



Topic: Mobile

Issue: Who are the vendors that are battling to lead the mobile computing revolution?

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The Aragon Research Globe™ for Mobile Content Management, 2014

Summary: Mobile devices are changing the way content is accessed, shared and managed. Aragon Research introduces its first Globe for mobile content management and evaluates 19 major MCM providers.

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Mobile Content Management Is Here

Content management is at a crossroads. More content is being accessed and shared on mobile devices than ever before. There has been a lot of focus on sharing files, but mobile content management (MCM) goes further to look at the spectrum of content and how it can be managed in the cloud, on mobile devices and in some cases on-premise. This means that it goes beyond file sync and sharing.

A growing trend is the shift toward being able to manage mobile content as well as mobile devices and mobile apps. Managing critical content outside of repositories is what MCM is all about. While there are still many standalone MCM providers, increasingly, we see EMM providers beefing up this part of the suite in a big way. Given the huge growth we expect as tablets become more widely used in enterprises is the need to manage content that is part of a mobile worker's job.

Mobile security is a top priority in gaining managed control over smartphones and tablets in business, whether the devices are company-owned or BYOD. Content stored on those devices is a critical exposure, and protecting the intellectual property of the business demands a mobile content strategy. Although newer smartphones with modern OSs have device-level encryption to protect content, significantly more is needed to protect sensitive documents and valuable corporate intellectual property.

Mobile Content Management Defined

Mobile content management is more than just managing content, it is also about securing it, while also allowing collaboration around it. The key attributes we see in mobile content management include:

- Ability to store files in the cloud or in hybrid cloud models
- Ability for quick and easy access to content from mobile devices such as tablets and smart phones and other emerging mobile devices
- Mobile apps that make it easy to access and manage content.
- Ability to collaborate with others on or around the content
- Ability to edit content
- Ability to protect content outside of the repository
- Ability to manage content via policies

The focus on MCM has moved on from the consumer-centric era. The target for many providers of MCM is the business user. They have the clout and the budgets to make their own technology decisions and they have helped to fuel the growth of MCM. Moreover, the world is so connected that these empowered users don't have to make large capital investments; they can rent the storage and content management they need on a month-to-month basis.

File sharing and syncing systems are designed to simplify those activities for individual users. The aim is providing ready access to all of a user's content regardless of file type and independent of device. Mobile access is a key feature, as users typically have need to access information on their

work PC from a home computer, a laptop and one or more mobile devices including smartphones and tablets. However sharing and syncing is a feature of MCM, it is not defining it.

Content management systems have securing enterprise information and supporting production workflows as key design elements. Starting with a repository focus and enabling access to different users and applications, mobile is a rapidly growing client requirement. The maturation of the MCM market has led to more interoperability. Leading providers provide content connectors or APIs that allow for content federation across repositories.

Mobile device and app management vendors are approaching the content need with the mobile device and its management as the design point. Providing the ability to secure and protect whatever content is loaded to the mobile device, and restricting what can be done with it, are capabilities becoming prevalent in a growing number of tools. The ability to connect to enterprise content management (ECM) systems, utilize secure network connections for access to content, and to implement encryption at each layer are being incorporated.

Collaboration

At the heart of MCM is content in context. This context is crucial for collaborative interactions between colleagues and external parties. Many MCM providers lack more advanced collaboration features such as real-time, but we expect that to change, first via partnerships to integrate collaboration capabilities and possible technology acquisitions.

Mobile email remains one of the issues in mobile and many enterprise are shifting to a more secure email client due to issues with both access and, most importantly, security.

Document Editing and Annotation

Document editing offers, simple, fast and easy editing of documents. Editing, for documents, such as presentation slides, has gotten easier. For teams on the go, it provides a faster way to update and or collaborate on a document that is mission critical. Annotation may be one of the most-used features, since users now have a robust set of choices for mobile editors (e.g. Apple, Google, Microsoft) and many may opt for the native editor. On top of that, for certain classes of workers, they don't need the higher end editors, making an MCM editor a good value.

