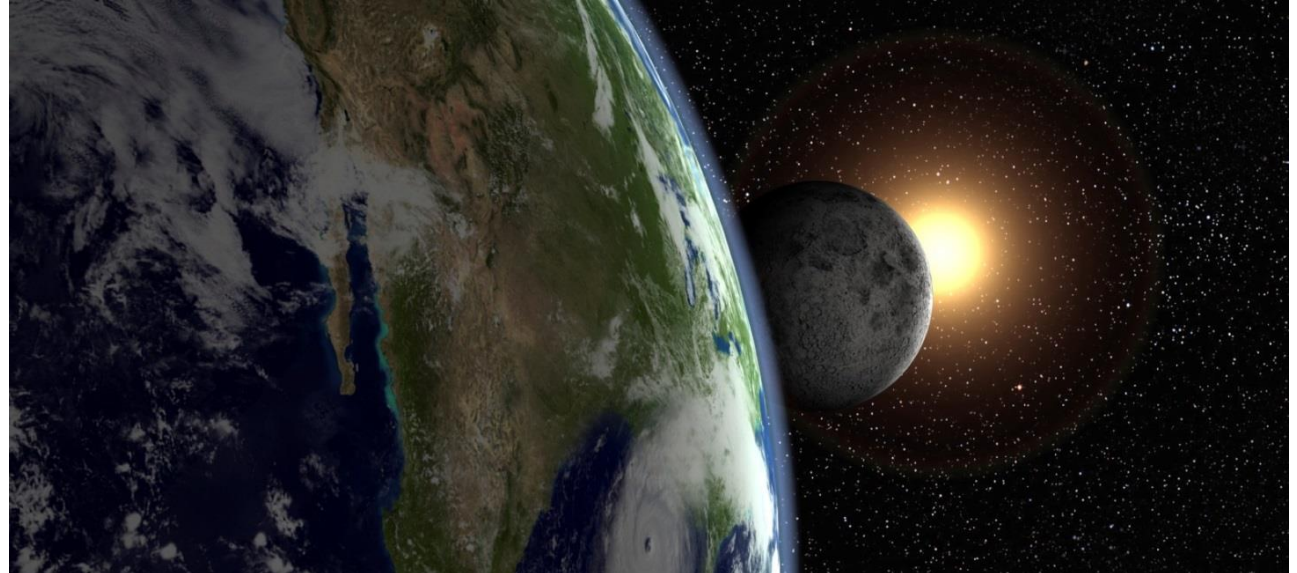# Crawford Technologies

Output The Final Frontier

Content Summit 2014

New York, May 8th

Output The Final Frontier…

- Director, ECM Solutions Crawford Technologies
- Background in electronic forms, print management solutions, financial data processing

Agenda

- ECM is Evolving

- Output the final frontier

- Successful Output Strategy

- Where it fits in the Industry

- Questions

Evolving World of ECM

ECM has proven to provide added value to corporations

- Enforcement of security policies
- Reduce Operating Expenses
- Improve Customer Services
- Minimize Risk

Where we are today…
A lot of effort is put into accumulating content

- Organizing
- Labeling / Annotating
- Committing
- Normalizing

The more content the better

- Content is information
- Content can be processed to generate more content

The next step is to share our information and connect with our customers
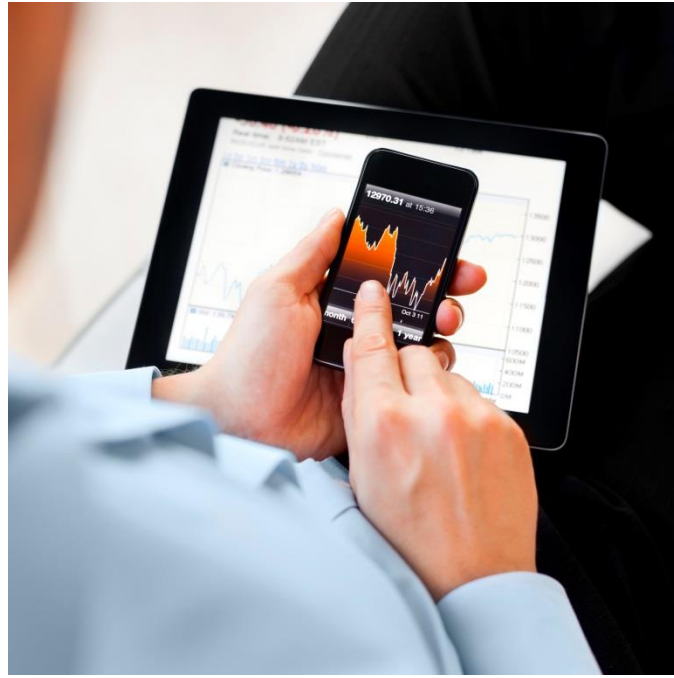
Sharing/connecting = output

