Ovum Decision Matrix: Selecting an Enterprise Content Management Solution for the Cloud, 2017–18
Summary

Catalyst

Content is at the center of digital transformation, and this is driving an evolution in enterprise content management (ECM) as vendors adapt their products to help enterprises better manage their content and use it to gain valuable insights. Enterprises need to change the way in which they procure and consume ECM to take advantage of this evolution. In the last ECM, Ovum Decision Matrix, Selecting an Enterprise Content Management Solution, 2015–16, we spoke about how the large ECM suites were beginning to be broken down into solutions that target specific areas of functionality. This solutions-based approach to ECM is continuing, and an important element of this is the cloud, which is allowing ECM to become a services-oriented technology where enterprises can use cloud-based content services to add extra capabilities to existing ECM investments. Most ECM vendors now offer complete cloud-based ECM solutions, enabling enterprises to move the management of content to the cloud. Enterprises should consider the cloud as an alternative to on-premises ECM. Even if there are no immediate plans to migrate, the next iteration of ECM should result in a platform that can be easily migrated to the cloud.

Ovum view

An important element of digital transformation is managing the lifecycle of content. Enterprises should at the very least consider whether implementing ECM in the cloud is a viable option. Cloud is an important element of digital transformation, and it addresses two major requirements of enterprises: the need for cost-effective ECM solutions, and ensuring content is secure. ECM platforms have become complex and expensive to implement. Eliminating the need for hardware and infrastructure, ECM in the cloud removes much of the complexity of the implementation process as well as reducing the cost. Deploying ECM as a service also makes it easier to deploy only the capabilities required, and not features that will never be used, which often happens with on-premises systems. Security concerns within enterprises have acted as a prohibitor to cloud, and ECM vendors still have a way to go to convince all enterprises that the cloud is secure. Large ECM vendors usually provide their own cloud data centers, while smaller vendors use third-party cloud providers such as Amazon, Google, or Microsoft. All cloud service providers take security extremely seriously and take measures to ensure that their cloud environments are more secure than on-premises data centers. Measures to secure data centers and the data stored within them applied at the physical, operational, and storage levels include preventing unauthorized access, screening potential employees, DoS protection, and encrypting all stored content.

For this Ovum Decision Matrix, ECM is defined as document management and collaboration, records management, capture and scanning, business process management (BPM), and search supported by information rights management, and content analytics. Most of these technologies are included in the platforms, although capture and scanning is sometimes treated as an add-on. Some ECM vendors are starting to provide microservices that sit on top of the platform, while others have this on their roadmaps. Microservices targeted at addressing both vertical industries and horizontal tasks are designed to be deployed alongside cloud or on-premises ECM platforms. The main advantage of this approach is that microservices can be used with third-party ECM platform products, which means that existing investments do not have to be replaced. An important element that should be taken into
consideration when selecting an ECM system is the ability to integrate with third-party applications regardless of whether they are on-premises or cloud-based. Some vendors include native connectors to widely deployed enterprise resource planning (ERP) and customer relationship management (CRM) systems, and most vendors provide application programming interfaces (APIs) and support for content management interoperability services (CMIS) to allow integrations with third-party ECM systems and enable other applications to be easily built.

Enterprises need to manage content efficiently. They need the ability to collaborate on documents both internally and with third parties. This has resulted in many ECM vendors incorporating enterprise file sync and share (EFSS) capabilities into their platforms. At the same time, many EFSS vendors are providing lightweight document management facilities, and some are beginning to refer to themselves as ECM vendors. We are beginning to see a convergence in technology, although the ECM vendors are too far ahead in terms of capabilities for this convergence to be reminiscent of the convergence seen at the beginning of the century when document management vendors developed or acquired web content management (WCM) capabilities and WCM vendors gained document management facilities to create ECM vendors. Partnerships between ECM and EFSS vendors could result in acquisitions as ECM vendors look to strengthen their capabilities in this area.

Microsoft SharePoint continues to dominate the market, although not all customers that have deployed SharePoint will have done so for its ECM capabilities. We are continuing to see consolidation in the ECM space. The acquisition by OpenText of Dell EMC Enterprise Content Division (ECD), which includes Documentum, is now complete, resulting in OpenText having two entries in this Ovum Decision Matrix. Kofax, which includes the Perceptive ECM suite, has been spun off from Lexmark and is now a private company. At the time of writing, it has been announced that Hyland Software has acquired the Perceptive portfolio.

<table>
<thead>
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<th>Table 1: Advantages of the cloud</th>
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<tr>
<td>No large capital investment on hardware</td>
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<td>More secure than on-premises software</td>
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<tr>
<td>More cost-effective than on-premises software</td>
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<tr>
<td>Backups and disaster recovery provision provided</td>
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<tr>
<td>Quicker implementation</td>
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<tr>
<td>No updates to install</td>
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<tr>
<td>Automatically scales up and down as requirements change</td>
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<tr>
<td>Easier to access content from any location</td>
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Source: Ovum

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Key findings

- Enterprises should consider the cloud capabilities of ECM vendors when looking to implement their next iteration of ECM. Implemented appropriately, cloud is more secure than on-premises and is more cost-effective.
- ECM vendors are closely matched in terms of core features and functions. For differentiation look at the cloud capabilities of ECM vendors, including native integrations provided with both third-party on-premises and cloud-based applications.
- Integration with ERP, CRM, HR, and third-party ECM repositories is an important element of cloud-based ECM. Ensure that native connectors are provided for common applications and that there are APIs and support for CMIS available, as well as mechanisms for easily building custom integrations.
- ECM vendors are adopting microservices as a way of delivering granular, task-based applications that provide small pieces of functionality. When procuring an ECM system, look for vendors that are creating large numbers of microservices.
- The ECM vendor landscape is continuing to consolidate as shown by the acquisition of Dell EMC’s Enterprise Content Division by OpenText and the announcement that Hyland was acquiring the Perceptive portfolio from Kofax.
- Microsoft SharePoint, the two OpenText products (Content Suite and Documentum), IBM ECM Cloud Portfolio, OnBase by Hyland, and Oracle WebCenter Content are all in the leader category.
- Kofax ECM portfolio and the two open source products, Alfresco Content Services and Nuxeo Platform are challengers in this Ovum Decision Matrix.
- There are no market followers in this Ovum Decision Matrix. ECM is mature, which means that all vendors score highly in terms of technology. However, products from the smaller vendors have generally been available as cloud solutions for longer than those from the large vendors.

Vendor solution selection

Inclusion criteria

Given the broad definitions of ECM and the consequent very wide range of products and vendors that are positioned in this technology area, identifying those which would be appropriate for the largest number of Ovum’s enterprise subscribers resulted in a very tight set of criteria.

