



WHITE PAPER

Hybrid ECM: The Future of Enterprise Content Management

Sponsored by: Oracle

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EXECUTIVE SUMMARY

The pace of digital business continues to increase as organizations seek to accelerate innovation and improve customer and employee experiences in a mobile, connected world. The ongoing shift to what IDC calls the "3rd Platform" – characterized by mobile, social, big data analytics, and cloud computing – is a response to these pressures.

Today's millennials and "empowered" users are bringing their own devices to work. They also bring their own applications to work when IT fails to provide the tools they need to be productive. Information workers need to share documents with both internal and external collaborators and peers, and they need access to their documents anytime, anywhere, and from any device they choose – laptop computer, smartphone, or tablet – so they can be productive on the go.

Over the past three years, we've seen viral adoption of file sync and share (FSS) services in the enterprise to address these needs. Users have unquestionably benefited, but the use of file sync and share solutions creates fresh challenges for the organization. File sync and share solutions create new silos of information, making it much more difficult to collect all of the information that's required for good decision making. These new silos also lack governance and control; this means the organization may lack a "single source of truth" for business-critical information. They also significantly increase the risk of accidental disclosure of sensitive or confidential information.

Organizations must ensure that enterprise content is findable, secure, and managed in accordance with governance and compliance policies. At the same time, organizations need to take advantage of the cloud and make cloud solutions an integral part of their IT strategy. Fortunately, leading enterprise content management (ECM) vendors are introducing hybrid ECM offerings to address the needs of both users and IT. Hybrid ECM provides the strategic platform that organizations need to manage enterprise content in the hybrid cloud/on-premise environments that will characterize enterprise IT for years to come.

This White Paper examines the benefits and pitfalls of "first generation" file sync and share solutions and discusses the requirements and benefits of "next generation" hybrid ECM solutions for both current and emerging use cases.

INTRODUCTION: WHAT'S AT STAKE FOR DIGITAL BUSINESS

The pace of digital business continues to accelerate as organizations in every industry strive to grow revenue and market share, build brand and customer loyalty, deliver product and service excellence, and streamline their operations in a mobile, connected world. The ongoing shift to what IDC calls the "3rd Platform" – characterized by mobile, social, big data analytics, and cloud computing – is a response to these pressures.

Increasingly, the customer conversation is a digital conversation – one that takes place across a mix of online channels, including the Web, social networks, and mobile apps. It's also a conversation that today's tech-savvy and "empowered" consumers increasingly drive. It's no wonder, then, that the majority of organizations that IDC has surveyed already have a customer experience initiative of some sort underway.

Similarly, the world of work is changing as a globally distributed workforce increasingly connects over digital channels. IDC research shows that many companies are making the employee experience an important focus as they seek to attract and retain millennials and talented younger workers. Modern productivity and collaboration tools are an important ingredient of the employee experience.

Always on and always connected, both customers and employees expect to have instant access to people and information anywhere, anytime, and from any device. Today, 1.6 billion people around the world access the Internet using a mobile device; by 2018, there will be 2.5 billion mobile Internet users. In developed economies, more than 90% of the population accesses the Internet using a mobile device.

Mobility and Collaboration in the New World of Work

In the information economy, the ability to quickly generate new ideas, bring new products and services to market, and resolve customer problems becomes a key competitive advantage. This, in turn, raises the value of collaboration within the extended enterprise – that is, with employees in other locations and departments across the company and with customers, partners, and suppliers. Mobility and easy-to-use cloud services are transforming work by making it easy to share information with people inside and outside the organization and enabling users to work productively while on the go, using their device of choice.

Information workers spend about 10% of their time every week collaborating with people from outside their organization. Most of these workers, 90%, say they need to work with others across organizational boundaries, geographies, and time zones. The majority of them also work part of each week from a remote location – a customer site, a home office, or while traveling. They are increasingly mobile first and sometimes mobile only. (In developed economies today, two-thirds of information workers use a mobile device for work.)

Information workers are also independent minded. They bring their smartphones and tablets (BYOD) to work and expect the organization to connect them to the corporate network and email system. (As IDC research shows, the vast majority of corporate networks support employee-owned devices today.) They also bring their own applications (BYOA) to work when IT fails to provide the tools they think they need to be productive.

In addition, most information workers are using file sharing services and other cloud-based productivity tools on their PCs and mobile devices today – whether or not these services and tools are provisioned by IT. IDC believes that file sync and share is the most widely adopted BYOA application in the enterprise today.