Output is our final frontier…

Always the last and often overlooked, output is the Final Frontier in developing a successful ECM strategy
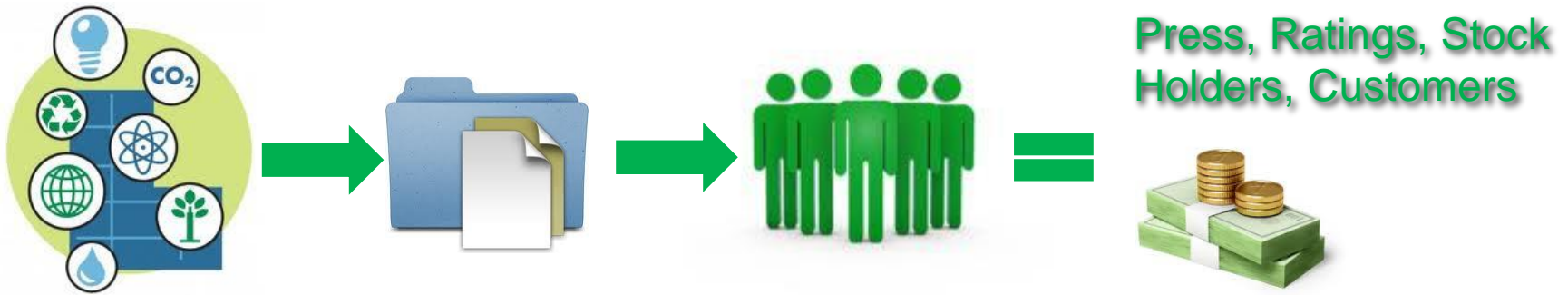

The Final Frontier

Connecting with Your Customer

Why Output?

The delivery of documents and the information they contain which comprise your customers corporate communications is what ECM solutions are judged by. After all, what is delivered has the most value and visibility.
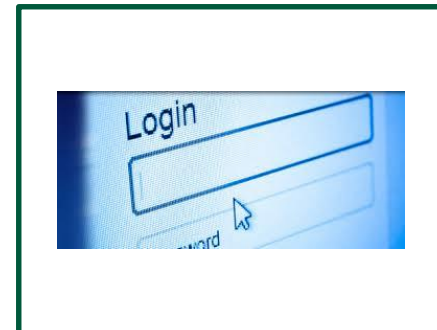
Press, Ratings, Stock Holders, Customers

Receiving Information is part of our everyday lives

How can we correspond to our customers?

Output Strategy

Questions when building an output strategy

- Will the content be in multiple repositories and file locations?

- Are there multiple file formats being retrieved?

- How do customers want to receive information?

- How is the content being retrieved/searched?

Output Strategy

Questions when building an output strategy

- Is there a need to redact content before it is delivered?

- Does the content need to be in a special format before being delivered?

Output Strategy

- Snap-into existing enterprise architecture
- Easily integrated with ECM solutions

Output Strategy

Snap-into existing enterprise architecture

- Load Balancers /Load

- Application Server

- Database

- Event Tracker (listeners)

Output Strategy

Easily Integrate with ECM Solutions

- Support multiple repositories
- Web service based API
- Support IBM ICN
- Server side processing
- Automated Work Flows

Output Strategy

Architect for growth

- Maintain a track record of events

  - Output devices may not be working

- Remove processing load from client desktop

- Support vertical and horizontal scaling

- Provide ability to repeat events

  - Re-prints

Benefits of a distribution strategy

- Reduce the labor and costs associated with manually processing output

- Avoid custom project development efforts

- Eliminate the use of and overhead of maintaining document source licenses for Enterprise Output