- The vendors had to offer a "platform" for ECM, where all functionality could be accessed and managed though a single interface.
- Each ECM platform had to be able to be deployed in the cloud.
- The products had to have a significant level of recognition among enterprises, cover a range of verticals, and have a presence in multiple geographies.
- The products needed to include a number of technologies in their portfolios, comprising document management and collaboration, records management, workflow/BPM, capture and scanning capabilities, and search.
Exclusion criteria

Vendors and products excluded from analysis in this report include:

- those providing point solutions such as enterprise file sync and share or records management.
- offerings with a significant portion of functionality that is delivered through third-party products.
- vendors whose presence is limited to a restricted geographical area.

Methodology

Technology/service assessment

In this technology/service assessment dimension, Ovum analysts have developed a series of features and functionality that would provide differentiation between the leading solutions in the marketplace. The criteria groups identified for ECM in the cloud are as follows:

- **Document management and collaboration**: The ability to create and edit content in a collaborative environment, where collaboration capabilities include file sync and share.
- **Information rights management**: Protecting individual items of content by controlling what actions can be taken on them.
- **Records management**: The ability to control content from its creation to disposition, with processes to ensure that content can be retained in an immutable form when needed.
- **Content/text analytics**: Tools that analyze how content is being used and who is using it, which is useful in assessing whether content has value to the organization.
- **Business process management**: The ability to create content-centric processes that are often triggered by the receipt of an item of content.
- **Capture and scanning**: The ability to import information from physical media in a form that can be managed by the rest of the products in the platform.
- **Search**: The ability to locate content across the enterprise on local drives, desktops, and a wide range of repositories.

Execution

In this dimension, Ovum analysts review the capability of the solution around the following key areas:

- **Maturity**: The stage that the product/service is currently at in the maturity lifecycle is assessed here, relating to the maturity of the overall technology/service area.
- **Interoperability**: In this element we assess how easily the solution/service can be integrated into the organization's operations, relative to the demand for integration for the project.
- **Deployment**: Referring to a combination of assessed criteria and points of information, Ovum analysts provide detail on various deployment issues, including time, industries, services, and support.
- **Scalability**: Points of information are provided to show the scalability of the solution across different scenarios.
- **Innovation**: Innovation can be a key differentiator in the value that an enterprise achieves from a software or services implementation, and this is assessed in this criteria.
Integration: The integrations that the products have with key ERP, CRM, and third-party enterprise file sync and share products.

Market impact

The global market impact of a solution is assessed in this dimension. Market Impact is measured across five categories, each of which has a maximum score of 10.

- Revenues: Each solution's global ECM revenues are calculated as a percentage of the market leader's. This percentage is then multiplied by a market maturity value and rounded to the nearest integer. Overall global revenue carries the highest weighting in the market impact dimension.
- Revenue growth: Each solution's revenue growth estimate for the next 12 months is calculated as a percentage of the growth rate of the fastest-growing solution in the market. The percentage is then multiplied by 10 and rounded to the nearest integer.
- Geographical penetration: Where the information is provided, Ovum is able to establish the geographical reach of the product, both in terms of regional brand recognition and physical presence. Sales operations and provision of local support are also given merit.
- Data center presence: Ovum determines each vendor's data center presence through the total number of data centers they own, or third-party data centers in which they host their ECM platforms.
- Data center penetration: Ovum determines each vendor’s data center presence in three regions: the Americas, Europe Middle East and Africa, and Asia-Pacific, either through vendor-owned data centers, or hosting their software in a third-party data center.

Ovum ratings

- **Market leader**: This category represents the leading solutions that we believe are worthy of a place on most technology selection shortlists. The vendor has established a commanding market position with a product that is widely accepted as best of breed.
- **Market challenger**: The solutions in this category have a good market positioning and the vendor is selling and marketing the products well. The products offer competitive functionality and a good price-performance proposition, and should be considered as part of the technology selection.
- **Market followers**: Solutions in this category are typically aimed at meeting the requirements of a particular kind of customer. As a tier-1 offering, they should be explored as part of the technology selection.

Ovum Decision Matrix Interactive

To access the ECM in the Cloud Ovum Decision Matrix Interactive, an online interactive tool providing you with the technology features that Ovum believes are crucial differentiators for leading solutions in this area, please see the Ovum Decision Matrix Interactive tool on the Ovum Knowledge Center.
Market and solution analysis

Ovum Decision Matrix: ECM in the Cloud, 2017–18

Although the ECM market is very mature, ECM in the cloud is still relatively new, although some vendors have been offering cloud-based ECM systems for many years, with some of the smaller vendors in the cloud-ECM space being the longest established. The key to successful cloud applications is how the products have been architected for the cloud. Vendors that simply run their on-premises software in the cloud are unlikely to offer the value enterprises expect from cloud services. Integration is an important aspect of cloud-based ECM and it is therefore imperative that vendors offer out-of-the-box integrations with back-end systems including ERP, CRM, and HR, as well as third-party ECM repositories. Integrations should work with third-party, cloud-based applications as well as on-premises systems. While most ECM vendors host their own cloud solutions, smaller vendors might use a third-party cloud provider, and the larger vendors use their own data center facilities to operate their own clouds. Issues such as data sovereignty are usually catered for, with most vendors either providing or having access to cloud facilities in multiple geographical regions.

Figure 1: Ovum Decision Matrix: ECM in the Cloud, 2017–18

Source: Ovum
Figure 2: Expanded view of Ovum Decision Matrix: ECM in the Cloud, 2017–18

Source: Ovum

Table 1: Ovum Decision Matrix: ECM in the Cloud, 2017–18

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<thead>
<tr>
<th>Market leaders</th>
<th>Market challengers</th>
<th>Market followers</th>
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<td>OnBase by Hyland</td>
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<tr>
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<td>Oracle</td>
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Source: Ovum

Market leaders: Hyland, IBM, Microsoft, OpenText, and Oracle

Hyland, IBM, Microsoft, OpenText (Documentum and Content Suite), and Oracle fall into the market leader category for this Ovum Decision Matrix.

OnBase is an enterprise information platform with more than 300 modules that share a single code base. Components are available to organizations on the application of licenses. OnBase is available in the cloud as well as on-premises. Hyland offers a mature hosted solution and it is now 14 years...
since OnBase was first made available in the cloud. Hyland has more than 700 customers who have deployed OnBase in the cloud. This might sound like a low number given the number of years that the product has been available through this deployment model, but take-up of the cloud has been slow in ECM, and many vendors would be envious of this number. At the time of writing, it was announced that Hyland had entered an agreement to acquire Kofax’s Perceptive portfolio. The sale has now completed, but it is too early to say what impact this will have on the OnBase and Perceptive portfolios.

IBM is a leading ECM vendor with an extensive portfolio of tightly integrated products, comprising Content Foundation on Cloud, Content Navigator, Case Manager on Cloud, Datacap on Cloud, Watson Explorer Enterprise Edition, and Enterprise Records on Cloud. It offers a unified experience across on-premises and cloud deployments, which enables it to offer flexible deployment options, where organizations can run a combination of on-premises and cloud deployments. The portfolio is arranged across five functional areas: capture, case management, social and collaboration, analysis, and compliance and governance.

