer-oriented business strategy to offer highly satisfying products and services based on real voice of customers (VoC).

What’s Smart?
They process call center notes and customer emails to detect likely candidates for customer churn. A rules-based text analysis engine in IBM Content Analyzer detects the customer churn candidates. An alerting engine then automatically sends reports to a department that deals specifically with customer churn situations.

Smarter Business Outcomes
Improved rates for model and service upgrades to loyal customers. Started new Premium Club points program based on VoC. Set initial parameters of mobile phones based on VoC.
A Statistical Approach to Mechanized Encoding and Searching of Literary Information

Abstract: Written communication of ideas is carried out on the basis of statistical probability in that a writer chooses that level of subject specificity and that combination of words which he feels will convey the most meaning. Since this process varies among individuals and since similar ideas are therefore relayed at different levels of specificity and by means of different words, the problem of literature searching by machines will present major difficulties. A statistical approach to this problem will be outlined and the various steps of a system based on this approach will be described. Steps include the statistical analysis of a collection of documents in a field of interest, the establishment of a set of “notions” and the vocabulary by which they are expressed, the compilation of a thesaurus-type dictionary and index, the automatic encoding of documents by machine with the aid of such a dictionary, the encoding of topological situations (such as branched structures), the recording of the coded information, the establishment of a searching pattern for finding pertinent information, and the programming of appropriate machines to carry out the search.

1. Introduction

The essential purpose of literature searching is to find those documents which is a collection which have a bearing on a given topic. Many of the systems and devices, such as classifications and subject-heading lists, that have been developed in the past to solve the problems encountered in this searching process are proving inadequate. The need for new solutions is at present being recognized by the rapid growth of literature and the demand for higher levels of searching efficiency.

Specialists in the literature searching field are optimistic about the future application of powerful electronic devices in obtaining more satisfactory results. A successful mechanical solution is unlikely, however, if such modern devices are to be viewed merely as aids for accelerating systems heretofore fitted to human capabilities. The ultimate benefits of mechanization will be realized only if the characteristics of machines are better understood and systems are developed which exploit these characteristics to the fullest. Rather than subdivide the general classification schemes now in use, new systems

be found in automation, there is a real danger that the demand for professional tools will become too great to fill. In view of the foreseeable strain, the most efficient use of talent will have to be made even by automatic systems. The operating requirements of these systems will, above all, have to be well adapted to the degree of education and training of generally available personnel.

Language difficulties, too, will have to be met. The problems stemming from the many volumes of literature to be searched are being continually aggravated by the increasing accumulation of foreign-language documents that require consideration on an equal level with domestic material. To be of real value, future automatic systems will have to provide a workable means of overcoming the language barrier.

*Complexity levels of information systems*

The general terms in which the problem of literature searching has been stated might indicate the possibility of a general, or universal solution. It would be unwise to expect that all complexity involved in the search for information will necessarily be reduced to a single level. A hierarchy of complexity, however, can be considered in terms of the characteristics of the search, which may range from the high order, with documents to be searched being considered at the same level, to the low order, where documents are searched on the basis of bibliographic characteristics.
IBM is reinventing customer relationships

IBM Smarter Commerce

Chief Sourcing & Procurement Officer
“Right Product, Right Place, Right Time, Right Price”

Sourcing, controlling and procurement of goods and services

Market
Targeted and personalized marketing across all customer interactions

Customer Insight

Sell
Selling and fulfillment of products and services across all channels

Service
Servicing customer needs across all interaction channels

Buy

Chief Marketing Officer (CMO)
“Brand consistency and enhanced brand experience across all customer interaction channels”

Engagement

VP of Customer Loyalty
“Happy, Loyal, Recurring Shoppers”

VP of Commerce, Stores & Operations
“Efficient, low-cost order to cash processes and improved store sales”
ECM helps enable Smarter Commerce

- Document imaging & capture
- Social content management
- Advanced case management
- Information lifecycle governance
- Content analytics

Smarter Commerce is a smarter way for companies to buy, market, and sell their products, while serving their customers at the center of the value chain, enhanced by technologies such as ECM
Why IBM?

IBM has the experience, solutions and roadmap to help governments become smarter. We deliver:

• **A commitment** to progress and a century’s worth of proven solutions

• **Solutions** that deliver value and address today’s challenges and goals while creating a foundation for tomorrow

• **Leadership** that helps build smarter governments and a smarter planet

• **A strong ECM portfolio** with complementary partners that address public sector needs

*56 of the top 58 government organizations use ECM solutions from IBM.*

*Lists of top organizations sourced from Dun & Bradstreet Worldbase. ECM client information sourced from IBM Finance.*
ECM has never been more relevant

Become more creative and innovative

- Creativity is the top leadership quality
- Drive change to stay ahead of market
- Expand our communication channels
- Break with status quo (industry, business and revenue models)

Increase our responsiveness and flexibility

- Simplify operations and products
- Shift to iterative approaches (make quicker decisions - execute with speed)
- Increase agility by integrating globally and exploit partnering

Reinvent our Customer relationships

- Get closer to customers (top theme)
- Better understand our what customers need
- Deliver unprecedented customer service
Putting Content to Work

ECM UserNet 2011