The Benefits of File Sync and Share Solutions

There is no question that cloud file sync and share solutions have been a boon to users. Intuitive and easy to use, they address two critical and previously unmet needs: the need to work with documents using mobile devices and the need to share information with external collaborators. Before cloud file sync and share solutions became available, users were forced to rely on email with all of email's attendant problems. Cloud file sync and share solutions eliminate problems with email attachment size constraints, and they give users a place to store and share project documents with an extended team.

Cloud file sync and share solutions are essentially virtual network drives in the cloud with sync clients for desktop and mobile devices that enable offline access to information and propagate updates. Many FSS solutions have file previewers that let users view files without needing to install the accompanying authoring tool (which is often not an option, especially on a mobile device).

As with LAN-based team sites and content management systems, a shared file system enables users to find and iterate on the latest version of a work-in-progress document (thanks to versioning support). This helps streamline the revision process and saves users time that they would otherwise spend filing email attachments and managing copies of project documents on their personal drives. Because files are arranged in folders and users are managed in groups, it's easy to add new collaborators and grant them access to existing project files.

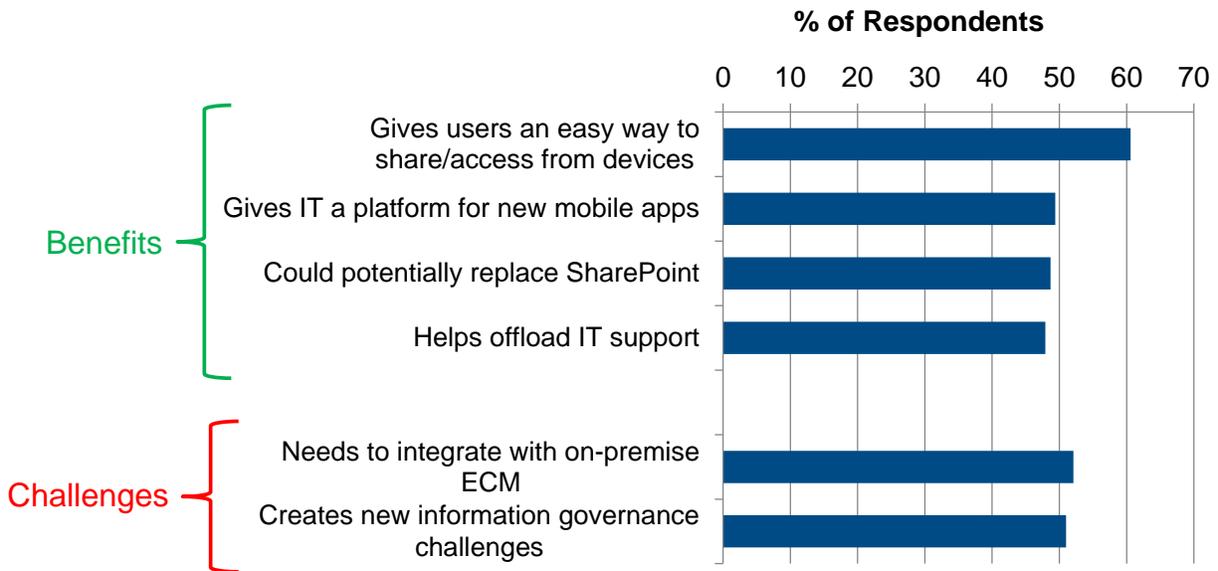
Unlike LAN-based team collaboration and content management systems, cloud FSS services are user provisioned and managed. This gives users greater freedom and helps offload IT support. Inexpensive editions can be purchased using a credit card; entry-level editions are available for free. Not surprisingly, file sync and share solutions have dramatically cut into the use of SharePoint for team sites.

File sync and share solutions have brought some additional unexpected benefits. In some organizations, they have replaced aging unreliable FTP servers – servers that were intended for business-critical information exchange but that were often located in remote locations with no IT support. FSS solutions have also filled the need for desktop backup in some companies. They can also help defer the cost of additional server-attached storage.

Figure 1 shows some of the benefits and challenges associated with FSS solutions.

FIGURE 1

Benefits and Challenges of File Sync and Share



n = 269 IT respondents who said users are using FSS (whether IT or user provisioned)

Source: IDC's *ECM Strategy Survey*, April 2014

Limitations of File Sync and Share Solutions

There have been many well-publicized cases of FSS users inadvertently sharing confidential or sensitive information via public links. FSS solutions bypass the protections that organizations have put in place over the years to prevent the emailing of documents containing proprietary or personally identifiable information (PII).

