LEVVEL RESEARCH

2017 Enterprise Content Management Report

Strengthening Data Management in a Modern Business Environment

Q3 2017 | Featuring Insights On...

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Introduction

In today's fast-paced and competitive business environment, organizations have many priorities when it comes to managing their operations, and maintaining control is near the top of the list. This entails control over many factors, including costs, supply chain, employees, suppliers, and data. Maintaining control over data is becoming especially more difficult, particularly as companies transition toward digital methods of storing and sharing their information.

The amount of information that a company must manage, in many formats and from various sources, can be enormous and involve an overwhelming process. It is vital to ensure the integrity of sensitive company information, but doing so becomes increasingly difficult as businesses grow and change. Many businesses try to adopt more digital back-office processes in order to keep up with their competitors and satisfy their business partners and customers. However, storing business data electronically also subjects that information to the danger of cyber-security breaches, as well as the difficulty of using one standard process to manage and store many types of data. Even the process of migrating important business documents from paper format and physical filing cabinets to digital format and electronic storage methods can lead to complications, including lost, compromised, or stolen information. How should a company digitize their documents without subjecting them—and their own business' good standing—to security risks?

One of the most versatile tools available today for managing business data is enterprise content management (ECM) technology. ECM software is used to capture, store, and manage important business content in a secure digital environment. It also offers document management and workflows that facilitate meaningful collaboration between organizations' back-office departments. ECM solutions also allow organizations to build uniform methods for handling a variety of content—reducing data errors, improving communication, and enhancing decision-making related to important business processes.

When leveraged with the services of an experienced provider, ECM technology can take companies to a modern, competitive, digitized business environment without risking the security and stability of their back office. This report explores leading ECM functionalities and provides a guide to help organizations make educated buying decisions.

An Overview of ECM

Enterprise content management software was derived from the electronic document management system (EDMS) developed in the 1980s. The EDMS was built for small-scale implementations, often with separate instances for each back-office department and the primary goal of eliminating paper. EDMSs were eventually applied to a broader range of business process needs, with new versions becoming more and more holistic and department-agnostic.

The EDMS's versatility has transferred to the modern ECM solution, in that companies can use ECM tools in a remarkable number of ways. Today, ECM solutions help organizations do more than merely get of rid of paper and store electronic documents—companies can access and collaborate on content of all types and across a variety of functions in order to meet important business objectives. The following items touch on the flexible and robust applicability of ECM in the back office.

Dynamic ECM

One of the greatest values of ECM software is its ability to be used for multiple functions, across numerous back-office processes, while also offering security and stability for those documents as they move. For example, an organization could adopt an ECM tool for its storage and archiving capabilities. The solution organizes data in secure document libraries and keeps track of documents' audit trails. However, the technology can also be used dynamically—to send documents throughout an organization and manage several important document processes. Many different teams can use ECM for their own unique requirements, including Human Resources (HR), Accounts Payable (AP), Accounts Receivable (AR), and expense reporting. The solution can support workflows for application processing, insurance claims, patient charts, loan documents, employee onboarding, customer service reports, and tax documents, before securely storing these documents in the system's repository.

ECM solutions go beyond simply moving documents—they also allow different teams to use workflows and authoring tools to create new documents. This enables a company to break down some of the internal silos that make sharing information difficult. Instead, they have access to a collaborative platform that fosters creativity and communication. ECM solutions can be used to send a variety of different documents back and forth within one department, or more holistically with routing among departments and individual employees. All

movement is protected in the secure platform and with role-based access controls and permissions.

FIGURE 1

Some Departments and Processes in Which Organizations Can Use ECM Software

Versatile ECM

Automation tool, primarily manage structured and semi-structured documents, such as electronic invoices, purchase orders (POs), and receipts. However, many companies have to deal with a variety of unstructured data formats that do not work with the systems typically used to manage traditional electronic file types, such as ERP. One of the main differences between ECM software and more specialized financial solutions is its ability to extend to many other types of semi-structured and unstructured data, including photos, videos, web pages, slide deck presentations, blog entries, Microsoft Word documents, and emails.

