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IDC TECHNOLOGY SPOTLIGHT

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Cloud growth is driving executive mandates for new, cloud-first business strategies, IT resource shifts, and innovation that on-premises content management will struggle to deliver.

Digital Transformation: Removing Adoption Barriers to Cloud Content Services

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Introduction

Enterprise executives are choosing cloud-first innovations at a rapid pace. When it comes to potentially disrupting critical data and processes that keep a business running smoothly, some ask if the risk of moving a proven, albeit aging on-premises enterprise content management system is worth the reward offered by agile cloud content services platforms. The future of work and how people want to interact with information is changing; new regulations demand robust information security, team file sharing and collaboration span time and space, and intelligent automation is ready for prime time. Choosing to move to the cloud is an arduous decision — identifying business process improvements across the enterprise and technology resource freedom in IT can make that decision easier. This IDC Technology Spotlight highlights the benefits and advantages of migrating content management to a cloud-based content services approach offered by Hyland.

AT A GLANCE

KEY STAT

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KEY TAKEAWAY

Hyperagile and hyperscalable cloud applications will be critical to managing the enterprise data deluge and performing complex content-centric tasks in a timely manner.

Cloud Content Services Outpace Traditional On-Premises Content Management

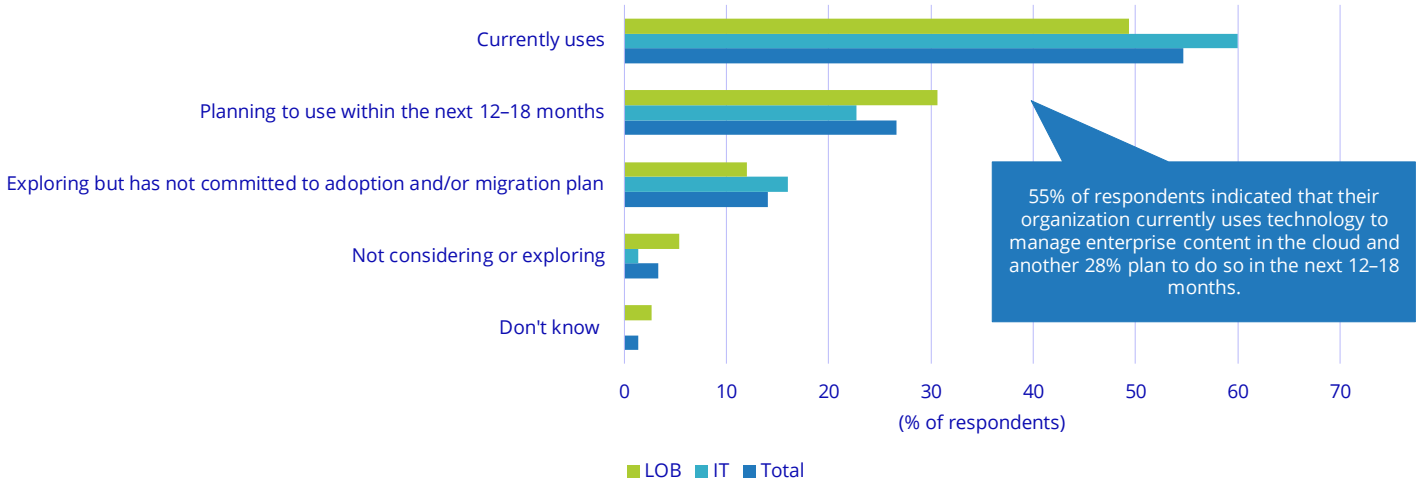
We are seeing a dynamic market shift of content management moving to the cloud driven by optimistic buyer expectations and continuous vendor technology innovation. Cost and business agility are top reasons buyers choose to move to the cloud. Consider that implementation of traditional on-premises systems often takes longer and has higher up-front costs than implementation of their cloud counterparts. On-premises software also requires ongoing budget to support the system, and maintaining it 24 x 7 can be a drain on internal IT staff. Software upgrades, often performed only once a year, will be quickly obsolete given the rapid pace of change today. For example, security protocols are constantly updated to meet the demand and sophistication of data threats. Investment in education and skills to address this demand is time intensive and expensive, not to mention that missing an update may leave organizations vulnerable to costly data breaches.