Microsoft SharePoint and Office 365 have extremely large customer bases that are the envy of other ECM vendors. SharePoint has extensive capabilities that provide the level of content security that enterprises require, including records management and retention; information rights management, where Microsoft has one of the leading solutions; data loss prevention features; auditing; and conditional access policies. Microsoft has a major advantage over its competitors in that it has a huge ecosystem of partners that provide complementary solutions that extend the capabilities of SharePoint.

OpenText is the only vendor to have two products in this Ovum Decision Matrix. Documentum is a recent acquisition for OpenText from Dell Technologies that completed in January 2017. The benefits of the acquisition are already being seen through the rapid development of LEAP, the next-generation platform-as-a-service, which incorporates content-centric applications that address very specific use cases. Documentum development had suffered for a couple of years once the acquisition of EMC by Dell was announced, and its sale became inevitable. Under the ownership of OpenText, the future looks much brighter, and the vendor has differentiated the use cases for Documentum and OpenText Content Suite. By offering a choice of ECM platform, and building services on top of these platforms, functionality and applications can be shared by Documentum and Content Suite, which means that Documentum customers will be able to take advantage of features such as experience management. By the same token, Content Suite customers can access LEAP apps, most of which came as part of the Documentum acquisition. OpenText is differentiating the use case scenarios for each of its ECM platforms. Built on Content Suite, OpenText provides Extended ECM solutions that integrate with multiple business applications in the ERP, CRM, and HR space, including SAP, Salesforce, Oracle, and Microsoft SharePoint.

Oracle has an advantage over some of its smaller competitors because it is a multiple product vendor that has capabilities in technologies such as ERP and CRM that have been adopted in the cloud much more quickly and extensively than ECM. Its ECM portfolio includes Content and Experience Cloud, WebCenter Content, WebCenter Imaging, WebCenter Enterprise Capture, WebCenter Forms Recognition, WebCenter Portal, and WebCenter Portal Cloud Service (including WebCenter Content). These are a set of tightly integrated products that together manage the lifecycle of content and provide extensive capabilities. Functionality includes document management, content collaboration, desktop productivity integration, document workflow, digital asset management, CDN-enabled content...
delivery (cloud only), enhanced enterprise applications, hybrid integrations, records management, and content analytics. Its portfolio can be deployed on-premises, in the cloud, or in hybrid scenarios.

**Market challengers: Alfresco, Kofax, and Nuxeo**

Alfresco, Kofax, and Nuxeo are challengers in this Ovum Decision Matrix.

Alfresco is an open source vendor that has enjoyed success in financial services (banking, insurance), government, healthcare, and manufacturing. It is also acquiring new customers in the private sector as the ECM market continues to consolidate and organizations look to move away from content platforms that have changed hands and face a period of uncertainty. Alfresco is a well-established vendor with a full-featured ECM portfolio. It may not have as many features as some of the larger platforms, nor provide the capabilities offered in some of the new areas added to large ECM portfolios, but for many organizations its capabilities are sufficient, and it boasts several large enterprises among its customers. Flexible deployment options, including on-premises and a range of cloud choices, will suit the requirements of virtually any organization, and the ability to access content stored in the cloud or on-premises, regardless of the deployment type, allows organizations to adopt hybrid models easily.

Kofax has undergone a great deal of change over the past few years. Originally a capture and scanning vendor, it expanded into business process management (BPM), with the acquisition of Singularity, to help it provide content-centric processes. In 2015, it was acquired by Lexmark, which also acquired ECM vendors Perceptive Software and Saperion. All of these vendors' products have been integrated to create an extensive ECM suite. In 2016, Lexmark’s Enterprise Software group was separated from Lexmark and rebranded as Kofax. This has created a new player in the ECM space (even though its ECM portfolio is based largely on the Perceptive products) and is an indication that the ECM market is still consolidating, a process that has been under way for several years. The Kofax ECM portfolio offers an impressive range of capabilities, including multichannel capture, extraction and verification, case management, workflow and process automation, robotic process automation, customer communication management, authentication and facial recognition, and e-signature and signature verification.

Nuxeo is a well-established open source ECM vendor that completely rearchitected its product a few years ago. It also moved its headquarters from France to the US, which has paid off. The company has been able to raise its profile and gain a number of enterprise customers as a result, growing its average deal size. When it rearchitected its product, Nuxeo recognized the importance of the cloud, and unlike some of its competitors, which simply ported their existing architecture to the cloud, it took this opportunity to make its platform cloud-ready. This has enabled it to win deals against much larger competitors, including other open source vendors and large, traditional ECM players. Nuxeo can also be implemented on-premises or in a hybrid scenario, which will appeal to organizations that are not ready to move all their content to the cloud.

**Market followers**

ECM is a very mature technology, and all of the vendors featured are well-established with a wide range of features and functions built up over many years. There are therefore no vendors that fit into the market follower category in this Ovum Decision Matrix.
Market leaders

Market leaders: Technology

IBM, Microsoft, and OpenText (Content Suite) are the market leaders in document management and collaboration, but this is one of the areas where there is least difference between the highest and the lowest scoring vendors, demonstrating that there is not much differentiation between vendors in terms of capabilities in this area. The highest scoring vendors in information rights management are Microsoft and OpenText (both products). This is a technology where only a few vendors have their own capabilities, with most vendors relying on third-party products. Microsoft, OpenText (Content Suite), and Oracle are the leading vendors in records management. Lack of support for certification standards is an area that lets some vendors down. In content analytics, IBM, Microsoft, and OpenText (Content Suite) have the highest scores. These are all vendors that have extensive analytics capabilities. It is in the BPM area that there is a difference between vendors in terms of the highest and lowest scores, but Microsoft, OpenText (Content Suite), and Oracle all score maximum points. In capture and scanning, Hyland, IBM, OpenText (both products), and Oracle score maximum points. In search, IBM, Microsoft, Nuxeo, and Oracle are the leading vendors. For cloud capabilities, IBM, Microsoft, and Nuxeo are the leaders. IBM and Microsoft maintain their own clouds, but Nuxeo uses a third-party cloud on which it hosts its portfolio. Finally, in architecture and administration, IBM, Kofax, and Microsoft come out on top.
Market leaders: Execution

