IDC TECHNOLOGY SPOTLIGHT

Cloud and Enterprise Content Management: Realizing the Benefits of Cloud While Protecting Enterprise Content

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Cloud computing is enabling organizations of all sizes — in every industry — to benefit from unprecedented economies of scale and accelerate their pace of innovation. We've seen strong adoption of collaborative applications and enterprise applications in the cloud. More recently, we've also seen growing interest in — and adoption of — enterprise content management (ECM) in the cloud.

There are many benefits to deploying ECM in the cloud, including rapid deployment and shorter time to value, reduced IT effort and costs, the ability to shift capital expense to operating expense, flexibility and confidence around data location, and the ability to reprioritize IT resources to new IT investments that create new business value.

ECM in the cloud would seem an obvious opportunity, and yet a fair amount of confusion around the topic has held back adoption to some extent. This paper analyzes the current trends, key benefits, and top-of-mind issues for ECM in the cloud and examines the role of ECM vendor Hyland Software in this strategically important market.

Introduction

Today we are in the midst of a major technology shift to what IDC calls the *3rd platform,* and — as was the case during the previous platform shift (from mainframes to client/server computing) — it is transforming the way we build, deploy, and manage IT systems and applications. The pillars of this new platform are mobility, social, big data, and — especially — cloud. Organizations of all sizes and from every industry are evolving strategies to take advantage of cloud computing, in different ways and to different degrees, according to their needs.

Organizations are adopting cloud at various levels of the technology stack. For some, the journey to cloud computing begins with compute, storage, and network virtualization in the datacenter — enabling better utilization of resources — and infrastructure as a service (IaaS). For others, it extends up into the middleware layer and platform as a service (PaaS). Many have embraced cloud applications and software as a service (SaaS).

Organizations are also adopting different forms of cloud computing. Some are adopting public cloud solutions, while others are deploying private clouds. Indeed, IDC's cloud taxonomy defines five types of cloud, according to who hosts it (the organization or a service provider) and whether it is dedicated or shared, underscoring the need for customer choice.

Moving applications to the cloud can yield significant benefits and improve an organization's agility. For one thing, cloud computing offers many "economy of scale" benefits, such as much lower start-up costs, quicker deployment, and greater flexibility as resources (and costs) scale up/down dynamically, based on use. Cloud providers may also offer better service-level agreements (SLAs) around security, performance, availability, and system resilience than the organization's in-house IT department

can provide. Further, "outsourcing" day-to-day operations to a cloud provider lets the organization focus more of its resources on innovation and new applications that drive new business value.

The desire of organizations to realize these benefits is evident in the burgeoning spend on cloud at all levels of the stack, from systems infrastructure through middleware and applications. IDC expects spend on cloud software will more than double from $29.4 billion in 2012 to $67.3 billion in 2016 — a compound annual growth rate (CAGR) of 23%.

Today organizations are leveraging cloud computing for all kinds of enterprise applications, and we're seeing different types of cloud being used for different categories of enterprise application. SaaS (that is, multitenant software hosted on public cloud infrastructure) has been a popular deployment choice for many collaborative applications (conferencing, email, instant messaging, team collaborative applications, and enterprise social software) and customer relationship management applications (especially sales and marketing). Private clouds, on the other hand, are a good choice where organizations need to be able to customize the application (SaaS applications by their very nature are limited to built-in configurability) or wish to move existing on-premise applications to a cloud infrastructure.

As organizations increasingly move their business applications to the cloud, we are seeing growing demand for ECM in the cloud to support them — just as the need to provide ECM services to on-premise enterprise applications for business process automation has spurred the growth of on-premise ECM. Until recently, however, organizations have been somewhat cautious about moving enterprise information assets into the cloud. Barriers have included concerns about the security of those assets, which often involve customer information, employee information, product plans, and other sensitive intellectual property, and so forth, as well as the need to customize the ECM system to support their specific business processes, which may rule out SaaS ECM — or "cloud ECM." An ECM vendor that offers private cloud deployment — or "ECM in the cloud" — is the answer here.

There is certainly plenty of confusion in the market today — not just around private versus public clouds and SaaS but also around the role of the emerging file sync and share solutions. In the following sections, we identify key criteria for ECM in the cloud. In our experience, most large organizations require a fully featured ECM solution that readily integrates with all of their business applications and supports the full information life cycle — just as on-premise ECM does today.

Benefits of ECM in the Cloud

ECM in the cloud — that is, a private cloud ECM deployment hosted by an ECM vendor — lets organizations realize the many benefits of cloud computing while taking advantage of all of the power and functionality that a fully featured ECM solution provides:

- **Rapid deployment.** Because the vendor manages the cloud infrastructure, the organization is spared the tasks of procuring, installing, and configuring servers, storage, and software. Private cloud deployment can reduce the time required to provision a new ECM instance from weeks to hours, accelerating time to value.