- Significant return on investment from using the most cost effective document delivery methods

- Automates Concatenation and Delivery (packeting) for faster delivery and increased customer engagement

Benefits of a distribution strategy

- Traceable
- Trackable
- Auditable

How is output and ECM currently being used…

- Everyone needs output

Healthcare

- Patient information packages
- Invoicing packages
- Request for information
- Benefit Information

Financial Services

- Customer Service applications
- Information packages for:
  - Loan approvals
  - Mortgage approvals
  - Credit ratings

Insurance

- Agent information requests
- Legal documentation
- Underwriter submissions
- Case documents

Life Sciences

- FDA Submissions
- Regulatory Submissions
- Documentation during drug development process

Government

Problem: A suburban California police department required a solution to distribute newly added case documents to the various departments involved with managing criminal cases. Originally, Records Bureau managers had to manually print, copy, and deliver case documents.

ECM Solution: The process starts when an automated email informs the Records Bureau that new content has been added to a case. The Records Bureau agents use search templates to automatically retrieve and select case documents. After the desired case files are selected, agents need to print the selected documents and define the target recipients with watermarks.

Require an output strategy that will:
- "packetize" documents found in search
- Identify the packet recipient by applying a watermark to every page within the packet
- Print the case packets and deliver to recipients before court opens

Transentation

Problem: One of the largest US ports required a solution to leverage their existing business rules to deliver assembled statement and invoice packets to various regional target printers.

ECM Solution: Two main systems feed documents into a P8 repository. SAP generates a summary invoice and Navis Express generates detailed accounts of shipments and storage. During the day's invoicing, IBM Business Process Manager identifies document ID's and Object Store ID's for the customer's summary invoice and detailed statement.

Require an output strategy that will:
- Be automated and is integrated with BPM
- Combines documents from repository and file system and spool for printing
- Adds cover pages for each invoice packet
- Pull special paper stock for letter head

Case Study

Wall Street Financial Services Firm

Problem: A large Wall Street financial services firm, required a solution to consolidate all business processes, from ratings requests to delivering statements and invoices.

Solution: The ratings firm converted all manual and automated business processes to a single unified case manager workflow using IBM P8 as the backbone architecture.

Require an output strategy that will:
- Receive requests from business processes to pull and print specific documents from P8
- Receive requests from business processes to pull and email specific documents from P8
- Support MS Word, PDF, TIFF and text documents
- Re-commit a record of printed and emailed documents in P8

Output Management Tasks

- Outbound document delivery includes:
  - Creating different types of communications
    - Internal / external
    - Customer / interoffice / inter-process

Output Management Tasks

- Ad Hoc Lookups

- Saved Searches

- Workflow Processes

- Repeatable Events
  - Triggered by
    - Business Process Management (BPM)
    - Workflow

Use Case Examples

- Healthcare

- Financial

- Insurance

- Life Sciences

- Government

Use Case

- Typical Request for Information, Life Before Riptide:

- In any industry, whether it is insurance, medical or finance, business, department, office….. Some process, manual or automated is going to submit a Request for Information.

  - Please get me all documents for case or patient #xyzab

  - But there are Word, Excel, Tiff, JPEG and PDFs in the repository for #xyzab

  - What am I going to do? How are these documents going to be delivered?

Use Case

- Life Before Riptide:
- Open each document one at a time
- File save as
- Group them manually
- Maybe I can get a PDF
- Maybe they will be in the right order
- This is REALLY complex!
- Why can't I simply e-mail, print, fax or deliver to a server?

Partner solution: Bulk Output for Content Navigator

Support multiple IBM ECM repositories with a single output solution (CMOD, P8, CM8)

Accumulate documents for output using a simple to use "shopping cart" process

Support multiple content types in a single submission (HTML, MS Office, PDF, JPEG, TIFF, GIF, AFP, TXT)

www.crawfordtech.com

Specific Issues on Document Delivery

- From P8

- From CMOD

- From CM8

- Other Repositories

Document Types

Outbound document delivery includes:

- Combining of different types / formats of documents

- Office
  - Word
  - Excel
  - Outlook
  - PowerPoint

Document Types

Outbound document delivery includes:

