

# THE EMERGENCE OF CLOUD-ENABLED CONTENT SERVICES

Growing into the future with agile, intelligent information management



Hyland™

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# The (spiraling) need to manage information

Organizations have always needed to manage business information effectively, but today the need to balance usability with security and remote working with compliance means that IT departments are under more pressure to deliver than ever. That pressure was increased by COVID-19 — driving possibly the fastest digital transformation process ever witnessed. The pandemic forced organizations to adapt across several diverse areas due to:

- The need for businesses to shift to remote working as quickly and painlessly as possible
- Volatile market conditions affecting investment levels, purchasing patterns and overall spend levels
- The decrease in IT purchasing in areas such as retail, travel and hospitality
- The surge in IT spending in areas such as healthcare, ecommerce and self-help/well-being industries

In times of rapid change and uncertainty, it may seem natural to take a defensive business stance — but savvy organizations do the opposite. Using the volatile environment to fuel their goals, enterprises that make wise investments during times of crisis are perfectly positioned to reap the rewards in the future.

Managing your business-critical information is one of the most fundamental and important areas to focus on. In this ebook, we explore why organizations are looking to information management to help manage change, contain risk and drive business value — and how cloud-native content services platforms are answering their call.

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# The six Vs of information management

The pandemic is not the only catalyst for change in the information management space.

The six Vs of information management are driving the need for better business solutions and practices to handle key information and content. Each of these areas are increasing the pressure on organizations of all sizes.

**Volume**

According to IDC, the amount of data and content generated and received by organizations is growing faster than their ability to store and process it. This trend shows no sign of slowing soon.

**Variety**

Modern content is more than just scanned and Office documents. It includes videos, images, SMS messages and much more.

**Velocity**

The speed at which information is generated is growing, but so is the desire for always-on, anytime, anywhere access to information.

**Variation**

Organizations need to manage a combination of new and old information and apply it against constantly evolving compliance challenges and requirements.

**Value**

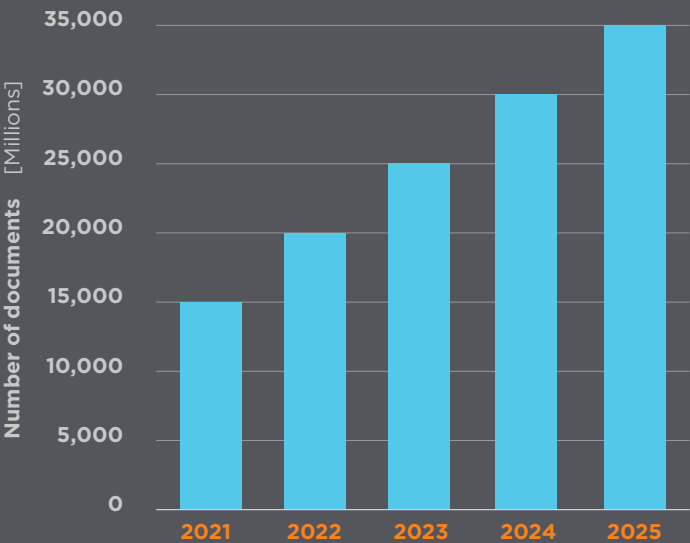
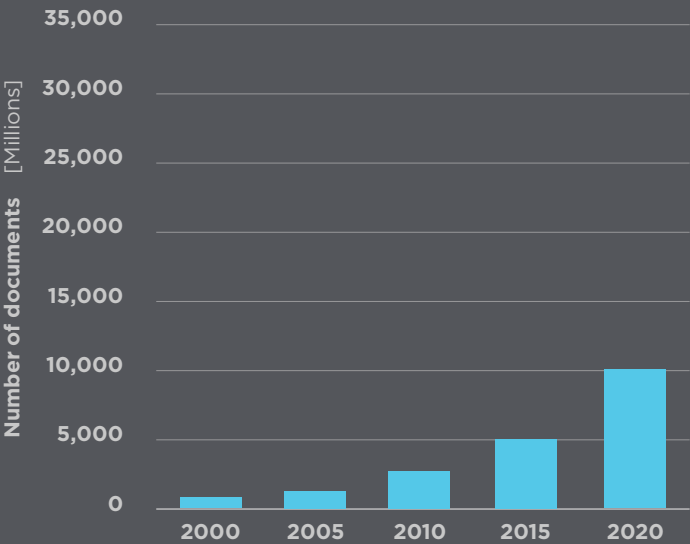
Content is a core component in various business processes, so the efficient capture, data extraction and routing of data and content is vital.