Next, consider the cost of storing and retrieving the growing amount of business-actionable data. According to IDC, the global datasphere will grow to 163 zettabytes (i.e., a trillion gigabytes) by 2025 — 10 times the 16.1 zettabytes of data generated in 2016. While this data will unlock unique digital experiences and new business opportunity, the proliferation of the Internet of things (IoT), mobile, and social data will create challenges for IT staff in the areas of data protection, security, governance, and infrastructure management. Hyperagile and hyperscalable cloud applications will be critical to managing the enterprise data deluge and performing complex content-centric tasks in a timely manner. IDC data shows that the ability to perform advanced analytics on archived data to support big data initiatives was the third-most important capability considered by respondents when choosing their archive solution. Buyers are enticed by the limitless, cheaper, and more effective storage options in the cloud.

There is a growing comfort level among executives to run mission-critical business applications in the cloud, as shown in Figure 1. According to a 2018 IDC survey, 55% of organizations are already using the cloud for their enterprise content applications and another 28% plan to use the cloud in the next 12–18 months.

FIGURE 1: ***Content Management in the Cloud***

Q ***Does your organization currently use or plan to use technology to manage enterprise content in the cloud?***



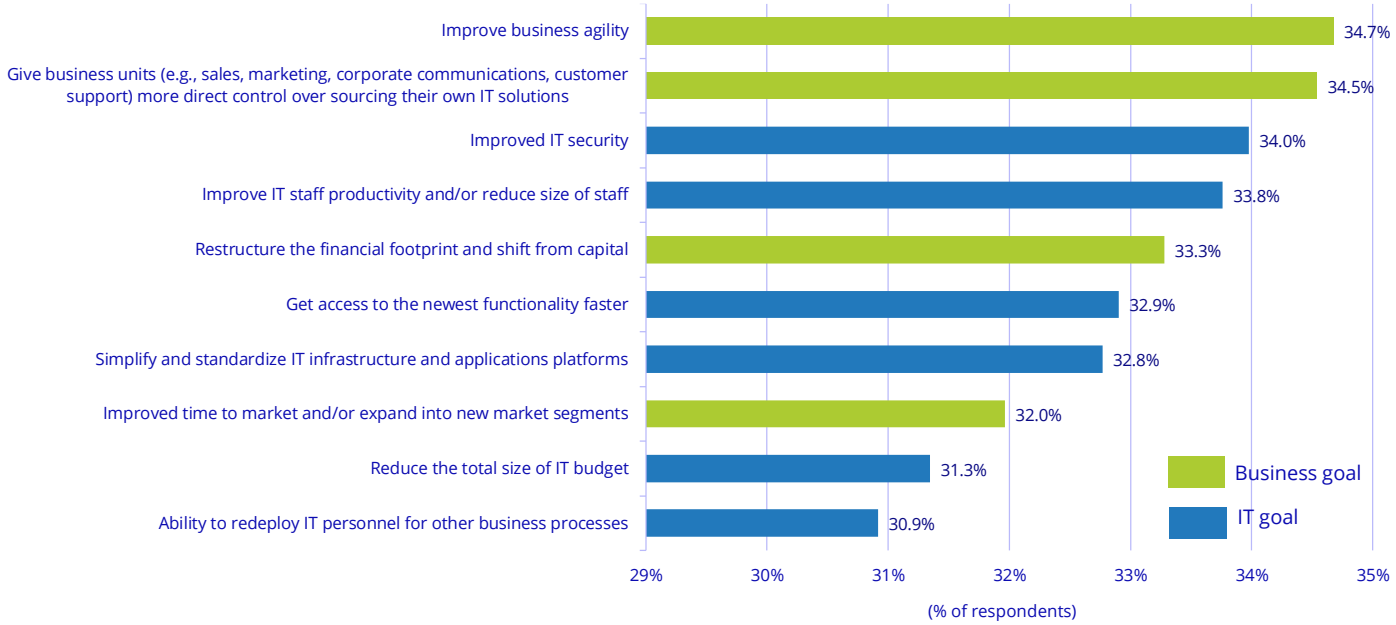
n = 150

Source: IDC's Managing Enterprise Content Survey, March 2018

According to IDC's 2018 *CloudView Survey*, the top 3 drivers for moving to a private cloud were security (52%), agility (43%), and simplified application platforms (42%). There is a perception that security is best handled in-house and that the cloud increases security risks. However, security has long been, by far, the top driver of private and public cloud adoption. The biggest increase came in "Get access to the newest functionality faster," rising from 32% in 2017 to 40% in 2018, for a 25% increase in priority. Respondents expect to receive several business and IT benefits when moving to the cloud, including improved business agility (34.7%) and IT staff productivity (33.8%), as shown in Figure 2.