- Combining of different types / formats of documents

- Images
  - TIFF
  - GIFF
  - JPEG

Document Types

Outbound document delivery includes:

- Combining of different types / formats of documents

- Print
  - PostScript
  - PCL
  - AFP
  - Line
  - Xerox

Document Types

Outbound document delivery includes:

- Combining of different types / formats of documents

- PDF
  - PDF/A
  - PDF/UA

Document Types

Outbound document delivery includes:

- Combining documents from different repositories and/or locations

  - P8
  - CM8
  - CMOD
  - Others…

Output Management Tasks

Delivering using best practice method(s)

- Selected on an individual recipient/destination basis

    - Email
    - Directory Location / Cloud
    - Print
    - Fax
    - Media CD/DVD
    - Desktop

ECM Document Attributes

- Adding value with functional enhancements
    - Stamps
    - Watermarks
    - Copies
    - Sort Order
    - Table of Content
    - Manifest
    - Annotations
    - Page Ranges

ECM Document Attributes

- Adding value with functional enhancements
  - Stamps

ECM Document Attributes

Adding value with functional enhancements

- Stamps

Stamp: to imprint or impress with a mark, design, or seal
Bates stamping is the process of applying a set of identifying numbers to a document collection of PDFs to label and identify them.

ECM Document Attributes

- Adding value with functional enhancements
  - Watermarks

ECM Document Attributes

Adding value with functional enhancements

- Watermarks

A **watermark** is a recognizable image or pattern in paper that appears as various shades of lightness/darkness when viewed by transmitted light (or when viewed by reflected light, atop a dark background), caused by thickness or density variations in the paper.

ECM Document Attributes

Adding value with functional enhancements

- Copies

ECM Document Attributes

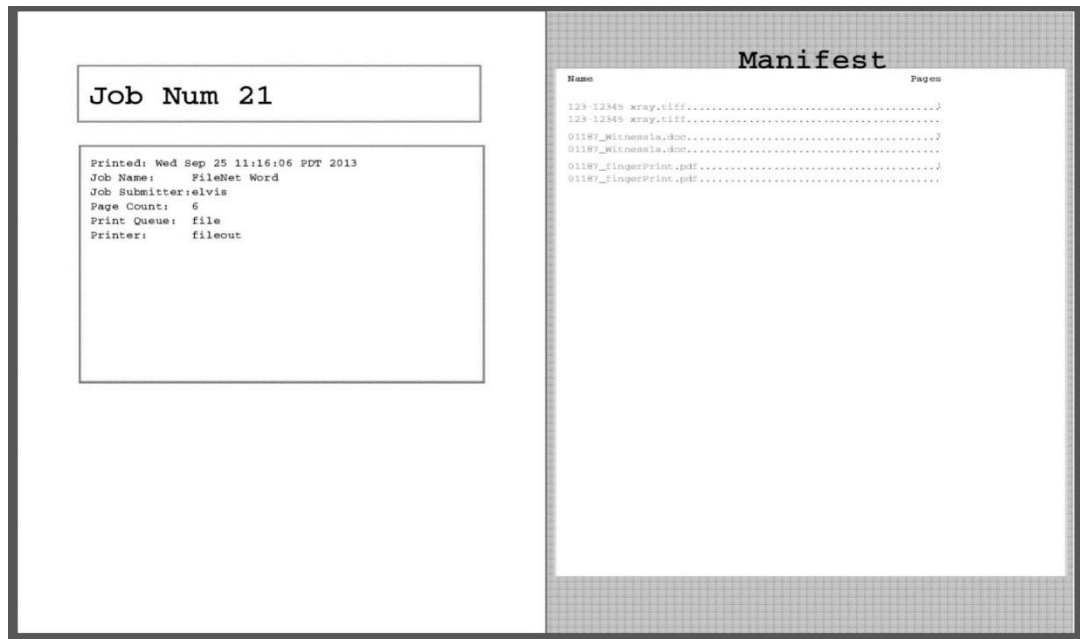Adding value with functional enhancements

- Copies

Copying is the duplication of information or an artifact based only on an instance of that information or artifact, and not using the process that originally generated it.

ECM Document Attributes

- Adding value with functional enhancements
    - Manifest

ECM Document Attributes

Adding value with functional enhancements

- Table of Contents
- Manifest

A **table of contents**, is a list of the parts of a book or document organized in the order in which the parts appear.