**Visibility**

As organizations grow, so does the number of information silos and systems that they manage. An elegant solution is required to find and manage information across these myriad tools.

The traditional tool used to manage information within the corporate world is the enterprise content management (ECM) system. However, many antiquated legacy ECM platforms are struggling to adapt and provide solutions to real-world business challenges.

## THE LAST 20 YEARS VS. THE NEXT 5







# The evolving need for ECM

Enterprise content management platforms have been around since the early 2000s and are proven within organizations of all sizes to govern and control documents and data. However, the business world in the 2000s was hugely different to the world we now occupy in the 2020s and, as a result, the strategies and tools used to manage information must modernize. There are several factors to consider regarding this transformation to modern content management.

## Aging platforms

Many traditional ECM platforms still have the same dated, monolithic framework they were born with. This leads to limited functionality, challenges integrating with more modern solutions and expensive development and maintenance cycles for add-ons.

## To the cloud?

Some ECM vendors and their customers initially resisted the cloud, but improved confidence in information security is convincing increasing numbers of companies to make the move. Ensuring the content management strategy and tools within an organization are cloud-ready and fully functional in the cloud is a core requirement.

## Limited innovation

The focus on re-architecting for modern infrastructures can lead to a drop in innovation and new features for certain legacy vendors. Users of these platforms will miss out on new core capabilities such as advanced automation, integration with collaboration and business applications and modern, simplified management and user interfaces — putting them at a serious competitive disadvantage.

## Continued high implementation costs

The deployment of most ECM systems requires careful planning, a lot of configuration and significant user training. Combined, this results in high implementation costs — especially when compared with the flexible, monthly pricing models and extensive customization options available in modern platforms.

## Information sprawl

Despite years of claims that one system would store all the content within an organization, vendors failed to deliver on this promise, resulting in the deployment of multiple, disconnected information systems — none of which were ever designed to work together. The result is a collection of aging platforms, abandoned collaboration sites and isolated departmental solutions.



# Four areas where content services comes to the rescue

According to Gartner, the term “enterprise content management” no longer fits the dynamics of the market and should be replaced by “content services” driven by a “content services platform.” We see content services platforms as the next evolution of ECM — and an opportunity to address the challenges faced by aging, outdated ECM platforms. Content services takes a wider view of the business. In this ebook, we focus on four business areas that can be reimaged using a strategic content services approach:

- Increased access to information from any device, any location, at any time
- Faster and cheaper creation of business-focused solutions — that are subsequently easier to maintain
- Increased automation, efficiency and visibility of multiple business processes
- Intelligent management of new rich media formats such as video and images

As we have seen, the need for information management is greater now than ever before. With a CSP, organizations can go beyond simple information management to achieve true digital transformation — with flexible pricing via consumption, subscription and perpetual licensing models.

[Are you ready for the journey?](#)





## Information Access

If the COVID-19 pandemic has taught us anything, it's the need to have access to information from any device, at any time, from any location. For information managers, this means having remote and mobile tools to access content, as well as interact with several content-driven areas of the business, including:

- Execution of business workflows
- Integration to cloud-native services for optical character recognition (OCR), translation, transcription, sentiment analysis and more
- Creation of fresh, custom/business-specific solutions using low-code development tools
- Use of analytics and artificial intelligence (AI) to drive value from their corporate information assets

The concept of gaining access to content in context is increasingly important.