ECM in the cloud is much less mature than ECM in general, and this is reflected in the scores in the maturity area, which are generally lower than for other areas. Hyland, Nuxeo, and OpenText (ECD) are the highest scoring vendors. In terms of interoperability, Hyland IBM, Microsoft, Nuxeo, and OpenText (Content Suite) score maximum points, as this is an important area for cloud solutions. In terms of deployment Hyland, Microsoft, and Oracle are the highest scoring vendors. This is an area that is important to enterprises because ECM can be complex and difficult to implement, and vendors need to simplify the process. All ECM platforms are extremely scalable and Alfresco, Microsoft, OpenText (both products), and Oracle all score maximum points. In innovation, Alfresco, IBM, Microsoft, Nuxeo, OpenText (Content Suite), and Oracle have maximum scores. For integration IBM, Microsoft, and OpenText (Documentum) have the highest scores. All vendors provide APIs and support CMIS to help customers to create custom integrations, and many provide native connectors to common applications.
In terms of market revenue, IBM, Microsoft, and OpenText are the largest vendors. This is the area where there is greatest difference in range between the largest and smallest vendors. Hyland, IBM, and Microsoft score highest in terms of revenue growth. Although the smaller vendors, particularly Alfresco and Nuxeo have the greatest growth rate in terms of percentage, because they have much smaller revenues in monetary value, their growth is lower than the large vendors. For geographical penetration, Microsoft, OpenText, and Oracle have the highest scores. In terms of data center presence, IBM, Microsoft, and OpenText score highest. These are all vendors that provide their own data centers. Microsoft, OpenText, and Oracle score best in terms of data center penetration, which covers the location of data centers.
Vendor analysis

Alfresco Content Services v5.2 (Ovum recommendation: Challenger)

**Figure 6: Alfresco Content Services radar diagrams**

Source: Ovum

**Ovum SWOT assessment**

**Strengths**

Alfresco is open source, adheres to open standards, and provides a choice of deployment

Open source Alfresco has been designed for ease of use. Unlike many ECM systems, its browser-based user interface (UI) and server-side components for Microsoft Office integration do not require installation on users’ PCs or other devices. This simplifies the setup of the system and enables users to move easily between cloud and on-premises features. Customization allows users to have their own dashboard, displaying the features and functions they are permitted to access. For users on the go, Alfresco also offers native mobile applications for Android and iOS. In addition, Alfresco has integration options for leading business applications, such as Salesforce.com, and desktop applications, including Microsoft Outlook. It also adheres to open standards.

Extensive metadata support improves the search capability
Alfresco includes flexible out-of-the-box metadata models, which can be extended to suit customer-specific use cases. Metadata can be automatically extracted from content as it is uploaded. Search results can be filtered on facets, which are based on context and formed from the metadata models. Administrators can define when facets are displayed and what properties users can filter on. Alfresco Search Services, which is new to Alfresco Content Services 5.2, provides better scaling and performance, as well as greater architectural choice for deployments.

**Alfresco Content Services provides a secure ECM platform**

Alfresco Content Services provides multilevel security. This includes native encryption of content in transit and at rest on top of security measures provided by a platform such as AWS. Access control can be applied at a granular level to ensure that business-critical content remains secure. Alfresco provides a scalable platform that can manage more than 1 billion documents, with a high-availability architecture including clustering that can be easily configured. Alfresco is certified on cloud-native technology including AWS Quick Start, Aurora, S3, and IAM.

**Weaknesses**

There is no native access to content stored in third-party ECM systems in other clouds

The document-management capabilities of Alfresco Content Services cannot access content in third-party, on-premises ECM systems, which could impact users that need to access content stored in external repositories. However, Alfresco is working on functionality to allow access to content in other ECM systems stored on-premises or in other clouds. This functionality is available through Alfresco partners such as Simflofy.

There is limited direct integration with Office 365

Although Alfresco has an Outlook Connector that works well with Office 365, the integration of document-management or collaboration tools with Office 365 is otherwise limited, which will impact organizations that have deployed Office 365. However, it is on Alfresco’s roadmap to provide content, process, and governance services to the Office 365 apps in the same way that it supports on-premises Microsoft Office integration.

**Opportunities**

Digital transformation is driving a requirement for IT modernization

Alfresco is ideally placed to increase its market share from organizations that are looking to undergo digital transformation. Cloud deployment is an important element of digital transformation, particularly when combined with a mobile-first strategy. Alfresco Content Services provides extensive mobile support with responsive design, native support for iOS and Android devices, and partnerships with mobile device management (MDM) vendors. In addition, Alfresco has its own native process engine with Process Services, which provides an additional opportunity.

Alfresco is well positioned to acquire customers that want to migrate from legacy ECM systems

Many organizations are still using legacy ECM systems, with a high number of these running multiple ECM platforms. Many want to move from proprietary on-premises systems to cloud-based implementation. As organizations look to modernize their content architecture, there is also tremendous value in Alfresco’s open representational state transfer (RESTful) APIs and modular architecture, because these allow organizations to easily integrate their existing environments.
its migration tools and bulk import tools to help organizations move their content to the cloud, Alfresco is well placed to increase its market share.

**Threats**

**Take-up of ECM in the cloud has so far been slow**

A major threat to ECM vendors that want to increase their share of the cloud market is the reluctance of organizations to adopt ECM in the cloud. To date, most deployments have been in private rather than public clouds. Security concerns are often cited as deterrents to storing content in the cloud. Vendors need to persuade customers that cloud-stored content can be more secure than content stored on-premises.

**Competition is stiff in the ECM market**

A large number of ECM vendors provide cloud-based services with little differentiation in their functionality. If it is to remain competitive, Alfresco must continue to look for opportunities to extend the functionality of its ECM portfolio.

**OnBase by Hyland (Ovum recommendation: Leader)**

![Figure 7: OnBase by Hyland radar diagrams](source: Ovum)
Ovum SWOT assessment

Strengths

**OnBase is a single platform on top of which content-enabled applications can be built**

OnBase is a single platform applicable for cloud and on-premises implementations. It provides an
ECM platform, case management, BPM, capture, and EFSS via ShareBase, enabling users to
capture, manage, access, integrate, measure, and store content. Comprising more than 300 modules,
capabilities can be turned on by applying a license.

**Hyland uses 10 data centers on four continents**

Hyland owns the infrastructure and manages the cloud deployments located in tier-3 or tier-4 data
centers. It adheres to data sovereignty requirements, ensuring that content remains in the appropriate
jurisdictions. Three copies of a customer’s data are stored, with one copy in a separate geographical
location to ensure business continuity. Multiple deployment options are available to suit all
requirements.

**Integration is provided with ERP and CRM systems**

Out-of-the-box integration is provided with a range of widely deployed ERP and CRM systems. In
addition, integration tools and APIs are available, enabling organizations and partners to create
integrations with other back-end systems. OnBase can integrate with cloud and on-premise systems.
OnBase also provides a large number of integrations with applications in each vertical that it provides
solutions for, including healthcare, insurance, government, financial services, and higher education.

**OnBase includes a wide range of capabilities**

A wide range of features are available, including records management, automated redaction,
exception reports, encryption at the database (metadata) and file levels, and full audit trails.