The number of formats required in today's business environment is increasing as technology grows more diverse and global—and as businesses grow more integrated with web-based environments. The need to manage this information in relation with online platforms is increasingly important, but it must be done with a tool that protects the security of a company's data. ECM solutions often extend their advanced security controls to web-based document management (involving emails, website content, etc.), enabling a company to leverage the power of the internet without exposing themselves to its security risks.

FIGURE 2
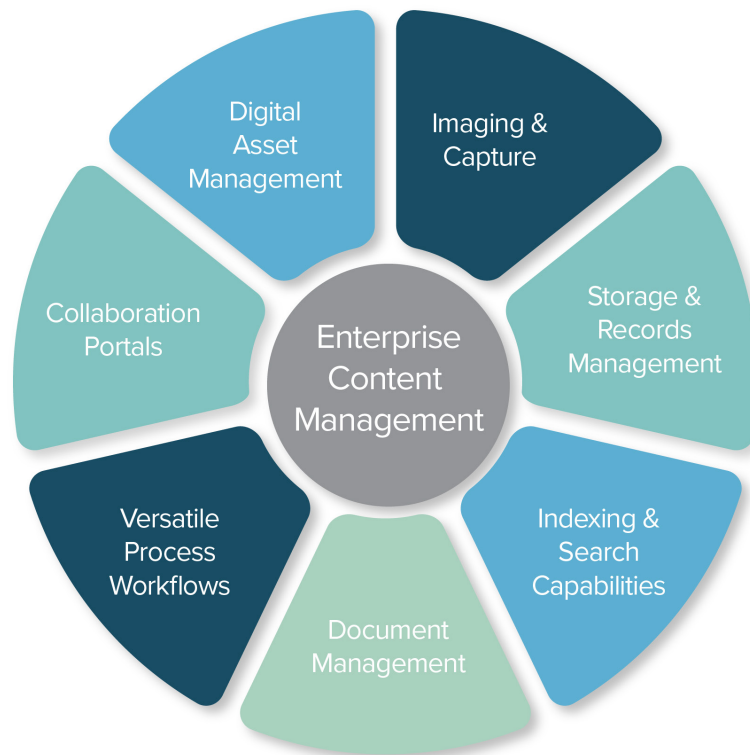
Primary Modules and Uses of ECM Software

Efficient ECM

Companies can use ECM across different departments, increasing efficiency for many different processes without having to buy large, expensive stand-alone solutions for each. This feature is especially valuable for small- and mid-sized organizations that want to automate the back office, but cannot afford technology investments across all areas. ECM solutions reduce processing costs by eliminating paper, manual data entry, and lengthy, manually driven workflows. They increase efficiency, facilitate more strategic allocation of back-office labor,

and provide secure digital storage, reducing the pressure on an organization's IT department. ECM also serves as a single repository for all content, collecting the information in a uniform structure. This method reduces issues of inconsistent or redundant data, and greatly improves an organization's access to necessary information. It also shortens the time required to track down different professionals to gain certain information or files, as well as the time needed to fix problems related to inaccurate data and inefficient storage methods.

While the above points have given an overview of the value of ECM for the organization as a whole, the following section takes a more granular look at the different modules contained in modern ECM solutions.

Today's Leading ECM

Most current ECM solutions come with the following tools and features:

Data Capture

ECM uses data capture software to automatically extract content from paper documents or electronic files and enter it into the system for management and storage. This process also involves organizing data using a consistent structure, which allows the system to manage content from a scanned invoice or employee application just as efficiently as that from a slide deck presentation or email. There most common data capture technologies include optical character recognition (OCR), intelligent character recognition, handprint character recognition, optical mark recognition, and barcode recognition.

Leading ECM providers offer a variety of data capture technologies to transform as much data as possible into a consistent, usable format. Some providers guarantee data capture accuracy rates or provide an intelligent technology that can adapt to repetitive forms in order to increase its accuracy rates over time. Certain data capture technologies can also read data in multiple languages. These tools can often be installed on desktops for each department to use or in an organization's mail processing room for a more centralized method.