For knowledge workers, this can take the form of seamless access to all content from any business system, whether that is their email tool, content creation tools, ERP or CRM business systems or the native content services interface. Customers are increasingly investing in self-service portals, allowing users to add documents and data to corporate systems and to drive their own workflows for activities such as product selection, loan applications and account management.

An empowered customer is a happy one. From a content services perspective, this means providing a cascading series of cloud-powered options — from simple mobile apps to the ultimate content services platform offerings built entirely on cloud-native architectures.

## KEY SOLUTIONS

### INFORMATION ARCHITECTURE

Gartner defines content services as “a set of services and microservices, embodied either as an integrated product suite or as separate applications that share common APIs (application programming interfaces) and repositories, to exploit diverse content types and to serve multiple constituencies and numerous use cases across an organization.”

To deliver the content services vision defined by Gartner, a cloud-powered information architecture is a massive help. A content services platform that can take advantage of public cloud infrastructures — such as Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform and others — offers many business benefits:

#### Limitless scalability

The cloud offers unparalleled elastic scalability. One example is the ability for a university to scale up processing during student application season and to scale down resources during holiday periods.

#### Controllable total cost of ownership

Cloud architectures reduce running costs, simplify resource management and offer greater control over long-term platform ownership costs.

#### Microservices architecture

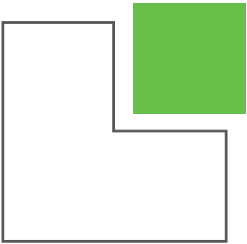
A cloud-powered platform takes advantage of modular scaling and is perfectly positioned to take advantage of new cloud-native services.

#### Instant access to innovation

The constant innovation, constant delivery (CI/CD) model of software management utilized by many cloud-powered platforms means that updates can be rolled out instantly and without user intervention.

#### Multiple integration options

Cloud-powered solutions offer the ability to easily integrate content access within other business applications. Whether serving related content to a customer record in the cloud-based Salesforce CRM or providing historical document access in an on-premises HR solution, flexible and fast integration can drive significant business benefits.



# Solution Creation

Every organization is unique, and rarely do commercially available solutions exactly address the specific needs and challenges of the business. As a result, the purchase of any corporate IT solution is inevitably followed by business-specific customization. However, many legacy ECM systems lack the quality of the tools required to develop meaningful solutions on top of the platform.

Modern organizations are looking for agility in all areas of the business, including information management. They need tools that allow them to:

- Rapidly develop purpose-built content and case management business solutions
- Increase business agility via rapid configuration and customization of existing solutions
- Simplify initial development and future changes and maintenance
- Support open-source initiatives to access accelerated solution development from open-source communities
- Accelerate prototyping of new apps — driving increased productivity and problem solving
- Increase the speed of innovation

Thankfully, most content services platforms come complete with the tools to deliver against all these prerequisites. How? They make use of low-code development tools.

## KEY SOLUTIONS

### LOW-CODE POWERED SOLUTION CREATION

Low-code development tools are not new — they have been used in areas such as software development for many years. Those of us who grew up building apps using Visual Basic are familiar with GUI-based development tools. Similarly, within information management, workflow design tools offer a visual way to create and manage business processes. But in a modern content services platform, low-code tools are much more capable and offer the business a wide range of benefits. Some of their key characteristics:

- Easy to learn due to their visual and declarative design model
- Highly collaborative, which enables them to engage business analysts and IT developers alike
- Rapid prototyping, encouraging a focus on rapid innovation
- Iterative development, allowing any developer to refine and maintain apps
- Business-centric, letting teams rapidly develop purpose-built content and case management applications that solve genuine business pain points

A word of caution: While low-code development tools allow rapid prototyping by a wider, less developer-focused team, there are situations in which organizations need to create low-level code. Having a low-code environment does not replace the need for a custom-coding environment, open standards or an open and accessible application programming interface. Modern content services platforms need to provide capabilities and tools from low code to full code and everything in between.





# Business Automation

Ever since the first document management system, businesses have been sold on the potential of automated processes. Automation promises to replace manual tasks, remove human errors and increase the ability of staff to focus on less mundane, higher-value tasks.