Weaknesses

**Out-of-the-box integration is not provided with third-party EFSS products**

Although OnBase includes its own EFSS capabilities with ShareBase, there are no out-of-the-box
integrations with third-party products. While organizations can create their own EFSS integrations
using the tools and APIs provided, this will require resources to undertake the work.

**Records management does not comply with non-US certification standards**

The requirements of records management systems differ according to geography. While OnBase
conforms to Department of Defense (DoD) 5015 2 Chapter 4 in the US, which is the standard that
ECM vendors most often comply with, it does not comply out-of-the-box with standards for other
countries such as VERS in Australia and DOMEA in Germany. This is important because to be
compliant in records management, organizations in these countries need to select a records
management system that complies with local standards. However, many organizations are able to
comply with standard records management compliance requirements outside of the US through the
configurability of the OnBase platform.

Opportunities

**With its long experience of providing ECM in the cloud, Hyland has the opportunity to increase
its market share**
As ECM in the cloud begins to gain more traction, Hyland with its 14 years’ experience of providing cloud solutions has the opportunity to increase its market share. With its generous compensation rates for service breaches and its high service level agreements, Hyland offers a compelling hosted proposition.

**Hyland can increase its market share in vertical industries**

Hyland has been particularly successful in the higher education, insurance, healthcare, government, financial services, and commercial sectors. It can increase its market share in these and other verticals by offering packaged solutions and also by working with partners that can provide solutions for a wide range of vertical industries.

**Threats**

**Take-up of ECM in the cloud has been slow to date**

A major threat to ECM vendors that want to increase their share of the cloud market is the reluctance of organizations to adopt ECM in the cloud. To date, most deployments have been in private rather than public clouds. Security concerns are often cited as deterrents to storing content in the cloud. Vendors need to persuade customers that cloud-stored content can be more secure than on-premises stored content.

**Competition is stiff in the ECM market**

A large number of ECM vendors provide cloud-based services, with little to choose between them in terms of functionality. If it is to remain competitive, Hyland needs to ensure that it continues to look for opportunities to extend the functionality of its ECM portfolio.
IBM ECM Cloud Portfolio (Ovum recommendation: Leader)

Figure 8: IBM ECM Cloud Portfolio radar diagrams

Source: Ovum

Ovum SWOT assessment

Strengths

Content Navigator provides a single user experience across the portfolio

The IBM portfolio offers a single-user experience with Content Navigator, which provides a consistent look and feel across the portfolio. It is used across all deployment models regardless of whether products are being used on premises or in the cloud, or a mixture of the two. It is available for web, mobile, and desktop use. Content Navigator is also used for partner solutions.

Cognitive computing has been added to capture

Extensive capture capabilities scale from entry-level departmental scanning to enterprise capture automation to meet the requirements of central and distributed users. Tight integration with IBM Watson adds cognitive capture by using advanced imaging, rules, natural language processing, and machine learning techniques to recognize, classify, and extract business data from documents that are not known to the capture system.

Cloud and on-premises users can work together seamlessly
Using the same software for cloud and on-premises versions of the portfolio, users can share documents, collaborate, and work within processes regardless of whether they are using the solution in the cloud or on premises. They are also able to access content on premises or in the cloud due to support for federated ECM, negating the need to move content into the ECM repository.

**Office 365 integration is included**

An important feature in cloud-based ECM systems is integration with Office 365, because Office is the most common content-authoring suite. Office 365 has gained a lot of traction since it was first released, and it is important that ECM users are able to access a variety of cloud solutions that also include Salesforce and other CRM products and ERP systems.

**Weaknesses**

**IBM does not provide out-of-the-box solution templates for any vertical industries**

Out-of-the-box solution templates are a useful feature for organizations implementing ECM platforms, but IBM does not provide any industry-specific templates, which may increase the amount of services that are required for organizations implementing IBM’s ECM portfolio. However, IBM has more than 1,250 worldwide ECM partners with more than 134 vertical solutions including SaaS and on-premises software.

**Opportunities**

**IBM’s ECM portfolio can help organizations to build digital businesses**

The move to a solutions approach that connects people, things, data, markets, and customers where the boundaries between individual products such as ERP, CRM, IoT, and ECM are blurred is often known as digital business. Opportunities are ripe for vendors such as IBM to exploit this by offering solutions that combine a number of products that communicate, manage transactions, and inform the organization. The IBM ECM product portfolio helps organizations to design, build, and evolve their digital business with capabilities for capture, archiving, governance, case management, and collaboration.

**Watson Data Platform provides an opportunity to apply deep analytics to content and data**

Integration of ECM capabilities with Watson Data Platform enables business data to be extracted from content in ECM repositories, which is then included and aggregated with other sources of data in data lakes for deep analytics on business operations or customers. This provides IBM with an opportunity for cross-selling, and it should be regarded as a competitive advantage.

**Threats**

**Take-up of ECM in the cloud has been slow**

A major threat to ECM vendors that want to increase their share of the cloud market is the reluctance of organizations to adopt ECM in the cloud. To date, most deployments have been in private rather than public clouds. Security concerns are often cited as deterrents to storing content in the cloud. Vendors need to persuade customers that cloud-stored content can be more secure than on-premises stored content.

**Competition is stiff in the ECM market**
There are a large number of ECM vendors that provide cloud-based services, with little to choose between them in terms of functionality. If it is to remain competitive, IBM needs to ensure that it continues to look for opportunities to extend the functionality of its ECM portfolio.

**Kofax ECM Portfolio (Ovum recommendation: Challenger)**

**Figure 9: Kofax ECM Portfolio radar diagrams**

**Ovum SWOT assessment**

**Strengths**

The Intelligent Capture suite of tools identifies and extracts critical business information

Kofax Capture and Kofax Perceptive Intelligent Capture identify and extract business information from semi-structured and unstructured documents. They allow straight-through processing of many types of documents, such as invoices and transcripts, which automates processes that were previously manual. Extensive features are provided to aid the capture and extraction processes.

Content analytics is offered as an optional component through Kofax Perceptive Content Business Insights and Kofax Perceptive Enterprise Search

Content analytics analyzes how both cloud and on-premises content is being used and by whom. By recognizing patterns in the content, it is able to help identify similar documents. It identifies and
suggests content that may be of interest to users based on the content they use, and it identifies users that are creating similar content. In addition, it detects sentiment within text, which helps users to improve customer service and interactions by being able to identify negative comments and respond quickly.

**Case management is provided with Kofax TotalAgility**

Kofax TotalAgility provides extensive case management and BPM capabilities that support the end-to-end automation of business processes and help improve customer support. It is provided as a cloud service as well as on-premises software. Its features include process definition and modeling tools, process and rules engines, integration with third-party cloud-based BPM services, full process and workflow capabilities, a full range of audit trail facilities, and a fully featured forms design tool. Pre-built processes are included out of the box.

