

## **From Paper to Electronic Content: Issues and Technology**

**Increased demand for electronic content is forcing enterprises to rethink their approach to producing documents. The approach is shifting from a single channel of delivery to dual or multiple options.**

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### **Core Topic**

Knowledge & Content Mgmt., Collaboration & E-Learning: Content, Media and Publishing

### **Key Issue**

Which emerging business and technology trends will affect the future of content, media or document management?

The demands of customers, partners and employees for electronic content is forcing many enterprises to re-evaluate how they produce content. A large percentage of correspondence in the business-to-consumer (B2C) space is still paper-based. However, competitive pressures and demands from consumers and other enterprises are forcing enterprises to augment their content delivery processes to include multiple options. These demands and concerns about handling paper documents, precipitated by the October 2001 anthrax scare, and cost control initiatives, heightened by current economic conditions, have given new life to electronic delivery.

The benefits of electronic content are well-documented and measurable:

- Easy creation and modification
- Multichannel delivery — PC, personal digital assistant (PDA), cell phone
- Personalization
- Fast distribution via an intranet or Internet
- Faster business processes than with paper

An overall approach to managing paper and electronic content production is the automated document factory (ADF). The ADF, a Gartner concept introduced in 1996, has become more relevant than ever.

### **ADF Defined**

The ADF assembles, packages and delivers high-volume documents to diverse hard-copy and electronic addresses in varying document formats under a clearly defined, constantly

### **Gartner**

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improving, document manufacturing process. Material is received from the integrated publishing architecture resident tools and directly from computer-based applications.

The ADF verifies individual client destination/format preferences and delivers customized hard-copy or electronic output to the document recipient of various means, including mail, e-mail, the Internet and CD-ROM.

## **Moving from Paper to Electronic**

The ADF is not limited to hard-copy delivery of documents, although most enterprises consider this to be the case. Paper-based communication is not going to go away, but it's important to recognize the risks associated with relying on paper. The main business risk is that business processes are slower with a paper process and, today, that can become a competitive disadvantage.

Many enterprises have been offering electronic delivery of statements and bills as an option to clients for some time. We believe that more enterprises and consumers may opt for this channel. In North America, cultural inhibitors toward wide use of electronic bill presentment and payment have centered around security concerns. However, the anthrax scare and concerns about handling paper documents have given "new life" to electronic delivery. Enterprises that do not yet offer electronic delivery of what was originally hard-copy documents need to develop methods of doing so.

### **Note 1**

#### **IDARs and DOM Defined**

In the context of ADF, DOM is middleware that drives the output process and supports the automated creation and delivery of business process and ad hoc documents. DOM key capabilities include the ability to deliver documents to printers, to fax machines, or electronically via e-mail or Web servers.

IDARS provides ingestion, consolidated indexed storage, management and access, retrieval and viewing of data that is often print-stream-originated — for example, Advanced Function Printing (AFP) and Printer Control Language (PCL) — as well as transformation required to support diverse delivery of individually focused content.

IDARS is subsuming and transforming four markets:

- Computer output to laserdisc (COLD)
- Computer output to microfiche (COM)
- COM replacement (COM-R)
- Report distribution system (RDS)

## **Electronic Output: Presentment vs. Push Delivery Methods**

The pull method, in which documents are archived and recipients can go and retrieve them, is typically offered using integrated document and archive retrieval system (IDARS) technology. In this scenario, documents are posted to a repository and then users can access them via a password authentication process. This form of statement presentment is not new but, to date, has seen limited adoption, in the range of less than 5 percent in North America.

The push method, in which documents are automatically delivered to the recipient via e-mail or fax, typically involved distributed output management (DOM) software to accomplish this task. Enterprises with ADFs should evaluate incorporating DOM technology into their infrastructure (see Note 1).

When attempting to decide whether to offer IDARS or DOM capabilities, enterprises should consider using both. Many IDARS vendors offer DOM capabilities, and vice versa, as there

**Acronym Key**

<b>ADF</b>	Automated document factory
<b>AFP</b>	Advanced Function Printing
<b>B2C</b>	Business-to-consumer
<b>COLD</b>	Computer output to laserdisc
<b>COM</b>	Computer output to microfiche
<b>COM-R</b>	COM replacement
<b>DOM</b>	Distributed output management
<b>IDARS</b>	Integrated document and archive retrieval system
<b>PCL</b>	Printer Control Language
<b>PDA</b>	Personal digital assistant
<b>RDS</b>	Report distribution system

are many similarities between the two offerings. The differences are often in the robustness of the archiving or the delivery capabilities. In addition, DOM is more focused on job management and resource allocation tracking. IDARS has been appropriate when users demand immediate access to historical data, such as customer service environments. DOM has been an IT-driven technology, used whenever there has been a need for secure delivery of mission-critical information, often originating from an enterprise resource planning system across the network.

**Bottom Line:** Enterprises need to quickly enhance their ability to transmit documents electronically. This is especially important because of the renewed potential of hard-copy mail being contaminated. The ADF, IDARS and DOM can help enterprises organize and migrate their content workflow from hard copy to electronic.