Securing Content in a Mobile World

Giving users access to apps and data through their mobile devices is great for productivity and improving enterprise agility. People increasingly are connecting with their email and essential business processes at any time and place. A critical issue for business is ensuring that sensitive business information is secured and protected. Only authorized users should be able to have access, and even their use may need to be governed by the time and place they are using it. Business data stored on mobile devices must be protected from theft or from access when a device is lost or otherwise compromised. For BYOD especially a means to secure and control business data on mobile devices is essential.

For MCM, a secure content cloud (public or private) has become a standard feature. Through a secured content cloud, the enterprise can control what content gets distributed to which users, and can ensure that only the most up-to-date content is in the hands of mobile users. Being able to have

time or location controls on the secure cloud can enable time-sensitive content to be automatically updated or wiped and prevent critical data such as financials from being accessed from outside business locations.

Document-Centric Security

A key concern for enterprise management of mobility and mobile access is applying appropriate protection of access to and use of corporate information. Embedding or wrapping documents themselves with controls and security policy can be used to protect sensitive files regardless of where they are downloaded. Providing extra levels of security protection for Documents on mobile devices is the new way forward. The ability to control each individual document for access on any type of device is becoming the de facto standard in MCM.

Providing preview capabilities (viewing without downloading), watermarking, and being able to also recall documents are emerging as standard features in the MCM Suite. Besides recalling, being able to wipe or selectively wipe content from compromised devices is also important. Finally, being able to manage encryption keys provides enterprises with a higher level of control. The features we see as important include:

- Remote and/or offline viewing
- Recall
- Watermarking
- Content wiping (selective or full)
- Content retention policies
- Audit trails of content sharing and access

Rights Management and Encryption

In an era of increased IP theft, rights management for content has surged back into the picture. MCM providers offer various levels of rights management. Many focus on encryption, but rights management combined with encryption is the longer-term strategic approach.

Data and documents can be encrypted, and access to any data can be restricted to apps selected by the enterprise. The risk of having sensitive information leaked, either innocently or with intent, is great on mobile devices. Enterprises need to define policies regarding information that can or cannot be sent via email, which content can be copied from the secure container to other locations, and which data can be blocked from the print and copy functions of mobile devices.

For enterprises, it is becoming common to have multiple approaches to provide access to and management of content for mobile devices and users. Regardless of the approach being used to connect mobile users and devices to enterprise content, appropriately securing that content is crucial.

Aragon Research Globe Overview

The Aragon Research Globe graphically represents our analysis of a specific market and its component vendors. We use a rigorous analysis of each vendor using three dimensions that enable comparative evaluation of the participants in a given market.

The Aragon Research Globe looks beyond size and market share, which often dominate this type of analysis, and instead uses those as comparative factors in evaluating providers' product-oriented capabilities. Positioning in the Aragon Research Globe will reflect how complete a provider's future strategy is, relative to their performance in fulfilling that strategy in the market.

A further differentiating factor is the global market reach of each vendor. This allows all vendors with similar strategy and performance to be compared regardless of their size and market share. It will improve recognition of providers with a comprehensive strategy and strong performance but limited or targeted global penetration, which will be compared more directly to others with similar perspectives.

Dimensions of Analysis

The following parameters are tracked in this analysis:

Strategy reflects the degree to which a vendor has the market understanding and strategic intent that are at the forefront of market direction. That includes providing the capabilities that customers want in the current offering and recognizing where the market is headed. The strategy evaluation includes:

- Product
- Product strategy
- Market understanding and how well product roadmaps reflect that understanding
- Marketing
- Management team, including time in the job and understanding of the market

Performance represents a vendor's effectiveness in executing its defined strategy. This includes selling and supporting the defined product offering or service. The performance evaluation includes:

- **Awareness:** Market awareness of the firm and its product.
- **Customer experience:** Feedback on the product, installs, upgrades and overall satisfaction.
- **Viability:** Financial viability of the provider as measured by financial statements.
- **Pricing and Packaging:** Is the offering priced and packaged competitively?
- **Product:** The mix of features tied to the frequency and quality of releases and updates.
- **R&D:** Investment in research and development as evidenced by overall architecture.