**Flexible cloud deployment models are available**

Kofax takes advantage of the cloud facilities offered by Amazon and Microsoft to host its SaaS offerings. Kofax's cloud services department hosts and manages customer solutions in its clouds, and a select set of partners have the capability to host Perceptive Content deployments. Cloud deployment models include multitenant in a public environment (available for some services), multitenant in a private environment, isolated public instances, and isolated private instances.

**Weaknesses**

**Records management does not comply with non-US certification standards**

The requirements of records management systems differ according to geography. While Perceptive Records Manager complies with the US Department of Defense Standard 5015.2, which is the standard with which ECM vendors most often comply, it does not comply with standards in other countries, such as Australia's Victorian Electronic Records Strategy (VERS) or Germany's Document Management and Electronic Archiving (DOMEA) standard. This is important because in order to be compliant in records management, organizations in these countries need to select a records management system that complies with local standards.

**Information rights management is not included in the portfolio**

Kofax does not offer information rights management in its ECM portfolio, although partners have the ability to add the technology to Perceptive Content via APIs if required.

**Opportunities**

**Migration tools to help organizations move to Kofax ECM portfolio should help it win more deals**

Kofax provides migration tools that allow existing content and metadata to be ingested to help organizations migrate content from legacy ECM repositories to the Kofax ECM portfolio. Various methods are offered for ingesting content, including shipping out drives to upload the content for large volumes of content, and using a secure file transfer protocol (FTP) or S3 for smaller volumes.

**Enterprise file sync and share (EFSS) capabilities can provide a first step to ECM in the cloud**

EFSS is a good way for organizations to test the cloud before committing more critical applications and content to it. With EFSS capabilities included in the portfolio, Kofax can allow organizations to use the cloud to support their collaboration needs before adopting the cloud for other ECM technologies.
Threats

Take-up of ECM in the cloud has so far been slow

A major threat to ECM vendors that want to increase their share of the cloud market is the reluctance of organizations to adopt ECM in the cloud. To date, most deployments have been in private rather than public clouds. Security concerns are often cited as deterrents to storing content in the cloud. Vendors need to persuade customers that cloud-stored content can be more secure than on-premises stored content.

Competition is stiff in the ECM market

A large number of ECM vendors provide cloud-based services with little differentiation in their functionality. If it is to remain competitive, Kofax must continue to look for opportunities to extend the functionality of its ECM portfolio.

Microsoft Office 365 (SharePoint Online and OneDrive), SharePoint Server 2016 (Ovum recommendation: Leader)

Figure 10: Microsoft Office 365 (SharePoint Online and OneDrive), SharePoint Server 2016 radar diagrams

Source: Ovum
Ovum SWOT assessment

**Strengths**

**Hybrid capabilities enable organizations to seamlessly integrate a number of functions**

Organizations can apply SharePoint capabilities to both on-premises and cloud-based content. For example, when searching on-premises repositories, premises-based servers pass crawled document properties to a cloud-based unified search index that provides a single set of search results. Using OneDrive, enterprises can redirect on-premises personal file storage to a cloud-hosted OneDrive for Business. Delve works with cloud hybrid search, and the unified search index can be used to discover trending content and documents of interest to the user.

**SharePoint team sites support permanent and short-lived collaboration**

SharePoint team sites can be used for permanent purposes, such as long-term collaboration for teams or departments, or can be used for more temporary reasons, such as managing a project, event, or something more transient. The capabilities can be extended through Office 365 group membership, which adds related collaboration tools, such as team chat, calendar, and planner.

**Content services provide extensive content management capabilities**

Content services provide traditional ECM capabilities such as document management, enabling users to create, collect, and classify documents, as well as collaboration, with the ability to share, discuss, and co-author content, create custom forms and apps, and automate content-centric processes. They also provide the ability to manage compliance and reduce risk through lifecycle, information architecture, auditing, rights management, eDiscovery, and records management, and the ability to search, analyze, discover, and reuse content, expertise, and context.

**A large number of connectors are available for third-party SaaS and on-premises applications**

Office 365 provides workflow and connectivity to many SaaS and on-premises data sources and applications using Flow, as well as via traditional SharePoint Designer-based workflow. Content management interoperability services, documented RESTful, and CSOM APIs are all supported for access to hosted content. In addition, SharePoint and Office 365 provide a rich set of APIs for server-side and/or client-side development.

**Weaknesses**

**Records management capabilities do not include certification with DoD 5015 or regional bodies**

Organizations that absolutely require (for legal purposes and not just to “check a box”) records management, certifications such as DoD 5015 in the US, VERS in Australia, DOMEA in Germany, and so on will need to use a Microsoft partner to meet these certifications. SharePoint is certified against many national, regional, and industry-specific requirements for the collection and use of individuals’ data. In addition, SharePoint provides extensive records management capabilities, including retention, holds, immutability, eDiscovery, and controlled destruction, all of which will give most organizations the features they require. The absence of the records management certifications will not necessarily be a problem for organizations that do not have legal requirements.

**Opportunities**

**Microsoft can increase its ECM market share in the cloud market**
Microsoft has an advantage over many of its ECM competitors in that it is primarily focused on cloud, while other vendors are primarily focused on legacy on-premises architectures. Take-up of Office 365 has been high, and it takes only a relatively small step to adopt SharePoint Online for its ECM capabilities. Microsoft can take a large slice of the cloud market for ECM, while other vendors are struggling to persuade customers to move their content to the cloud.

**SharePoint is a good introduction point to ECM**

Microsoft’s aim is to deliver ECM to all types of organization, and there is the opportunity to introduce companies that have never used ECM before to the technology. Because SharePoint provides a cost-effective way of accessing ECM functionality, it provides organizations that have been prohibited from implementing ECM platforms with the opportunity to deploy extensive ECM capabilities.

**Threats**

**Take-up of ECM in the cloud has been slow to date**

A major threat to ECM vendors that want to increase their share of the cloud market is the reluctance of organizations to adopt ECM in the cloud. To date, most ECM deployments have been in private rather than public clouds, although Microsoft is bucking the trend with Office 365, an almost exclusively a public cloud offering. Security concerns are often cited as deterrents to storing content in the cloud. Vendors need to persuade customers that cloud-stored content is generally more secure than on-premises stored content.

**Competition is stiff in the ECM market**

A large number of ECM vendors provide cloud-based services, with little to choose from between them in terms of functionality. If it is to remain competitive, Microsoft needs to ensure that it continues to look for opportunities to extend the functionality of its ECM portfolio.
Nuxeo Platform, Nuxeo Studio, Nuxeo Mobile, and Nuxeo Drive, LTS 2016 (Ovum recommendation: Challenger)

Figure 11: Nuxeo Platform, Nuxeo Studio, Nuxeo Mobile, and Nuxeo Drive, LTS 2016 radar diagrams

Source: Ovum

Ovum SWOT Assessment

Strengths

Nuxeo provides complete metadata modeling

With Nuxeo, the metadata provides the context for the document, and the document can have more than one set of metadata to reflect the context in which the document is being used. A schema-flexible metadata model is used, which can easily be adapted and expanded as customer requirements change over time, ensuring that content can be repurposed for future use cases.