IDC research shows that more than half of organizations suffer some kind of information leak each year, and the use of "first generation" consumer-grade FSS solutions certainly increases that risk. These solutions lack robust administrative capabilities, enterprise-grade security and access controls, enterprise usage tracking and reporting, and connectors and APIs that are required for integration with enterprise systems such as the organization's directory and identity services, mobile management services, and business applications.

Enterprise file sync and share (EFSS) solutions are designed to remediate these problems, and they also enable enterprises to extend their business applications with secure cloud and mobile content collaboration. IDC's survey research shows strong demand for mobile capabilities such as notification and approval workflows (66%), content sharing (65%), on-device content previewing and editing (54%), document scanning for business workflows (52%), image uploading (51%), local syncing for offline access (47%), saved searches (48%), and the ability to push content based on rules and policies (31%). EFSS solutions offer IT a platform for document-centric mobile and cloud apps.

EFSS solutions, however, are not full-fledged content management systems. They lack the metadata management, workflow, policies, and governance controls that organizations rely on to manage enterprise information throughout its life cycle and ensure regulatory compliance. They also lack the advanced capabilities that make ECM systems such a good foundation for the development of case management and other content-centric enterprise applications.

Indeed, we see EFSS and ECM as highly complementary. Enterprise file sync and share solutions are beneficial to users and IT as a platform for extending business applications to the cloud and mobile devices; however, organizations still see significant challenges. More than half, 51%, of organizations that have adopted file sync and share solutions say FSS creates fresh information management and governance challenges; in addition, 52% of organizations believe FSS must be integrated with their on-premise ECM system (refer back to Figure 1).

New Information Silos

Organizations that allowed users to self-deploy SharePoint team sites in the past will remember how quickly they proliferated. We have spoken with organizations that had thousands or even tens of thousands of SharePoint team sites, all containing documents of unknown value, currency, and sensitivity. FSS "sites" are proliferating just as rapidly today as FSS has replaced SharePoint for team sites. File sync and share is the "SharePoint problem" on steroids as cloud silos are far more difficult to "discover."

As standalone cloud applications, FSS solutions create new information silos that are disconnected from the rest of the organization's IT infrastructure. These silos must be separately searched and managed. Information scattered on consumer FSS sites may be completely invisible to the organization (unless users sync all documents to their desktop). As a result, when employees leave the company, information that resides in personal accounts is easily lost.

Approved final-form documents may never find their way into the ECM system. At the same time, the organization winds up with multiple copies of documents and may have no idea where the master copy resides. There is no single source of the truth. There is also no mechanism for ensuring that business-critical documents are preserved and governed in accordance with compliance requirements and retention rules. As the amount of information on FSS services grows, we believe that dealing with redundant, outdated, and trivial content (ROT) will become a major concern. Finally, FSS solutions typically don't do a very good job of externalizing existing content. This means users must plan ahead and copy everything they think they'll need to the cloud. Documents that are copied from systems of record to the cloud, however, lose their identity and their context. They become new files in the cloud, stripped of their metadata, history, policies, access protections, and linkages with enterprise applications.

This is unfortunate because there are many use cases where business processes could benefit from in-stream ad hoc collaboration. Take insurance claims processing, for example. FSS offers a mechanism for the insured, the appraiser, and the adjuster to collaborate and exchange documents, accelerating the downstream claim adjudication process, which is a case management application. As another example, consider contract life-cycle management. There is an initial high-value collaborative phase as the business agreement is solidified. Then there's the post-signing contract management and compliance phase. These are only two examples of a very broad class of applications that could benefit from extending back-end business processes to a collaborative or customer self-service process through a file sync and share user interface.

Hybrid ECM: The Best of Both Worlds

What's needed is a solution that combines the convenience of file sync and share with the information management and governance capabilities of ECM. This solution is the hybrid ECM. Hybrid ECM supports the organization's broader content collaboration and content management needs in an integrated single-vendor solution (see Figure 2).