While ECM addressed simple automation for paper-based, document-centric processes, modern organizations are looking for much more. Business content is no longer just documents and scanned images. Knowledge workers are being asked to work with more diverse and ad-hoc processes — and with incoming information in a wide variety of formats, such as images, audio and video. In an ideal world, automation would enable businesses to:

- Automate document ingestion, both in bulk (batches) and as part of individual transactions
- Automatically identify distinct types of content
  - For example, invoices, contracts, remittances, correspondence, emails, resumes, etc.
- Extract rich and meaningful data from content to make it easier to find later
  - Traditional tools have extracted text and data, but we now can go much further. For example, extracting sentiment from emails and voicemails, identifying key scenes from videos and distinguishing between specific product variants in images.
- Create multiple renditions of the original content
  - For example, PDF versions of documents, multiple resolution and formats for video and images and watermarked or redacted versions of legal documents
- Intelligently route documents and data — based on location, related documents and metadata — to relevant processes and users

For many reasons, automation has struggled to deliver these requests, not moving from promise to reality. But modern content services platforms don't just have automation — they have automation powered by robotic process automation (RPA) and AI.

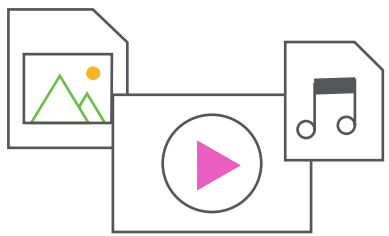
## KEY SOLUTIONS

### INTELLIGENT AUTOMATION

Automation in a modern content services platform makes use of multiple technologies to achieve its goals — from traditional OCR to more modern tech such as RPA and AI. Intelligent automation focuses on using computing power to deliver human-like understanding, judgment and decision-making, with the added benefits of reduced error rates and blinding speeds. Rather than discuss how each technology works, let's focus on the benefits modern automation adds to the business:

- Use a combination of OCR, RPA and AI to intelligently identify and classify content
- Intelligently extract and assign (meta)data from incoming content
- Identify relationships and group related information using automatically generated folder structures and metadata
- Improve search by enabling faceted search, deep relationships and comprehensive metadata tagging
- Index content from across multiple federated repositories to facilitate stronger enterprise-wide search capabilities
- Automate processes — trigger processes or automate decision-making directly from extracted data, enabling more predictable and accurate outcomes
- Automate compliance — assign retention and records policies, assign access controls and determine storage and archival requirements to strengthen compliance and eliminate manual errors

The potential provided by modern, intelligent automation is limitless. Content services platforms allow organizations to make the most of automation in areas such as capture, process optimization and more — using system-specific tools and those available as cloud-based microservices from other vendors.



## Beyond Documents

As we become more digitally enabled as a society and as a business community, the types of content we use are changing — and expanding. As individuals, we create images, audio and video content using our mobile phones to share on social media. Rich media usage has lagged slightly in the business world, but it's catching up rapidly.

Most ECM tools can store various photo, video, audio and graphic design formats (such as TIFF, JPG, PNG, AI, EPS, etc.), but they are not specifically designed to do so. Equally, while traditional data extraction tools and OCR engines were more than capable of extracting text from a document, it's a lot more complicated and nuanced process to interpret and understand what an image or video is showing. Put simply, ECM tools lack the functionality needed to effectively manage rich media content in a modern enterprise. These requirements include the need to:

- Integrate to rich media creation tools, such as the Adobe suite
- Improve collaboration across content formats and media types
- Extract insights or business data from rich media to drive business value
- Provide native viewers for rich media content
- Annotate and edit rich media formats
- Offer rendition management to create alternative resolution and formats of the original content
- Ensure fast access to content, which is especially important for high-resolution and large content such as video and computer-aided design files

In addition to enabling businesses to take advantage of rich media to support traditional business workflows, digital asset management (DAM) tools are available to creative firms, marketing departments and product design teams within organizations who wish to work with rich media tools. For many, this adds another information silo into the mix, making it even more difficult to work efficiently. Can content services offer an integrated solution?