Nuxeo has a pluggable approach to repository infrastructure

Customers can choose the combination of databases and file stores they wish to adopt that can change as their requirements evolve. This approach allows customers to change from a SQL to a NoSQL database as required. In addition, Nuxeo supports a wide variety of file stores including S3, Azure, enterprise file sync and share (EFSS), file systems, and GridFS. This pluggable approach has the advantage of preventing vendor lock-in.
Nuxeo manages all content types within a single system

Nuxeo can manage rich media and “self-describing” content types within its ECM system. Most ECM vendors with the ability to manage rich media have digital asset management (DAM) systems in their portfolios. Nuxeo’s capabilities include the ability to manage audio, video, and images alongside Office documents, PDFs, and scanned documents. Rich media features include creating storyboards, automated renditions, and transcoding, all of which are more commonly associated with advanced DAM products.

Weaknesses

Nuxeo's records management capabilities do not include any certifications

Nuxeo’s records management system is not certified by any certification bodies. This will pose a problem for organizations in regulated industries that need to be able to prove they comply with regulations and legislation, including implementing certified records management systems. However, one of the major criticisms of certified records management systems is that they are not easy to use. For organizations that are not in highly regulated industries, however, the lack of certification will not necessarily pose a problem.

Built-in information rights management (IRM) is not included

Nuxeo does not include native IRM facilities, so organizations that need to apply security measures to content to limit what actions users can take will need to implement a third-party product. Because many ECM systems do not provide IRM capabilities, organizations with this requirement often already have an IRM system in place.

Opportunities

Artificial intelligence and machine-learning advancements provide an opportunity for Nuxeo

Nuxeo has productized integrations with Amazon Rekognition and Google Vision to support auto-tagging for content that is not considered “self-describing”, such as images (photos) and video. This will provide an opportunity for Nuxeo as ECM vendors start to examine the ways in which they can take advantage of advances in artificial intelligence and machine learning.

Nuxeo will provide a “universal data model” to connect to core content repositories

Nuxeo has recognized that managing all content in a single repository is no longer feasible, and is therefore developing a “universal data model” that will connect to core content repositories and apply a rich metadata layer to them while managing the content in place. To support this, Nuxeo will create a connectivity framework and productize connectors to core content repositories. This will provide it with a competitive advantage.

Threats

Take-up of ECM in the cloud has so far been slow

A major threat to ECM vendors that want to increase their share of the cloud market is the reluctance of organizations to adopt ECM in the cloud. To date, most deployments have been in private rather than public clouds. Security concerns are often cited as deterrents to storing content in the cloud. Vendors need to persuade customers that cloud-stored content can be more secure than on-premises stored content.

Competition is stiff in the ECM market
A large number of ECM vendors provide cloud-based services, with little differentiation in their functionality. If it is to remain competitive, Nuxeo must continue to look for opportunities to extend the functionality of its ECM portfolio.

OpenText Documentum v7.3 (Ovum recommendation: Leader)

Ovum SWOT assessment

Strengths

OpenText Documentum provides a number of industry solutions to organizations in regulated industries

OpenText provides vertical solutions for the energy and engineering, life sciences, and healthcare sectors, while partners provide solutions for financial services and the public sector. For example, an extensive portfolio of solutions is offered in both life sciences and energy and engineering. In life sciences, Documentum solutions address four areas. For trial master file and clinical, eTrial Master File provides applications. For research and development, it offers applications in the areas of non-clinical, clinical and safety, quality regulatory labeling and ad/promo, and medical device clinical and regulatory. Submission Store and View offers applications for regulatory submissions and regulatory correspondence. For quality and manufacturing, there are applications for procedural,
manufacturing, quality, medical device, and change request. In energy and engineering, Documentum solutions address the complexities of managing regulated content throughout the lifecycle of a capital asset, focusing on the design and construction of capital projects in its cloud-based solutions.

**Extensive records management is included in the portfolio**

OpenText Documentum includes a records management system, which is certified for Department of Defense (DoD) 5015 Chapter 3, DoD 5015 2 Chapter 4, and Victorian Electronic Records Strategy (VERS). Certification against standards is important because organizations in many regulated industries have to select records management systems that have been certified with specific bodies in order to be compliant.

**OpenText Documentum includes extensive case-management functionality**

A focus area for Documentum is case management, which enables organizations to build solutions that address content-centric processes. Documentum includes full BPM capabilities, which enable non-technical users to create processes.

**OpenText LEAP provides microservices that incorporate specific tasks**

OpenText LEAP is a next-generation platform-as-a-service that incorporates individual content-centric functionality to address very specific cases. Sitting on top of the ECM platform, it allows organizations to use their existing technologies, and integrates with front-end and back-end systems using REST, CMIS, and other standard data architectures and service layers. Apps include Snap for mobile capture; Courier for exchanging documents; Concert for collaborative authoring; Express for content access and approvals; Focus for responsive document viewing on mobiles; and Core for file sync and share.

**Weaknesses**

**OpenText Documentum does not include built-in content analytics**

Documentum does not include text analytics in its cloud offering. Content analytics is becoming increasingly important in ECM as a way of enabling organizations to analyze how content is being used, and as an aid to providing users with the content they require.

**Opportunities**

**OpenText can expand the number of cloud-native content services and applications available.**

OpenText has the opportunity to be the leader in the development of next-generation cloud content services by developing additional cloud-native content services and applications based on the LEAP Platform. The vendor plans to develop a community centered on LEAP to provide a market for community-developed apps that will accelerate the growth of these services.

**OpenText can increase the number of its vertical market solutions through partnerships**

While OpenText delivers cloud-based solutions in both life sciences and energy and engineering, it has worked with partners to deliver about 100 certified industry-specific solutions in financial services, insurance, public sector, and healthcare, many of which are available in cloud deployments. This provides an opportunity to increase its market share.

**Threats**

**Take-up of ECM in the cloud has been slow to date**
A major threat to ECM vendors that want to increase their share of the cloud market is the reluctance of organizations to adopt ECM in the cloud. To date, most deployments have been in private, rather than public, clouds. Security concerns are often cited as deterrents to storing content in the cloud. Vendors need to persuade customers that cloud-stored content can be more secure than on-premises stored content.

**Competition is stiff in the ECM market**

A large number of ECM vendors provide cloud-based services, with little to choose between them in terms of functionality. If it is to remain competitive, OpenText needs to ensure that it continues to look for opportunities to extend the functionality of its ECM portfolio.

**OpenText Content Suite v16.2 (Ovum recommendation: Leader)**

**Figure 13: OpenText Content Suite v16.2 radar diagrams**

**Ovum SWOT Assessment**

**Strengths**

OpenText has a large portfolio of deeply integrated products to address all aspects of ECM
OpenText Content Suite includes products for content, process, analytics, discovery, business network, and experience. Specific capabilities include document management and collaboration, records management, content analytics, BPM/case management, capture, and search.