Some leading ECM providers offer mailroom services for organizations that want to outsource their document management and data extraction process. In this case, business documents are mailed to a centralized location and processed with advanced data capture technology. Mailroom operators may also conduct double-blind keying, a process that involves multiple operators surveying the same document to ensure the extracted data is correct. This can often deliver the same accuracy-level guarantees as a plug-in data capture tool. In all, the more services and technologies the solution provider offers for extracting and processing content, the smoother the long-term management of that content will be.

Data capture technologies are leveraged to process both manually generated items (paper, photos, emails, etc.) and computer-generated items (EDI, XML, etc.). For manually generated items, many ECM providers supply their clients with physical scanning hardware or a software plug-in that connects to their own scanning machines. ECM solutions also include forms processing, which enables organizations to capture data from electronic files such as web forms, e-forms, e-billing, EDI, and XML.

After the data is extracted, the solution typically cleans up the scanned image and stores it along with the extracted data. The ECM system aggregates extracted information from all sources and inputs for indexing. Categorizing and indexing lead to better storage, search, and retrieval. Indexing is performed by users, or automatically by the system, depending on the solution's capabilities.

Internal Document Management

Document management identifies certain characteristics and qualities of a document: What purpose does this document serve? To which department should it be sent? What user should see, edit, and approve it? How should the file be stored? Most documents in an ECM system are either active or passive. Active documents, including employee applications, legal documents, and, in some cases, open invoices, are sent along a workflow route to different users for review, editing, completion, or approval. Passive documents are typically entered and stored with the system's retention and records management tools, and generally do not require extensive routing. An efficient document management system should give organizations full control over and visibility into where the document is routed, and provide tools like version control, searches, and customizable organizational structures.

Workflow functions in ECM solutions, often leveraged as a business process management tool, allow organizations to transcend traditional department, process, and system barriers to share documents and work on projects. Collaborative and groupware tools are key elements for managing active documents, allowing professionals in many different roles to take part in the documents' life cycles, assign tasks, reroute documents, and view audit trails. Most ECM approval workflow capabilities include alerts, reminders, and escalation procedures that ensure necessary actions are taken in a timely manner.

ECM workflows are also highly configurable; they are built to adapt to an organization's existing approval hierarchies and enable complex routing. During and after the initial ECM setup, organizations can easily adjust workflows according to their own business rules, legal requirements, and document specifications. Advanced solutions facilitate this customization through visual workflow editors with detailed process flows and drag-and-drop functionality.

Storage and Preservation

Document archiving provides companies with an organized, manageable environment for any business data they wish to store. This component is sometimes referred to as records management; one of the primary purposes is to securely store critical business records that apply to regulatory, legal, and industry compliance.

ECM solutions should offer a flexible archival framework that is compatible with different storage technologies (e.g., hard drives, CDs, cloud) and maintains a records retention schedule. Some ECM solutions also include digital asset management, which is specifically tailored for storing and managing a company's digital media files. The ECM provider should also offer robust system security to protect against breaches, fraud, and loss of sensitive information.

Search and Retrieval

Sometimes referred to as library services, this function enables users to search for and collect documents using advanced search methods, check in and check out documents, run version comparisons, and view audit trails. These searches and features should also be subject to role-based access controls. For example, in most cases, it would not be appropriate to allow a customer service representative to retrieve a sensitive legal or financial document normally exclusive to executive members of the company. In addition to retrieval, ECM solutions deliver documents in the users' preferred formats, such as XML, email, or PDF.

Some ECM providers offer additional modules, including special support for email management and analytics tools for researching stored data. These are usually offered natively or through a third-party integration. Several of these leading functionalities are further outlined in the following section.