### KEY SOLUTIONS

#### BEYOND DOCUMENTS WITH RICH MEDIA

Many content services platforms have some of the tools required to deliver rich-media-related capabilities, but only a few have enough coverage to offer genuine DAM functionality. To properly service the growing need for integrated DAM-lite tools, content services platforms should provide:

- Flexible viewing options
  - The ability to deliver reduced resolution renditions to support remote or mobile requirements
  - Apply watermarks to protect confidential information and indicate the validity of a legal document
- (Meta)Data extraction
  - The ability to identify characteristics and elements in a photo or video frame
- Deliver integrated search to quickly find and leverage media for other purposes
- Intelligently categorize and organize rich media content
  - For example, by media type, subject matter, business unit, product, etc.
- Integrate workflows and business processes to use extracted data to drive new insights and process automation
- Deep integration to rich media editing and creation tools, such as Adobe Creative Suite
- Seamless integration into digital and web publishing tools

All areas of the business are increasingly encountering rich media. From dashcam footage usage in insurance claims to video transcripts for compliance purposes, rich media is here to stay. Modern content services tools offer significant benefits to organizations that need to work with rich media as part of their wider information management activities.

# Building the future

As we move to a post-pandemic world, organizations find themselves in a perfect position to invest and innovate around their information management practices. The ability of enterprises to move beyond remote work to a hybrid model is yet another test of the flexibility and agility of their information systems. Content services platforms, however, are ready for the challenge.





Content services platforms offer distinct new opportunities for information managers. Cloud-powered solutions provide employees, partners and customers instant and ubiquitous access to their key information anytime, anywhere and on any device.

Still, many business leaders struggle to know where to start to reap the benefits offered by modern content services platforms. For these organizations, we present a five-step roadmap to getting the most out of content services.

## 1 Imagine

For too long, organizations have been forced to constrain their expectations of business software. Modern content services platforms remove those constraints and allow information management leaders to think in terms of how they can help the business as they fuel their digital transformation journey.

Build a wish list of solutions, projects and features that help your staff, your partners and your customers. Dare to dream big, and the results could be spectacular.

## 2 Check the boxes

Once an organization has identified its business requirements, identifying the core content services functionality that is needed to address those requirements should be straightforward. Refer to the four main areas addressed in this ebook: content access, low code, intelligent automation and the benefits of accessing the power of the cloud.

Every vendor and content services platform will have strengths in different areas. Identify those that match your specific functional needs before moving forward.

## 3 Check the reviews

Enterprises have been using ECM and CSP tools for some time, and many are happy to share their views and experiences — both good and bad. Case studies, peer review sites and analyst reports are excellent resources when identifying potential platforms. Take the time to review as many of these resources as possible.

## 4 Try it out

Modern CSP vendors make frequent references to agility and the speed at which new solutions can be created. So put them to the test! Before committing to any new platform, organizations should look to try it out — whether by performing a proof of concept or running a small pilot project with clearly defined goals and success criteria.

## 5 Get moving

The key to any project is to get it started. Technology is moving faster than ever, the amount of content is growing at exponential rates and every day you delay moving to a modern content services platform gives your competitors an edge. To paraphrase an old saying: “There are only two days when nothing can be done. One is called yesterday; the other is called tomorrow. Today is the right day to do.”

Content services is much more than just a successor to enterprise content management systems. The move to remote work may have accelerated the digital transformation of organizations over the last couple of years, but content services is the platform that will enable them to continue that drive for the next decade and beyond.





## About Hyland

Hyland provides a complete view of the right information to the right people, where and when they need it. Serving as a content services hub, we smartly surface content in context by connecting data and systems across the enterprise. By providing users with easy, secure access to complete information — anytime, anywhere, on any device — we enable organizations to digitally transform and facilitate more responsive, meaningful interactions. By harnessing innovative and intelligent automation technologies that anticipate the needs of users and customers, we help organizations and their employees focus on high-value tasks to develop more meaningful, relevant connections with the people they serve.

# Hyland<sup>TM</sup>

Learn more at **Hyland.com**