**OpenText Extended ECM provides a platform for content services and solutions**

OpenText Content Suite includes integration with a number of applications. This includes out-of-the-box integration with and support for major enterprise applications, such as SAP ERP, CRM, and SuccessFactors; Oracle E-Business Suite; Salesforce; and Microsoft Office 365, Office Online, and SharePoint. Organizations can also build their own integrations using content management interoperability services (CMIS) and APIs.

**OpenText Content Suite provides content in context**

Content is exposed in the context of business processes by transparently applying and syncing metadata from the lead application. By doing this to the metadata, content can be queried, ordered, joined, and predictively pulled forward in the context of business processes.

**OpenText LEAP provides microservices that incorporate specific tasks**

OpenText LEAP is a next-generation platform-as-a-service that incorporates individual content-centric functionality to address very specific cases. Sitting on top of the ECM platform, it allows organizations to use their existing technologies, and integrates with front-end and back-end systems using REST, CMIS, and other standard data architectures and service layers. Apps include Snap for mobile capture; Courier for exchanging documents; Concert for collaborative authoring; Express for content access and approvals; Focus for responsive document viewing on mobiles; and Core for file sync and share.

**Weaknesses**

**Short-term confusion about which OpenText ECM platform to implement could act as a deterrent**

OpenText has identified different customer types for Content Server and Documentum, but in the short term there is likely to be confusion among potential customers about which product they should deploy.

**Opportunities**

**OpenText can expand the number of cloud-native content services and applications available**

OpenText has the opportunity to be the leader in the development of next-generation cloud content services by developing additional cloud-native content services and applications based on the LEAP Platform. The vendor plans to develop a community centered on LEAP to provide a market for community-developed apps that will accelerate the growth of these services.

**OpenText can increase the market share for Content Suite through the number of out-of-the-box integrations it provides**

A key feature of OpenText Content Suite is integration with third-party applications such as ERP and CRM to contextualize content. Because OpenText delivers EFSS capabilities natively, it has not focused on integration with these vendors as packaged offerings, but it does offer the ability to build custom integrations using REST API's to facilitate embedding content services into any business application. OpenText can appeal to a wider audience by emphasizing the number of out-of-the-box and custom integrations it provides. One of the tasks that is often bought in by organizations
implementing new systems is the building of integrations. OpenText's provision of integrations with specific applications is therefore a major selling point.

**Threats**

**Take-up of ECM in the cloud has been slow to date**

A major threat to ECM vendors that want to increase their share of the cloud market is the reluctance of organizations to adopt ECM in the cloud. To date, most deployments have been in private, rather than public, clouds. Security concerns are often cited as deterrents to storing content in the cloud. Vendors need to persuade customers that cloud-stored content can be more secure than on-premises stored content.

**Competition is stiff in the ECM market**

A large number of ECM vendors provide cloud-based services, with little to choose between them in terms of functionality. If it is to remain competitive, OpenText needs to ensure that it continues to look for opportunities to extend the functionality of its ECM portfolio.

**Oracle WebCenter Content v12.2.1.2 (Ovum recommendation: Leader)**

*Figure 14: Oracle WebCenter Content v12.2.1.2 radar diagrams*

Source: Ovum
Ovum SWOT assessment

Strengths

Content and Experience Cloud enables users to collaborate on content

Users can easily collaborate on content, both internally and with external teams, from any device and at any time. Content can be discussed, shared, and annotated on any device (mobile, web, or desktop). With desktop applications, content can be synced to the desktop and then integrated into productivity tools such as Microsoft Word, PowerPoint, and Excel.

Content analytics are included in the portfolio

Endeca Search and Information Discovery powers Oracle’s analytics capabilities. It provides robust administrative analytics and search, including insights into the usage of the cloud service.

Integration with back-end systems allows users to work within their enterprise applications

Content can be integrated and managed contextually from within enterprise applications both in the cloud and on-premises, which means that users can work within their normal transactional applications and access content stored in Oracle WebCenter Content without being aware that they are using an ECM application. No-code embeddable UIs for content management in external apps are provided, along with APIs to manage and render content.

A large portfolio of ECM-related products is provided in the cloud

Oracle’s portfolio of ECM-related products in the cloud is provided with Content and Experience Cloud and the WebCenter brand. Products include WebCenter Content and WebCenter Portal, which enable users to manage documents, images, rich media files, metadata, and records from the point of creation or capture to archiving or deletion.

Weaknesses

Oracle does not provide information rights management (IRM) capabilities

The portfolio is extensive, but Oracle does not include out-of-the-box IRM, and a third-party solution is required for this. Although IRM is not a yet a standard ECM feature, some vendors are beginning to add it, particularly for file sync and share.

Opportunities

Oracle can combine third-party applications with Content and Experience Cloud to provide a central cloud content exchange

Content and collaboration services can be provided for ERP systems to more easily exchange documents, such as invoice statements and credit applications, with customers and internally among teams. SaaS applications can likewise be extended to use Content and Experience as a simple way to collaborate on, manage, and store opportunity-related documents by sales teams. Process Cloud can be positioned to complement Content and Experience to provide process automation such as triggering approvals and notifications, and enabling the classification and filing of business documents. Partner, product, and reference connectors are available for many Oracle systems.

Content and Experience provides services around digital asset management, content management, and delivery of content to multiple channels

Oracle can increase its presence by leveraging use cases to deliver customer or employee experiences, enabling employees to exchange information and engage with the organization, or
customers to interact with the company. Combining digital content, structured content such as blogs and articles, and interactive data-driven applications to create rich experiences that are then delivered through multiple channels can provide a competitive advantage. Content and Experience enhances SaaS applications such as marketing automation and commerce with centralized cloud-based content management and collaboration, using features such as approvals, versions, tagging, and metadata.

**Threats**

**Take-up of ECM in the cloud has been slow to date**

A major threat to ECM vendors wanting to increase their share of the cloud market is the reluctance of organizations to adopt ECM in the cloud. To date, most deployments have been in private, rather than public, clouds. Security concerns are often cited as deterrents to storing content in the cloud. Vendors need to persuade customers that cloud-stored content can be more secure than on-premises stored content.

**Competition is stiff in the ECM market**

A large number of ECM vendors provide cloud-based services, with little to choose from between them in terms of functionality. If it is to remain competitive, Oracle needs to ensure that it continues to look for opportunities to extend the functionality of its ECM portfolio.

**Appendix**

**Methodology**

- Vendor events and analyst briefings.
- Vendor meetings and technology assessments.
- Interviews with end users.
- Discussions with service providers.

**Further reading**

*Fundamentals of ECM in the Cloud*, IT0014-003261, May 2017


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**Ovum Consulting**

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