- **Dramatically reduced IT effort.** ECM in the cloud frees up IT resources that would otherwise be required for initial system provisioning and ongoing management. The ECM vendor manages the entire hardware and software infrastructure — performing hardware and software upgrades, patches, backups, and other administrative tasks. Because ECM in the cloud runs on a shared infrastructure, compute and storage resources are dynamically allocated as usage grows, saving IT organizations the need to anticipate demand and provision additional infrastructure ahead of the growth.

- **Shift from capital expense to operating expense.** ECM in the cloud is typically sold by subscription, with hosting fees included as part of the monthly or annual subscription fee. This eliminates the need for a large initial capital outlay and makes expenses more predictable. It can also enable organizations to realize ROI within the same fiscal year as their deployment.

- **Data location choice.** Often, vendors that offer ECM in the cloud operate datacenters in multiple geographies. This allows organizations to manage sensitive information — for example, personally identifiable information (PII) — in compliance with local laws. This is extremely important for organizations with business operations in Europe because they must comply with laws in different jurisdictions that implement provisions of the European General Data Protection Regulation.

- **Innovation/new business value.** Outsourcing datacenter management to the vendor opens up opportunities to focus on innovation and new IT investments that drive new business value.

It goes without saying that any ECM solution in the cloud must ensure that sensitive enterprise content is properly governed and secured: It must provide the same degree of control as an on-premise ECM solution would. An ECM solution in the cloud, when provided as a managed service by an experienced vendor, may offer enhanced security, reliability, uptime, scalability, and disaster recovery compared with what on-premise IT organizations can guarantee.

ECM in the cloud makes enterprise information accessible to users anywhere, anytime and on any device — whether a desktop PC, laptop, smartphone, or tablet — without having to put in place a VPN or other access controls.

ECM in the cloud must be optimized to provide quick response time when accessing content over the Internet — whether uploading or downloading content or viewing documents and scanned images. Performance is critical for user adoption and productivity, and users must be able to upload and download big files individually or in (scheduled) batches without encountering performance problems or bandwidth limitations.

Further, an ECM solution in the cloud must provide the full set of ECM capabilities users depend upon today with their on-premise deployments. This includes the ability to integrate with a wide variety of enterprise applications — whether SaaS, private cloud, or on-premise.

Trends: Top-of-Mind Concerns for ECM and the Cloud

We are seeing growing interest in, and adoption of, ECM in the cloud, but a few perceived barriers remain. Let's explore them.

Security Concerns

The most common objection to ECM in the cloud is that content is safer when it resides behind the firewall. IT has good reason to be concerned about information security: Nearly a quarter of IT respondents to IDC's 2012 *Information Worker Survey* said their organizations had experienced an information leak in the past 12 months.

Ironically, content may actually be *safer* in the cloud than behind the firewall. For one thing, cloud providers typically offer and must adhere to more rigorous SLAs than the average IT organization. For another, putting content in the cloud can make it more accessible to those who need it. Content that is difficult to access usually finds its way from person to person via some less secure route, whether email, FTP, or one of the many consumer-oriented file sync and share services — and proactively providing a formal ECM system of record in the cloud can help alleviate this concern.

Security concerns may well dictate the *type* of cloud deployment that a particular organization is willing to use. For example, federal government agencies are rapidly adopting hosted private clouds (dedicated instances are hosted by the vendor) but have been somewhat reluctant to adopt SaaS (multitenant) solutions.

ECM in the Cloud and File Sync and Share Services

The rise of cloud collaboration creates fresh challenges for the management of enterprise information. File sync and share services give users access to their documents from their mobile devices and make collaborating with external stakeholders much easier, but they quickly create new silos of information that are ungoverned — increasing the risk of information leaks and information loss.

IT is concerned about user self-adoption of these services: Just over half of the IT respondents to our *Information Worker Survey* said their organization forbids the use of SaaS file sync and share services that are not expressly sanctioned and supported by IT, and another 22% said their organization actively discourages the use of these services.

Increasingly, organizations are looking to their ECM system to ensure that content shared with collaborators — whether internal or external – is properly governed. By providing "anywhere, anytime, any device" access to enterprise content, ECM in the cloud offers an alternative.

Customization Requirements

The degree to which an organization needs to customize its ECM implementation is another factor that determines the appropriate cloud deployment model. Whereas a "cloud ECM" (SaaS) solution may not be a good fit for a large organization with significant customization requirements, "ECM in the cloud" (private cloud, dedicated instance) gives the organization the flexibility it needs to customize the ECM instance for its particular business processes.

Cultural Issues

Old habits can be hard to break. For IT, ECM in the cloud means "letting go." IT organizations that see themselves as custodians of the ECM system can find it difficult to cede control (from an operations perspective) to a vendor-managed service. It's no coincidence that where cloud computing has seen strongest adoption (enterprise applications and collaborative applications), line-of-business (LOB) stakeholders are often the champions. For LOB buyers, quick and easy deployment combined with reduced dependence on IT (and a reduction in IT's current workload) is a big plus.

A shift to the cloud thus can require some cultural adjustment for IT organizations and may force IT to rethink the value it provides to the business. That said, we're hearing more and more CIOs articulate a "cloud first" IT strategy and characterize themselves as "cloud CIOs."