FIGURE 2: ***Benefits of a Multicloud Strategy***

Q Which benefits do you expect to achieve from your organization's cloud strategy?



n = 3,726

Base = respondents who indicated their organization currently has a multicloud strategy (overall public and private cloud environment)

Notes:

This survey is managed by IDC's Quantitative Research Group.

Data is not weighted.

Use caution when interpreting small sample sizes.

Multiple responses were allowed.

Source: IDC's CloudView Survey, April 2018

Common challenges of on-premises content management applications that trigger a drive to the cloud include the following:

- **Desire for faster revenue pace.** The line of business cannot wait on internal IT backlog where new products take years to get into a user's hands. Cloud services can support IT with an agile environment for applications (faster application provisioning times and improved responsiveness by applications), which will help increase revenue by building new revenue-generating products and services faster.
- **Free IT resources.** IT is asked to do more with less, and the standardization of cloud platforms will allow IT to move resources to other initiatives. Enterprises will look to transform and migrate existing technologies, including legacy architectures, to new digital delivery platforms (e.g., cloud, IoT, cognitive) that reduce IT oversight.

- **Compliance.** Reporting on privacy, data security, and government and industry compliance can be a herculean effort if the controls and processes are not already in place. The newer European Union (EU) GDPR regulations and older initiatives such as FedRAMP and FISMA continue to drive the need for archiving and information management. IDC anticipates that these regulations will become more complex (and fines will be more significant) over time as data volumes grow.
- **Security.** There is an increased need for advanced, broad, and proven security techniques for problems that plague IT staff. Advanced security detection, analyzed behavior, correlation to black-and-white threat lists, and predictive vulnerability points are requested across public, private, and hybrid cloud delivery models.
- **Improved availability.** There is a need to reduce downtime of applications and offer 99.99% availability (i.e., only 52.5 minutes of downtime per year) to clients. Expanding investments in automation and cloud platforms, such as bare metal servers or managed containers involving Kubernetes and Docker, allow the business to run more effectively.

Investment in cloud spending grows as customers realize that specializing in running core business applications internally is not a sustainable strategy in an environment of rapid change. IDC's *Worldwide Software as a Service and Cloud Software Forecast, 2018–2022* shows that the public cloud software market grew 22.4% for 2017–2018. The forecast for SaaS and cloud software continues to show strong growth at a 2017–2022 compound annual growth rate (CAGR) of 19.2%.

While SaaS dominates cloud spending, many buyers prefer a managed private cloud service for their enterprise application deployment. According to IDC research on buyer expectations for managed digital services, most U.S. firms (78%) indicated that the cloud platform (PaaS, IaaS, SaaS) is the most critical platform for managed service providers to own and manage for success. In addition, the majority of U.S. firms (68%) indicated that they would prefer to work with service providers that have their own platforms (e.g., cloud, cognitive, IoT, mobile) as well as utilize platforms from other third-party service providers for better cost savings and limitless storage capacity.

Business Value of Adopting Cloud Content Apps

Beyond the historical cost savings of moving to the cloud, there is also opportunistic return on investment (ROI) to be gained. Organizations that are looking for best practices to mitigate risk and control cloud migration cost should consider easy add-on modules that extend the benefits of the upgrade to a wide range of stakeholders where value can be accrued outside the traditional enterprise content management domain. Cloud content apps can solve business problems such as improving customer retention, building industry expertise, or addressing new competitive threats with cross-department use of shared data and analytics.

For example, analytics and robotic process automation (RPA) tools are essential differentiators for cloud content services platforms because of their ability to handle large-scale data sets to improve and automate content-centric processes, identify anomalies, and contribute to complex workloads. Legacy systems, especially desktop or inbound data collection systems, have years of accumulated complexity and variability. The cognitive era is making automatic identification, classification, and extraction of content from unstructured or highly variable documents easier with natural language processing, text analytics, and machine learning technologies.

Applying intelligent capture to these complex tasks can help significantly reduce labor and paper costs and deliver meaningful information for better decision making. In surveying lines of business about their RPA adoption, IDC found that organizations using RPA for claims exception handling have reported a 66% reduction in human intervention and a 40% reduction in claim review time. It is best, however, to use the move to the cloud to look beyond obvious automation of a single process and more broadly reorganize the work for true digital transformation.