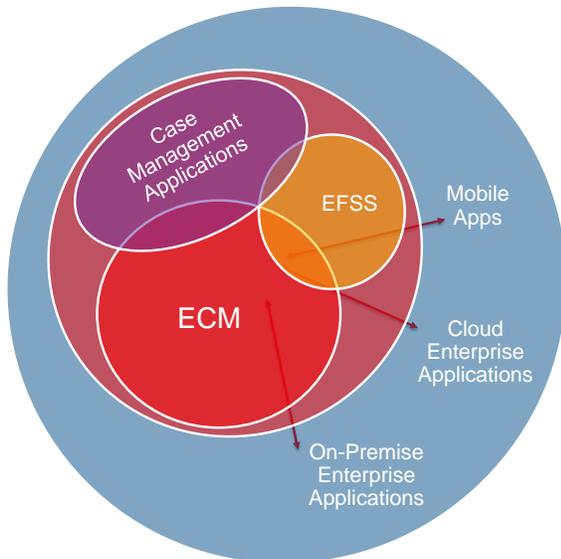
Hybrid ECM supports a broad array of use cases, including:

- Ad hoc collaboration in the mobile, extended enterprise
- Externalizing enterprise content – both for mobile access and for sharing with external collaborators
- Collaboration-enabling enterprise business processes, whether on-premise or in the cloud

In all of these use cases, the organization benefits from improved team productivity; streamlined review and approval processes; more trustworthy, correct, and current information for decision making; and improved governance and compliance.

FIGURE 2

Hybrid ECM Supports the Full Range of Content/Collaboration Use Cases



Source: IDC, 2015

Ad Hoc Collaboration

Ad hoc, unstructured collaboration is the simplest use case and is typically where FSS adoption starts. Hybrid ECM gives users the ease of use, mobile device support, and ease of sharing they need to be productive while ensuring that information is properly secured and governed throughout its life cycle.

Enterprise-grade file sync and share capabilities include granular security controls, robust administrative tools for IT, a complete audit trail, and detailed reporting. Advanced solutions may offer or be integrated with digital rights management, e-signing, editing tools, commenting and annotation tools, file previewers, and so forth.

Popular team collaboration use cases include:

- Marketing departments that need to collaborate with external agencies on advertising and launch plans
- Sales, business development, and strategic alliance teams that need to collaborate with customers and partners; partner and channel sales enablement
- Procurement and strategic sourcing teams that need to publish RFPs, RFQs, and RFIs to potential suppliers and solicit bids
- Legal teams that need to securely exchange contracts and disclosure documents with outside counsel
- Research and development organizations that need to exchange information with collaborators
- Groups that need to share information with the board or investment banks for merger and acquisition activities

Externalizing Enterprise Content

Standalone FSS solutions require users to copy information that resides in the organization's ECM system to the cloud before they can access it using their mobile devices or share it with collaborators. This takes time and forethought; consequently, users on the go often don't have access to the content they need.

Even worse, documents that are copied to the cloud lose all of their context. They become "new" documents, and any connection to the original document in the ECM system is severed. Policies, permissions, and metadata are also lost, so the FSS user must essentially re-implement security controls on the copies. With a hybrid ECM solution, however, context and controls are retained and the content continues to be governed. Users are spared the uncertainty of determining which document is the right document.

Finally, users are forced to search multiple systems for the information they need by using a variety of different interfaces. Standalone FSS solutions are one more silo that must be individually searched, however with a hybrid ECM solution, users have transparent access to all enterprise content from a single user interface.

Collaboration-Enabling Core Business Processes

Organizations need to be able to integrate file sync and share functionality with core business processes for a broad range of high-value use cases. In some cases, it might be as simple as adding file sharing to existing applications. In other cases, it's about extending existing business processes with ad hoc collaboration capabilities, which provides a level of automation and visibility for interactions that must otherwise take place using email or some other mechanism that is entirely external to the business process. Examples include:

- **Customer self-service portals.** Embedding document sharing within portals ensures a consistent branded experience.