Reach is a measure of the global capability that a vendor can deliver. Reach can have one of three values: *national*, *international* or *global*. Being able to offer products and services in one of the following three regions is the third dimension of the Globe analysis:

- **Americas** (North America and Latin America)
- **EMEA** (Europe, Middle East and Africa)
- **APAC** (Asia Pacific: including but not limited to Australia, China, India, Japan, Korea, Russia, Singapore, etc.)

The market reach evaluation includes:

- Sales and support offices worldwide
- Time zone and location of support centers
- Support for languages
- References in respective hemispheres
- Data center locations

The Four Corners of the Globe

The Aragon Research Globe is segmented into four sectors, representing high and low on both the strategy and performance dimensions. When the analysis is complete, each vendor will be in one of four groups: *leaders*, *contenders*, *innovators* or *specialists*. We define these as follows:

- **Leaders** have comprehensive strategies that align with industry direction and market demand, and perform effectively against those strategies.
- **Contenders** have strong performance, but with more limited or less complete strategies. Their performance positions them well to challenge for leadership by expanding their strategic focus.
- **Innovators** have strong strategic understanding and objectives, but have yet to perform effectively across all elements of their strategy.
- **Specialists** fulfill their strategy well, but have a narrower or more targeted emphasis with regard to overall industry and user expectations. Specialists may excel in a certain market or vertical application.

Inclusion Criteria

The inclusion criteria for this Aragon Research Globe are:

- *Revenue*: A minimum of \$4 million in primary revenue for mobile content management software, or \$8 million in a related market (EMM, ECM, portal or collaboration).
- *Shipping product*: Product must be announced and available.
- *Customer references*: Vendor must produce a minimum of three customer references in each region that the vendor participates in.

The Aragon Research Globe™ for Mobile Content Management, 2014
(As of 10/15/2014)