The emergence of application-centric cloud platforms and associated marketplaces provides ecosystem partners with ever-expanding opportunities and buyers with nearly unlimited choice. Partners and developers can provide value via industry expertise and prebuilt solutions using standard capabilities in the platform. Vendors should offer robust APIs, tools, education, and a supported development community to make it easier to customize the solution as needed.

An organization's business case checklist should also include simplified licensing that scales with business seasonality and needs. Renewals should be automatic and cascade out to users to avoid disruption to service. IDC data shows that buyers prefer (pay-as-you-go) usage-based capacity (33.4%), usage of services (28.4%), and fixed fee per time unit (e.g., daily, weekly, monthly, annually) (26.5%) models. Combined with a shift to operational expense (opex) spending, in-app purchase of new features can be deployed on-demand. Cloud economics offers predictable expense planning and elastic scalability so that organizations do not overprovision resources and pay for infrastructure they do not need.

Improving Technology Impacts

Executives are more often choosing a "cloud first" approach when determining where mission-critical application workloads should reside. Customer expectations for flexibility and portability have increased, and there is a general expectation that these features come at a lower cost in the cloud. On-premises applications will have to overcome technology hurdles that cloud-native applications have already vaulted with hyperagile and hyperscalable architectures.

As organizations strive for zero downtime and zero data loss for business-critical applications, enterprise IT teams must maximize resources and ensure that they can recover quickly and securely in the event of a disaster. Big data analytics, IoT, and artificial intelligence (AI) have placed even greater loads on these environments. The legacy model of building separate datacenters for disaster recovery is less attractive in the cloud era. IDC estimates that today, almost half of all companies would not survive a true disaster because they chose to accept the risk rather than expend the time and money for a disaster recovery plan. With the right cloud solution, IT would benefit from near-continuous availability and improved key metrics such as recovery time objectives (RTOs), recovery point objectives (RPOs), and reduced total cost of ownership (TCO) by avoiding up-front capital outlays and expensive ongoing support costs.

Modernized technology also brings operational advantages. Like the impact virtualization had on datacenters, microservices and containers will provide the same efficiencies in application development, deployment, and maintenance. Monolithic suites require the entire application to be revved for even the smallest component update. Microservices will isolate the risk and streamline the update to code changes. IT can also redeploy resources and reduce costs (e.g., space, power, and cooling costs can be recovered when growing storage demands are moved to the cloud). Microservices can also shift the burden of security and infrastructure standards to the cloud provider, such as supporting encryption or cryptography of audio or video. The cloud allows organizations to easily expand their geographic footprint to store data closer to regional customers and adhere to data regulation laws.

Cloud applications can reduce risk with automatic upgrades that are pretested for compatibility and benefit from crowdsourcing of innovation and security exposures. Continuous updates provide faster access to new features and trial software without worry about infrastructure compatibility. New, intelligent, hyperagile platforms will streamline operations with reporting and self-healing and deliver high-availability/secure regulatory environments.

In the future, innovation accelerators such as machine learning–based classification and content analysis for identification of sensitive information will help streamline labor-intensive and high-risk activities. Blockchain may be used for smart contracts to secure data along the process. In three to five years, quantum computing will accelerate the computationally intensive training time for AI systems — an added benefit of a hyperscaled cloud architecture.

Considering Content Services in the Hyland Cloud

The Hyland Cloud is the hosting platform for Hyland's suite of content services offerings, including OnBase, an enterprise information platform designed to manage content, processes, and cases. In 2004, OnBase was one of the first content management solutions to be deployed in the cloud. Since that time, Hyland has continued to grow its range of cloud-based technologies, services, and solutions, including ShareBase, a SaaS application for content sharing and collaboration.

Hyland has proven that it can deliver secure, highly available, and scalable content services in the cloud. Hyland Global Cloud Services fully manages critical daily maintenance functions of all infrastructure, hardware, and software associated with the environment. All Hyland Cloud datacenters boast SOC 1, SOC 2, and/or SOC 3 certification.

Additionally, Hyland Global Cloud Services undertakes SOC 2 and SOC 3 audits annually and performs quarterly internal audits. Hyland's worldwide datacenters offer transparent data location policies identifying where data and systems are operated. These policies meet stringent data sovereignty and localized regulatory requirements, including HIPAA, GLBA, SOX, and SEC 17a-4. Clients can designate a primary geographical location for data storage and connect via global IP backbone dual-access routers connected to multiple nodes for high-speed access to content stored across systems.