When Does ECM in the Cloud Make Sense?

ECM in the cloud is a viable option for any new ECM implementation. In addition, organizations should consider ECM in the cloud when:

- They need to get a new ECM system up and running quickly

- They want to test a new version of their on-premise ECM solution without impacting their live environment

- Their on-premise datacenter(s) require significant upgrades or expansion and/or ECM software renewal time is near

- Data location issues require that data be stored in specific locations rather than in a single centralized on-premise system

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Organizations need the freedom not only to choose their deployment model as needs dictate but also to change their deployment model after the fact. For example, an organization with a large IT staff and significant on-premise infrastructure that has a pressing need to be up and running quickly might start with ECM in the cloud and transition later to an on-premise deployment. Conversely, an organization may want to start with on-premise ECM today but migrate to the cloud in the future.

Considering Hyland Software

As one of the 10 largest ECM vendors in the world (and one of the fastest growing), Hyland Software has focused on automating document-intensive business processes for many years. Hyland's flagship offering, OnBase, combines document management, workflow, forms, and reporting.

Hyland has brought all of OnBase's capabilities (Capture, Access, Measure, Integrate, Process, and Store) to the cloud as a managed private cloud offering. OnBase Cloud lets customers benefit from the economies of scale of Hyland's managed services and at the same time allows them to leverage OnBase's full functionality. Because OnBase Cloud is deployed as a dedicated instance, it is fully configurable and customizable.

OnBase Cloud is sold as a:

- **Hosted solution:** The customer purchases the software, but Hyland hosts and manages it.

- **Subscription service:** Hyland provides the software, management, and hosting.

Either way, organizations can get started immediately without having to buy, configure, or deploy servers or deal with networking issues. As a fully managed service, OnBase Cloud provides the security, availability, and reliability that organizations need to manage mission-critical, document-intensive business processes and protect enterprise content. OnBase Cloud also makes it easy for organizations to add external users without giving them access to resources inside the firewall. This lets them extend access to content to their partners to support collaboration use cases.

Hyland has 10 years of experience providing ECM in the cloud, and it has optimized OnBase Cloud's performance over the Internet to ensure low-latency access to content. Hyland has also incorporated a number of cloud-specific optimizations into its OnBase Cloud offering, including:

- Services for bulk upload in addition to the bulk scanning capabilities that OnBase regularly provides

- The ability for customers to select the service-level parameters that are appropriate for them, essentially customizing their SLAs

Because the on-premise and cloud versions of OnBase are the same, organizations can freely move their OnBase implementations to/from the cloud and their on-premise datacenters without modification. This means customers can start in the cloud to get up and running quickly and move on-premise later if desired, or they can deploy on-premise and move to the cloud later as they evolve their cloud strategies. Larger enterprises that have geographically distributed operations can standardize on a single ECM supplier while making different deployment choices in different geographies.

Challenges

The biggest challenge for Hyland lies in replicating its success outside the United States as it seeks to grow internationally and within new segments as it seeks to expand its target market. With its recent acquisitions, Hyland has expanded its presence to the Nordics and has branch offices in Brazil, London, Switzerland, and Tokyo, as well as support organizations in Australia, Canada, France, Germany, India, Italy, Singapore, South Africa, and Spain.

Still, the company lacks the global operational infrastructure of the large IT platform vendors and will need to be selective when picking its battles internationally. Hyland will need to leverage its domain expertise in industries such as healthcare and insurance and focus on growth in specific regions. Hyland also has an opportunity to leverage its OnBase Cloud services to jumpstart its penetration of targeted international markets.

Conclusion

Organizations that have made significant investments in on-premise datacenters and IT staff will continue to run a mix of cloud and on-premise applications for some time to come, but over time, the enterprise computing infrastructure will move to the cloud — in one form or another. We will continue to see growing adoption of ECM in the cloud as the shift to the 3rd platform unfolds.

As we've seen, organizations stand to reap significant benefits from cloud computing, including faster time to value and accelerated ROI; reduced capital expenses and more predictable operating costs; improved SLAs around security, performance, availability, and disaster recovery; and the opportunity to shift IT resources away from "utility computing" to innovation and new applications that create new business value.

Organizations should consider ECM in the cloud whenever they deploy a new ECM system, need to get a new ECM system up and running quickly, want to create a test ECM environment separate from the production environment, face significant datacenter upgrades/software renewals for their existing ECM solutions, or need to deal with data location issues.

IDC believes ECM vendors need to offer cloud deployment options. Those that don't will find it increasingly difficult to compete in the coming years.

ECM vendors that provide both on-premise and cloud offerings offer maximum choice. Look for a vendor that offers full functionality regardless of the deployment option. The solution should include strong integration capabilities as well as enterprise-grade information governance. An ECM vendor that has experience delivering solutions for both on-premise and cloud will have a good perspective on the pros and cons of different deployment options and will be best able to offer advice and best practices to ensure customer success.