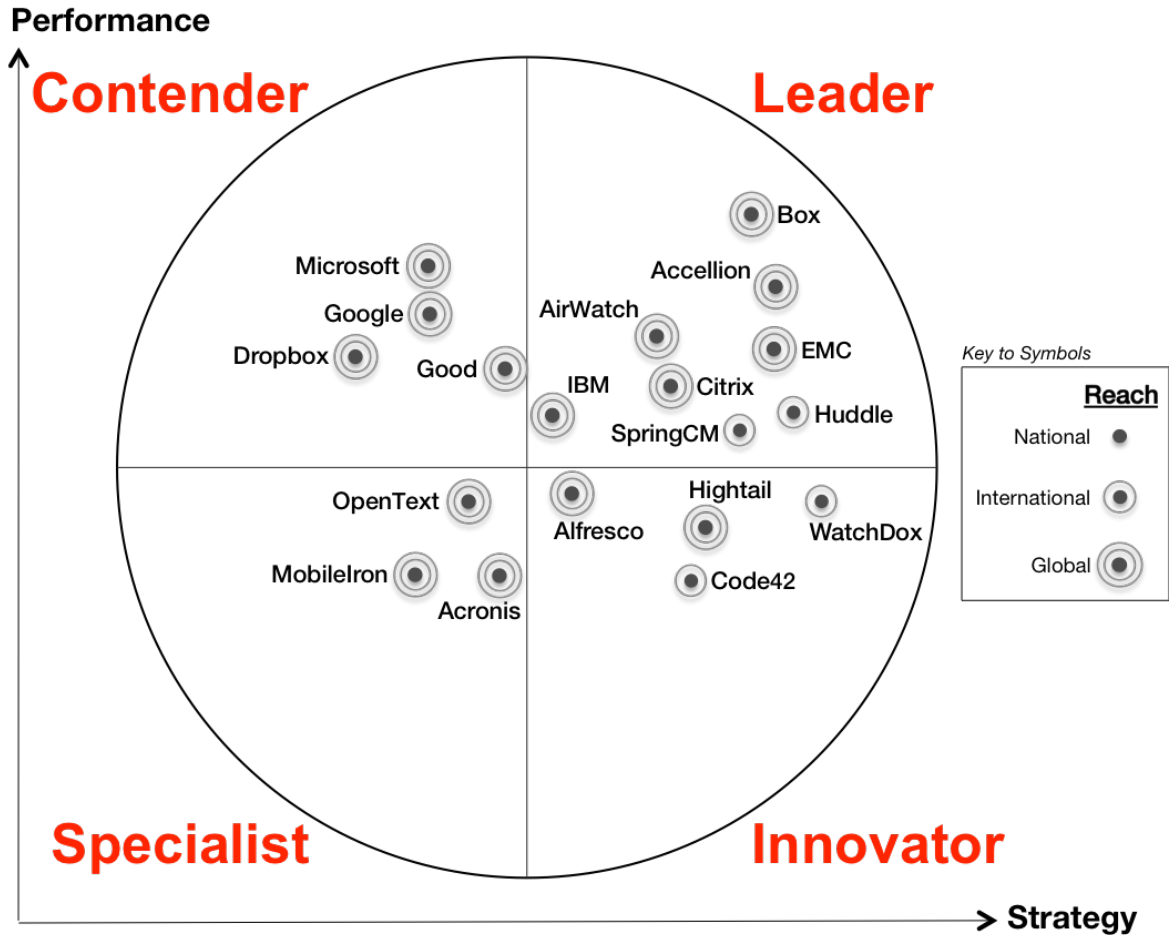


Figure 1: The Aragon Research Globe™ for Mobile Content Management, 2014

Leaders

Accellion

Accellion has been hard at work enhancing its kiteworks MCM offering with new features, such as digital rights managements. Accellion was an early pioneer in providing enterprise grade security and continues to be an innovator in MCM security. Additionally, offering cloud, on-premises and hybrid cloud deployment options has provided strong options to enterprises.

Accellion has also been driving sales and has won many high-profile accounts. This is due in part to its early focus on MCM and its flexible deployment options. Accellion also supports content federation, and provides content connectors to Box, Dropbox, EMC Documentum, Google Drive, Microsoft SharePoint and One Drive, Windows File Share, and OpenText.

Strengths

- Deployment options
- Rights management
- Content and access security

Challenges

- Partner ecosystem

AirWatch

A leader in enterprise mobile management, AirWatch was one of the earliest EMM providers to invest in mobile content management with its Secure Content Locker. By combining MCM with an EMM suite, AirWatch can offer fine-grained content management. Policies can be set relating to devices and the content residing in them.

Given the bundling with its EMM Suite, AirWatch has grown its installed base for Secure Content Locker at a record pace. Some of this can be attributed to its focus on vertical solutions in industries, such as aerospace, pharmaceutical and sports. Content Locker can store content in the AirWatch Cloud or users can store content in other repositories such as Microsoft SharePoint. AirWatch uses the Content Management Interoperability Standard (CMIS) for content federation, which is a standard federation method for managing content across repositories.

Strengths

- Policy management
- Vertical solutions
- Document security
- Pricing

Challenges

- Awareness outside the EMM market

Box

Box, which filed for its initial public offering in 2014, has set its sights on the enterprise and is not looking back. Box Enterprise has become an alternative to Microsoft SharePoint, partly due to the broad ecosystem of partner apps that work with the Box platform.