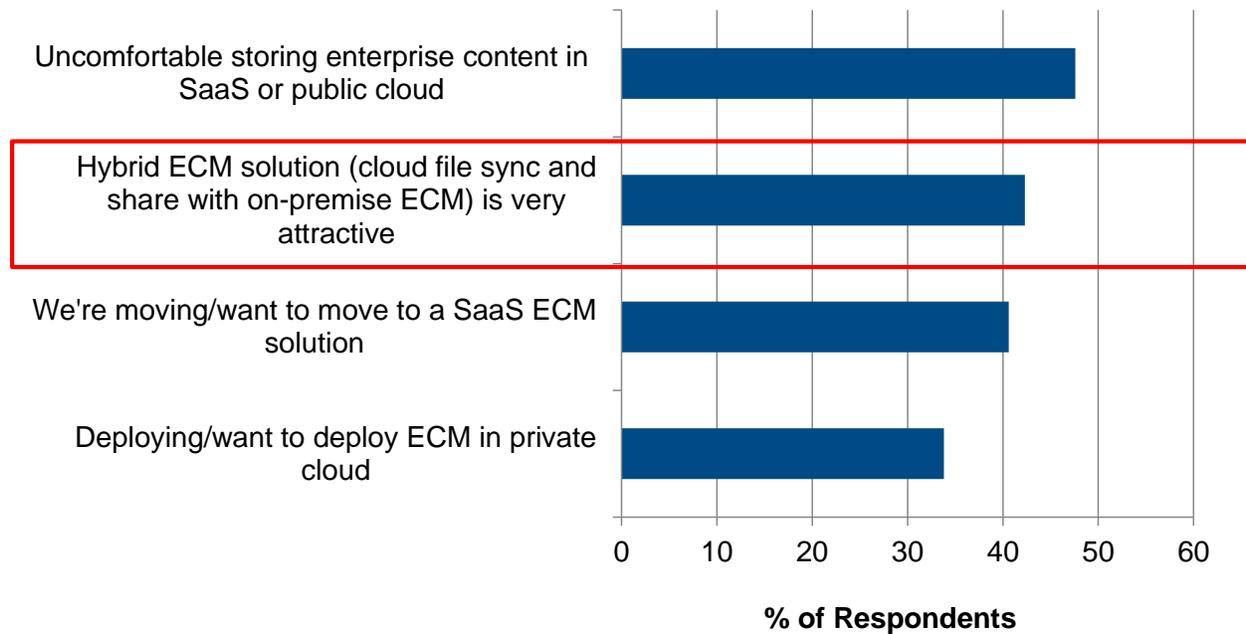
- **Enterprise applications.** Many business processes require the exchange of documents with external users. Applications such as CRM, ERP, HCM, SCM, and "case management" applications are implemented atop the ECM system.
- **Mobile field-service applications.** Mobile field workers in healthcare, engineering and construction, oil and gas, appraisal and inspection services, repair and maintenance, retail, and other industries must be able to access and capture information while onsite, often without a network connection.

In all of these use cases, documents are often business records. A hybrid ECM solution ensures that they are properly managed and governed in accordance with company policies. IDC research indicates that organizations are beginning to think about moving content to the cloud in one form or another.

IDC research also shows a growing interest in cloud content management (see Figure 3). However, organizations need help understanding what their choices are. As we've shown, the goal is really cloud availability and accessibility of content – however that is achieved. Nevertheless, more than 40% of the organizations we've surveyed see hybrid ECM as an attractive approach. IDC believes that a hybrid ECM solution will also allay the concerns of organizations that are uncomfortable storing enterprise content in a public cloud solution.

FIGURE 3

Enterprise Interest in Different Cloud Content Collaboration Approaches



n = 485

Source: IDC's *ECM Strategy Survey*, April 2014

Where to Look for Leadership

IDC believes that ECM vendors will be the innovators in this space as file sync and share capabilities become commoditized and organizations shift their attention to security, information life cycle, governance, and mobile/cloud-enabling critical business processes.

Pure-play FSS vendors that started out as consumer plays and have only relatively recently begun to add enterprise security features will find it increasingly difficult to compete for enterprise customers. We expect to see significant consolidation in the file sync and share market over the next few years as pure-play vendors vie for share and are forced to compete with ECM vendors that have broader offerings. We also expect to see all of the leading ECM vendors offer an integrated file sync and share capability within the next two to three years, although there will be differences from vendor to vendor in terms of the capabilities offered.

Customers should look for a solution that combines the strengths of enterprise-grade FSS with robust enterprise content management capabilities in an integrated and seamless way. Although Oracle's hybrid ECM offering is new, Oracle is already engaged with customers in hotels and hospitality, retail, wholesale, legal, scientific research, transportation, and energy, among others. (We interviewed several Oracle customers and partners as background for this paper.)

IDC believes that the choice of an EFSS solution should be a strategic investment instead of a tactical investment. This is a platform decision, and it should be made in the context of the organization's existing investments in enterprise applications, content management systems, and IT architecture. As history has shown, it is costly to replace applications once deployed. Standalone FSS solutions with dozens of integrations may prove to be difficult to unplug down the road, if the organization decides to change course. Organizations that adopt a hybrid ECM solution with strong EFSS capabilities will be able to tackle the full range of use cases while enjoying the benefits of an integrated solution and single-vendor support.