Web-based Services

With the ability to manage diverse data, companies can manage and store content in nontraditional document formats, and receive and manage more content from outside sources. As more organizations and systems are leveraging the web in daily business operations, the ability to properly intake and manage web-based data is increasingly important. Some ECM solutions are compatible with web-based business operations because they integrate with online platforms. These ECM providers offer a content management system (CMS) module with their solution, either natively or through a partnership with a stand-

alone CMS provider (e.g., WordPress). CMS allows organizations to manage the content on their websites and online portals (both employee- and customer-facing). It supports online access and collaboration between users, and some of its key features include web content editing systems with templates, version tracking, workflow, and web design features for creating website tools. By leveraging a CMS system with an ECM solution, an organization has more holistic control of both its internal and online company data.

Social content management is a special module that is used to better manage a company's use of interactive web platforms. This module allows the ECM solution to integrate with social platforms to monitor online document creation, providing collaborative authoring workflows and administrative features. With this integration, organizations have more control over content published online, minimizing the risks that come with sharing company information in informal online environments. Social content tools are available natively or through third-party partnerships.

It should be noted that not all organizations need this component of ECM software, and not all ECM solutions offer it. Whether or not a provider offers these services is not indicative of their expertise as an ECM provider in general.

Choosing an ECM Provider

When an organization is ready to adopt an ECM solution, they should be careful to weigh their specific needs against the versatility of the ECM provider. They can ask the provider a series of question as they weigh their options.

Experience and Versatility

Question	Response
How many different back-office processes does the provider have experience supporting?	
How many different document types can the provider's solution support? How many different file types (.doc, .xls, .odf, JPEG, .tiff, .png, email, XML, .html, CAD, etc.)?	
What is offered on the provider's product road map?	
Does the provider partner with any third-party developers to offer additional document management tools (CMS, social content, management, electronic digital signature, etc.)?	
Is the provider willing to build out new capabilities to meet this organization's specific document process needs?	
What experience does the provider have within this organization's industry?	
What experience does the provider have within this organization's revenue segment?	
Does the provider have customers in this organization's geographic location(s)? Can it meet this organization's geography-related legal and reporting requirements?	
Does the provider offer support for this organization's language and currency requirements?	

Termonology and Structure

Question	Response
How is the solution deployed (on-premise, cloud, hybrid, etc.)?	
Is the provider able to integrate with this organization's different financial systems/ERP systems? Does this integration allow for real-time access to local data?	
Does the provider offer desktop installations of the solution?	
Does the provider offer a mobile application version of their solution?	
Does the provider conduct regular system audits?	
Does the provider offer multiple security certifications and partnerships with outside security and compliance experts?	
Does the provider offer data encryption for content in transit (SSL/TLS) and in storage?	
Does the provider's solution include role-based access controls?	
Does the provider offer support for this organization's language and currency requirements?	

Customer Support

Question	Response
What are the provider's implementation agendas and average timelines?	
What training methods does the provider offer?	
What support programs does the provider offer both during and after implementation?	
Does the provider offer document scanning and onboarding services to new customers?	
Does the provider offer data capture technology or access to mailroom services?	

Organizations should try to find a provider that can meet their specific current requirements and is able to scale to their future business needs. To further aid in the selection process, the following profile highlights the features of one of today's leading ECM solution providers.

ImageTag

ImageTag is a document management and business process automation solution provider for mid-market organizations. The company first offered its ECM solution in 1997, later adding ERP system integration and workflow automation to its core capture platform, KwikTag. Today, KwikTag provides ImageTag customers with a holistic system for managing document processes across their entire organization. The KwikTag solution includes several advanced tools for capturing, storing, and searching for documents, and routing using dynamic workflows for any necessary reviews and approvals.