Box continues to innovate its enterprise offering, which offers a growing set of features, including enhanced workflow, rights management and APIs. Box has spent heavily on marketing and sales to help to drive brand recognition and significant deployments in large and small accounts.

Strengths

- Brand recognition
- Global presence
- Partner ecosystem

Challenges

- Storage options outside of Box

Citrix

Citrix is driving its MCM story with its ShareFile offering that is sold both standalone and as part of the XenMobile EMM, Workspace Suite and Citrix collaboration offerings. ShareFile enables users to access and share files across devices for collaboration with internal and external parties. With ShareFile, users can store data in the most optimal locations – in the cloud, on premises or a hybrid of both – and connect to existing data sources such as network shares, SharePoint or any other ECM system.

ShareFile features solid ease of use on desktop and mobile devices, such as iOS and Android. ShareFile includes built-in content editing for iOS and Android. It also integrates with other ECM systems. ShareFile leverages strategic security capabilities from XenMobile, and given the different ways that ShareFile is sold, awareness is on the rise.

Strengths

- Ease of use
- Offered standalone or as a product bundle
- Android mobile app

Challenges

- Pricing
- Awareness outside of Citrix accounts

EMC Syncplicity

EMC, a leader in ECM, bought Syncplicity in 2012 and has wasted no time getting the word out to its EMC software base. Syncplicity offers strong tablet and smartphone based user interfaces, along with simple and intuitive navigation.

Users who deal with a large number of documents will find navigation and versioning on tablets and smartphones as easy as a browser. Syncplicity also offers the ability to edit Microsoft documents, and also leverages storage options offered by its parent EMC, as well as standards-compliant (NFS v3) third-party public or private storage. Syncplicity does offer a connector to EMC Documentum repositories, but EMC customers may question paying for both even though these are complementary offerings.

Strengths

- User interface
- Document security, including rights management
- Policy management options

Challenges

- Perceived overlap with EMC Documentum

Huddle

Huddle, which has a strong installed base in Europe, was an early pioneer in the shift to MCM, having developed the concept of predictive content before many others. Huddle has proven itself as an alternative to Microsoft SharePoint in both government and commercial enterprises.

Huddle offers a strong set of collaborative features, which allow users to work and collaborate on tablets. Huddle has also set the standard around predictive content, since it can recognize usage patterns and have the content that the user will most likely need synced and available on the tablet. We have seen large enterprises deploy Huddle in SharePoint accounts to enable work on mobile devices, such as iPads.

Strengths

- Ability to collaborate with people and content
- Predictive content
- Security
- Ease of use

Challenges

- Market awareness outside of Europe

IBM

IBM is one of the titans in ECM. Its MCM functionality is part of the MaaS360 EMM product line and it primarily offers MCM capabilities within its overall EMM suite. MaaS360 offers strong document-level security, due to its secure container and policy management features.

IBM MaaS360 offers both cloud and on-premises options, which has proved to be popular in certain industries. It offers secure email and it can also sandbox content within the mobile app. MaaS360 can also integrate with other repositories, such as Box, Google Drive, and Microsoft.

Strengths

- Fine-grained content control
- Integration with EMM
- Support for on-premises and cloud

Challenges

- Overlap with IBM ECM offerings

SpringCM

SpringCM, which is based in Chicago, offers a full cloud-based ECM platform, with a number of robust MCM features. This has allowed SpringCM to focus on fast-growth business applications, such as contract management or sales enablement, where document automation is important. SpringCM also has leveraged CRM ecosystems, such as its integration with Salesforce, where the demand for content integration is growing.

SpringCM offers a robust set of capabilities that enable content to be accessed and acted upon from multiple devices. Its new dynamic and predictive capabilities in Salesforce enable sales executives to have the right content at their fingertips at the right point in an opportunity.

Strengths

- Breadth of functionality
- Salesforce integration
- Predictive content

Challenges

- Awareness outside of North America

Contenders

Dropbox

Dropbox started life as a consumer-focused product and for most of its demand today, we still see consumers as its primary product focus. Its new focus on a business offering is late, but it's making a strong push for enterprises to adopt.