CONCLUSION

The shift to the 3rd Platform is a long-term trend. The key to success is the ability to leverage and extend investments in 2nd Platform technologies and applications. Organizations need a content management strategy that is nondisruptive yet affords the agility they seek from the cloud.

Ad hoc, consumer-grade file sync and share solutions represent a weak link – a loophole in the organization's content management policies and procedures that leaves it vulnerable to information leakage and loss. Enterprise file sync and share solutions have much stronger security and administrative capabilities. At a minimum, organizations need to replace consumer-grade FSS solutions with EFSS.

Organizations that adopt standalone enterprise file sync and share solutions risk creating content silos that are unmanaged and ungoverned, which creates both business risk and compliance risk. Organizations that saw viral adoption of user-deployed SharePoint team sites know all too well that they will be grappling with unmanaged content for a long time as usage grows.

Hybrid ECM, which combines the strengths of EFSS and ECM, gives users and IT the best of both worlds by enabling the organization to extract full value from enterprise information. Hybrid ECM addresses the broad range of use cases. It not only supports ad hoc content collaboration but also is the next-generation platform for content-enabled applications of all kinds, both on-premise and in the cloud.

Hybrid ECM helps overcome the challenges related to supporting mobile and external users while leveraging existing investments.

Without a hybrid ECM solution, organizations are left to manage and govern on-premise enterprise content and cloud-based collaborative content separately – in two different worlds. IDC believes that these worlds need to come together.

The good news is that hybrid ECM solutions are now becoming available from some of the leading ECM vendors. Organizations can get started today.

Getting Started, Best Practices

IDC recommends that organizations initiate a discussion with their ECM vendors about hybrid ECM. It's wise to begin with a proof of concept and pilot deployment. If groups within the organization are already using one or more standalone FSS solutions, it will be important to craft a migration plan to convert existing FSS users to the new platform while factoring in any integrations.

It's a good idea to assess existing folder/file hierarchies because there are often ways to improve on existing implementations, especially where they have been entirely grassroots. Establish a center of excellence to assist users with questions and onboarding and to ensure strong adoption.

Organizations should assess their current strategy in light of the following questions:

- Are users clamoring for easy-to-use file sync and share solutions because they need to access documents from their mobile devices or they need to share documents with external collaborators? Are users adopting consumer-style file sync and share solutions on their own?
- What's the level of confidence that the information stored on these cloud services is adequately protected? What's the likelihood that some of that content is sensitive or confidential or contains personally identifiable information? Is the organization at risk of inadvertent disclosure of confidential information or noncompliance with privacy regulations?
- How knowledgeable are users when it comes to the organization's policies and procedures for managing sensitive and confidential content? Are they able to readily identify documents that need to be placed under records and retention management? Can they be trusted to take appropriate actions to ensure content is managed and governed in accordance with company policies?
- Does the organization have master copies of all business-critical documents in its enterprise content management system? Does the organization have a single source of truth, or are master copies and approved documents stored in many different locations and storage systems?
- Is there a mechanism in place to ensure that important content stored in cloud FSS solutions is captured in the organization's enterprise content management system? Is there content stored on these services that should be declared as records and managed in accordance with the organization's retention and disposition schedules?
- Are the FSS solutions already in use integrated with the organization's ECM system? If so, how seamless is this integration? Does the current FSS solution provide previewers that let users on mobile devices view and potentially edit documents without requiring them to install an app?

- Is it difficult for users to find relevant content because it's scattered across a mix of on-premise and cloud systems? Does the organization have complete visibility into all of its content with a unified search capability?
- Does the organization have a solid foundation for delivering cloud and mobile content-based apps that address the broad range of content-enabled apps and help it differentiate its brand and provide superior service?

If one or more of these are pain points, it's time to think about a hybrid ECM solution. Cloud content collaboration should be an item on every organization's IT agenda.

IDC believes that it's important to choose a vendor that provides a broader platform and already has a leading ECM product in the market. As file sync and share capabilities are increasingly commoditized, emphasis will shift to the quality of the integration with the enterprise content management system and interoperability with enterprise applications.

Requirements will continue to evolve. Choose a vendor that can continuously innovate, add value to, and leverage existing content and application investments. Oracle's hybrid ECM solution should be on every customer's evaluation list, whether to externalize content for mobile/cloud collaboration or add FSS capabilities to the organization's business applications and content management system.

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