Founded	1997
Headquarters	Tempe, AZ
Other Locations	Tucson, AZ and Fort Lauterdale, FL
Number of Employees	1,000 companies; 120,000+ business users globally
Target Verticals	Healthcare/Insurance, Financial Service, Manufacturing, Restaurant and Food Service, Construction, Professional Services, Sports and Entertainment, Education and Government, Nonprofit
Partners/Resellers	Socius1, SBS Group, Tribridge, RSM
Awards/Recognitions	Microsoft Silver Partner, 9 Patents; Previus: Microsoft Partner of the Year Finalist

Solution Overview

KwikTag integrates directly with Microsoft Dynamics GP, NAV, SL, and AX through ImageTag's ERP connectors, allowing customers to tag, view, search for, and retrieve any document that has been captured by KwikTag. The solution is offered on mobile devices through the KwikTag Anywhere responsive design application. The system also integrates with Microsoft Office and Office 365, enabling users to leverage the system to send documents and forms directly into KwikTag from these common applications. The solution provides a number of methods by which users can submit, tag, search, and retrieve documents. Users can search for documents with KwikTag Global Search, an advanced search function that includes everything from simple text queries to full content searches, in addition to metadata search criteria.

In order to input customers' documents into the system, KwikTag facilitates batch scans using full OCR capability, as well as add-on products and services that perform intelligent capture (Zonal OCR) with auto-learn capabilities. The intelligent capture tools decrease the occurrence of low-confidence character recognition over time. ImageTag reports that in some cases, accuracy rates haves reached up to 99 percent.

Once documents are in the system, KwikTag workflow solutions allow customers to route them across many different departments and roles. The solution supports mobile email approvals to accelerate the process, as well as automatic escalation routing. KwikTag also enables users to update workflows in real time with its Workflow Assignment Matrix Management tool.

The system has a flexible repository that allows documents to be archived outside of the KwikTag server on distributed customer storage systems. Built into the KwikTag system is a sophisticated Document Lifecycle service that enforces retention and archiving rules based on document type.

KwikTag provides security at multiple levels, including user authentication, site and drawer level permissions, and file-specific access. Security can be handled with Active Directory-driven control settings and single sign-on Windows authentication at the user level. KwikTag's security measures enable compliance with SOX, HIPAA, and other financial and corporate regulations.

The solution is designed to accommodate a variety of back-office document life cycles, including those for accounting, expense management, and supplier or employee onboarding; and it can be tailored to meet the needs of any business process. These applications are found in ImageTag's catalog of KwikApps®, which are packaged and semi-packaged workflow applications designed to automate a specific process for any department (e.g., Payables Automation, Expense Management, Sales Orders, Corporate Forms Automation, Employee HR Files). The system also offers a role-based client strategy, providing different client experiences for various roles and activities.

Because document metadata is stored in ImageTag's relational database, customers' documents are linked to each other via common values. KwikTag allows users to retrieve a document and all related documents in the system, grouping them together in "Cases" for a broad view of a common area of interest. For example, in an Employee Case, all documents related to an employee are grouped together, making the navigation experience simpler for

the employee, Payroll, and HR.

The KwikTag system also supports the full digital asset life cycle, including creating, managing, distributing, retrieving, and archiving digital assets. The company's professional consultants work with customers to recommend best practices and tailor solutions to meet their digital asset management needs.

Implementation and Pricing

The average implementation of the KwikTag solution typically runs between two and three months, depending on the customer's schedule and availability. ImageTag offers hands-on administrator training and video tutorials during implementation, as well as hands-on Power User training.

After implementation, customers receive unlimited technical support via a dedicated U.S.-based support team. They also have access to a dedicated technical account manager and proactive server maintenance for an additional fee. ImageTag's pricing structure varies between on-premises and Software as a Service (SaaS)implementations.

About Levvel Research

Levvel Research, formerly PayStream Advisors, is a research and advisory firm that operates within the IT consulting company, Levvel. Levvel Research is focused on many areas of innovative technology, including business process automation, DevOps, emerging payment technologies, full-stack software development, mobile application development, cloud infrastructure, and content publishing automation. Levvel Research's team of experts provide targeted research content to address the changing technology and business process needs of competitive organizations across a range of verticals. In short, Levvel Research is dedicated to maximizing returns and minimizing risks associated with technology investment. Levvel Research's reports, white papers, webinars, and tools are available free of charge at www.levvel.io

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