Dropbox still faces the challenge of being blocked in many organizations, partly due to security concerns that still exist. That said, Dropbox has been making a big push for the enterprise, and has the financial wherewithal to do so. However, security remains a concern for enterprises, given Dropbox's historical focus on the consumer space.

Strengths

- Brand awareness
- Ease of use
- Support for multiple file types

Challenges

- Windows and Mac clients bypass operating system protocols for security and file scanning

Good Technology

Good was the first to offer secure mobile email on multiple platforms, which has become a standard in many enterprises. As part of its full EMM suite, Good Share provides the ability to manage and protect content inside of apps, as well as content stored in other repositories, such as Microsoft SharePoint.

Good has done a complete makeover of its suite and has enabled advanced security for content via its Secure App capabilities, which allows data and content to be shared securely within the framework of the app that is used to access the content. Additionally, since email today is still the number one content management application, Good's Secure Mobile Email is one of the standards in many enterprises. Good has extensive security built into its suite, including robust SSL certificates.

Strengths

- Secure mobile email, SharePoint and network file access, and intranet browsing
- Secure third-party ISV storage solutions including Box, Accellion and others
- App-level content controls with enterprise-grade security

Challenges

- Does not provide its own hosted storage solution

Google

Google helped to pioneer the shift to content in the cloud. Google Drive, which is part of Google Apps for Work, is offered as both a bundled and a standalone offering, in both free and business account offerings. Google Drive also does a solid job of storing and also playing video files, which we expect others to emulate.

Google Drive functionality has been improving on mobile devices, but the user interface could be smoother. Google has been leading the charge in pricing with the most aggressive prices in the industry. Additionally, Google has been FISMA certified for years, giving it a leg up when it comes to cloud security.

Strengths

- Brand recognition
- Pricing
- FISMA certification and encryption
- Unlimited storage per user

Challenges

- Mobile app ease of use

Microsoft

Microsoft has had Office 365 for over four years and it is now beginning to focus on MCM via a combination of OneDrive for Business and SharePoint Online, both part of the Office 365 suite. Until recently, users had to count on third-party mobile apps to access their SharePoint repositories.

OneDrive for Business looks very similar to SharePoint Online. The thing that Microsoft has going for it is the total push it has for Office 365 and the marketing of the suite. While SharePoint Online and OneDrive for Business are bundled with Office 365, enterprises have been opting for other MCM choices, while often maintaining their on-premises SharePoint investments.

Strengths

- Brand recognition
- FISMA certification for Office 365
- Storage options up to 1 terabyte per user

Challenges

- OneDrive for Business mobile app functionality
- Adoption of OneDrive for Business

Innovators

Alfresco

Alfresco, under the leadership of CEO Doug Dennerline, recently secured \$45 million in funding. It has been expanding beyond being just an open-source ECM provider to one that is meeting the needs of enterprises via a cost-effective set of solutions, including but not limited to MCM.

Alfresco is focused on enabling a new generation of content-centric business apps, which will include mobile enablement. Alfresco has also been migrating legacy ECM installed-base offerings to its modern ECM platform.

Strengths

- ECM capabilities
- Pricing
- On-premises or cloud offerings

Challenges

- Focus is on ECM replacements

Code42

Code42, based in Minneapolis, offers its flagship CrashPlan endpoint backup and recovery service. It has been growing its base for MCM with its SharePlan for Enterprise offering that includes strong security options, including the option to control encryption keys. Code42 represents a new trend where enterprises that are looking for overall endpoint backup and recovery may also buy MCM capabilities as well.

Code42 isn't really new in MCM, since it has been doing content management for all files on the device with its CrashPlan backup offering for over five years. SharePlan is ideal for enterprises who have stringent security requirements and don't want to use a public cloud offering.