Every implementation includes monthly uptime commitments and disaster recovery, including RTOs and RPOs. To allay any security concerns, Hyland conducts ongoing penetration and vulnerability testing and offers add-on dedicated governance risk and compliance services for its cloud solutions.

Hyland provides a robust developer and partner experience with APIs, zero-footprint HTML web clients, and integrations into popular enterprise back-end applications. Access to content services capabilities is available at all layers of the stack to configure or extend an existing application or build a new application out of components and APIs. In addition to OnBase and ShareBase, the application portfolio includes Brainware for intelligent data capture; Content Composer for personalized omni-channel communications; Perceptive Content for content and process management; vertical applications in Hyland Healthcare for clinical documents; and LawLogix Guardian and Edge for immigration case management and I-9 and E-Verify compliance.

Differentiation in cloud content apps sees the pendulum swinging to vendor viability and service over feature and function. Hyland's loyal install base of over 15,000 clients and partners is testament to the company's focus on client success. Hyland offers training for self-sufficiency and a community network for innovation and support. Serving over 800 lifetime cloud customers in 26 countries with several billon documents spanning petabytes of data, Hyland places value on managing cloud services with minimal disruption and claims 99.99% data availability/uptime to its customers.

Challenges

Advantages provided by microservices and container architectures are still in their infancy for enterprise applications, and like many providers, Hyland is just beginning this journey. The future of cloud content services applications will require Hyland to provide easy-to-use REST-based APIs and HTML components, a microservices library, and automated intelligence and RPA capabilities.

Providers such as Hyland are looking to expand their offerings of fully SaaS deployed software, which presents not only myriad opportunities but also inherent challenges. These challenges could include moving clients to a new subscription pricing model, restructuring contracts to pay for autoscaling storage needs, and retraining staff on microservices and container frictionless upgrade practices. Hyland has an opportunity to minimize any negative impact to its customers as the company evolves its offering structure.

Moving workloads to the cloud has been a popular way to lower on-premises costs, but the move shifts the cost and service-level availability requirements to outside service providers. As a private cloud hosting provider, Hyland will need to invest in self-provisioning automation and quickly move to hyperscalable architectures to address elasticity and high-availability demands.

Conclusion and Essential Guidance

Organizations should embrace the inevitable digital transformation project with a sound provider. It is critical to work with a team that understands the demands of enterprise environments and delivers an architecture that mitigates downtime risk to near zero while rapidly accelerating recovery. On-premises legacy enterprise content management systems can no longer keep pace with the changing landscape of technology innovation and governance standards.

A new generation of cloud content apps will deliver a standard portfolio of cloud services and automation tools that enables rapid deployment and expansion, continuous enhancement, and attractive pricing options. As the capabilities for content management, sharing, and collaboration become standard content services in the cloud, enterprises will be under continued pressure to adopt this new way of work and move on a decision to adopt the cloud as the way forward. IDC believes the cloud content app market will continue to grow, and though migrating a content services solution to the cloud is a large strategic decision for any organization, the benefits and opportunities more than outweigh the challenge.

MESSAGE FROM THE SPONSOR

About Hyland

Hyland is a leading content services provider that enables thousands of organizations to deliver better experiences to the people they serve. With more than 300 employees around the world, Hyland is widely known as both a great company to work for and a great company to do business with.

Privately managed by a team of in-house experts, the Hyland Cloud is the purposefully built hosting architecture for a range of cloud-based technologies, solutions and services. The Hyland Global Cloud Services team leverages cutting-edge technologies and security-driven policies to ensure information is highly available to customers and authorized users — when and where they need it. The Hyland Cloud is a mature and proven hosting platform, intentionally designed and managed to support content services initiatives now and well into the future. For more information, visit ***Hyland.com/Cloud***.

About the analyst:

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Marci Maddox is Research Manager for IDC's Enterprise Content Strategies program, responsible for content workflow and technologies research. Her core research coverage includes the evolution of managing enterprise content, customer communications, content sharing and collaboration, esignature, forms, and capture solutions. Leveraging 15 years in content and process applications, Marci helps clients realize the future of AI, mobile, and cloud benefits for industry solutions.

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