Manifest, a document listing the cargo, passengers, and crew of a ship, aircraft, or vehicle, for the use of customs and other officials.

ECM Document Attributes

Adding value with functional enhancements

- Annotations

You can use the Annotation object to link additional information to documents and other objects such as workflow definition, custom objects, and folders.

Examples of annotation formats are text, audio, video, image, highlight, and sticky note. Text, highlights and shapes are also used.
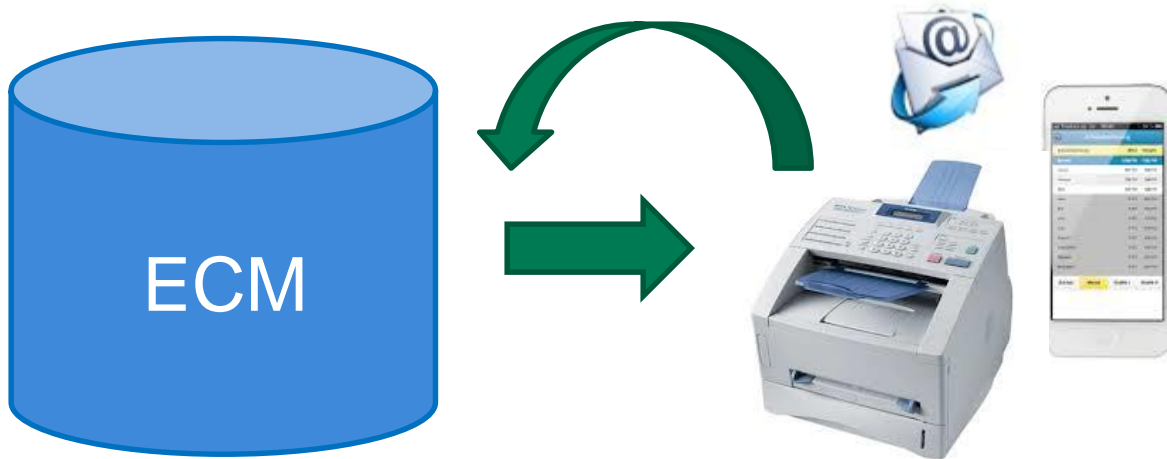
ECM Document Attributes

- Adding value with functional enhancements
  - Page Ranges
    - Use only the content relevant to the request or requirement

ECM Document Attributes

Recommitting work product documents to the appropriate repository

Considerations for Output

- Who is getting the delivery and what is it being used for?
- Formats
  - Original Format – varies by document
  - Destination Format – varies by recipient
- Documents
- Document Assembly

Output Mechanisms

- Print

- E-mail

- Fax Server

- DVD / CD

- Location

  - File Folder

  - Network / directory Location

- Mobile

- ePresentation

Output Management Considerations

- Automation
  - Multiple repository environment and collaborative teamspace factors in CN drive value of automated output management

- Server side
  - Increased security
  - Increased importance with CN's Mobile focus

- Information Governance / Compliance
  - Work product produced by a knowledge worker or team is in many cases a business record and needs itself to be retained
  - Logs of customer or constituent-facing activities such as CSR document retrievals should be retained

Value-Added Enhancements

- Separator Pages
- Stamping
- Watermarks
  - By destination
- Annotations
- Table of Contents
- Assembly Pagination
- Indices / Manifests
- Audit Logs

Putting it together

- API's
  - Content Navigator
  - P8
  - CMOD
  - CM8

Putting it together

- Conventional methods are expensive!
    - How much time did it take to open every document?
    - How much time did the packet take to assemble?
    - Does the packet have all the contents it needs?
    - Did it get delivered?
    - Is there a Record?
    - How difficult is it to resubmit ?
    - This needs to be automated !
    - Does it have all the features it should have?
        - TOC, Stamping, Watermarks, Page Numbers, Cover sheets, Separator pages
    - **The real cost is documents that are not delivered accurately or timely**

Summary

- ECM is evolving
- There are strategies for capturing content
- There are strategies for processing content
- Do you have an output strategy?
- Output is the final frontier of a successful ECM strategy

Thank You

Questions