Strengths

- Cloud endpoint backup
- Security
- Audit controls
- Private key options

Challenges

- Market awareness
- SharePlan public cloud requires an onsite master

Hightail

Hightail started life as YouSendIt, but with a new name and a new management team, it has shifted to an enterprise focus. Some large firms use Hightail and it has focused on business users as key buyers.

While Hightail has historically been known for its strength in sharing large files, it now also offers strong audit controls via its policy engine. Ease of use on mobile devices is compelling. Hightail offers integrations with SharePoint, Salesforce, NetSuite, Outlook and a variety of ECM products.

Strengths

- Ease of use
- Pricing
- Mobile apps

Challenges

- Brand recognition

WatchDox

WatchDox, based in Palo Alto, does heavy lifting when it comes to document security. WatchDox has been deployed in some of the more sensitive document application areas (private equity firms and movie studios), where IP theft is a constant worry. It offers the ability to manage content in the cloud as well as on-premises, which is an important buying criterion for security-conscious buyers.

WatchDox has made document level security a feature that individual users can invoke via its intuitive user interface. WatchDox also offers its own digital rights management and can integrate with existing Microsoft DRM protocols, something others may want to emulate.

Strengths

- Document security
- DRM support
- Ease of use

Challenges

- Market awareness outside of North America

Specialists

Acronis

Acronis is known for its backup and recovery capabilities for Macs and PCs. Its MCM offering, Acronis Access, is a mobile content management and enterprise file sharing and syncing solution. Access is targeted at the enterprise with a strong emphasis on security, compliance, policies and management. Acronis is focused on regulated industries, such as financial services, pharma, healthcare, and government.

Acronis provides strong encryption as well as policy management, making it good for sensitive content. Acronis partners with MobileIron and Good Technology to leverage their secure ecosystems and with Thursby to provide two-factor authentication with smart cards (CAC/PIV). Acronis does offer content federation capabilities with file servers, Microsoft SharePoint and Office 365.

Strengths

- FIPs certified
- Encryption
- Policy management

Challenges

- Private cloud only
- Awareness of its MCM offering

MobileIron

MobileIron, which went public in 2014, is known more for its leading EMM platform, where it focuses on MDM and MAM. It also offers Docs@Work as its MCM platform, which was introduced in 2012.

Docs@Work offers the ability to access content stored in Microsoft SharePoint and it allows for solid security controls. Demand for Docs@Work has not been as strong as demand for the overall EMM offering. MobileIron also partners with a number of MCM providers, including Accellion, Acronis, Box and WatchDox.

Strengths

- Document-level security
- Bundled with EMM offering

Challenges

- Awareness of Docs@Work
- Overall focus on MCM

OpenText

OpenText is one of the historic leaders in ECM. Its MCM offering, Tempo Box, has been on the market for a while and is an attractive choice for existing OpenText ECM users.

Featuring strong audit controls, Tempo Box comes in a variety of offerings, both standalone and also a version that is integrated with OpenText's flagship ECM platform, Content Server 10. While OpenText has a large ECM installed base, we have not seen a significant amount of demand for Tempo Box.

Strengths

- ECM platform
- OpenText brand
- Audit controls

Challenges

- Awareness of Tempo Box outside the OpenText customer base

Aragon Advisory

- Enterprises need to look at mobile content management carefully and realize that they may have more than one supplier, given the needs and demands of business users.
- Enterprises should have a minimum set of security criteria that any provider must meet.
- Enterprises should identify and classify critical content to ensure that it will be tracked by the MCM platform.
- Enterprises should realize that MCM will go through a consolidation phase over the next 36 months.

Bottom Line

Mobile content management represents the new way forward to manage content in and outside of content repositories. Given the constant threats to the enterprises and the fact that content is constantly on the move, enterprises should plan for and deploy an MCM solution to ensure that their content will be used and shared in a secure manner.