Modernizing Information Management Systems

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Introduction

The reality is that the modernization of the information management stack within an organization is a project that is often desperately needed but never at the top of the priority list. If the upgrade of a legacy system, or even a full migration to an alternative solution was easy, then it would have been done already.

But in many cases there appears to be no easy option.

That's because in order to replace your legacy system, you usually need to turn the system off and turn a new one on, which can be risky and disruptive to the business: what if the new system doesn't have all of the data or doesn't connect in the same way to the website? A 'Big Bang' style switchover is not for the faint hearted, and usually involves the need for extensive back-out scenarios should things not go as planned.

But there is another way....

A Content Services Platform, or CSP, brings new ideas and a new approach to managing legacy applications. Instead of instantly ripping and replacing old systems with a new one, it advocates taking two steps to get to the same goal. This modernization two-step exposes benefits early in the process, and reduces the risk of a failed project. So, what are these two steps? And how can they help solve the challenge of modernizing legacy applications within financial services? Read on to find out....

Why Does Information Management Need Modernizing?

76% of organizations cannot find the right information in a timely manner

The way in which organizations manage their digital assets, processes and systems is in a state of flux.

For many years, the tools and methods for managing information within the business have not changed dramatically. Enterprise content management (ECM) systems have been around for over a decade doing their best to centrally manage documents and transactional processes.

But are they doing a good job? Not according to research conducted by AIIM earlier this year.

The feedback from all industries is that the scale and nature of the information challenge has changed—put simply there is more information, in more places, and more types (and bigger files) than ever before. Call this information overload, big content, digital landfill or whatever you like, the challenges are real.

Challenge 1: Information Explosion

In the early days, ECM promised an information management nirvana— the idea of having one single system within which to store all of your business information, from which to run your processes,
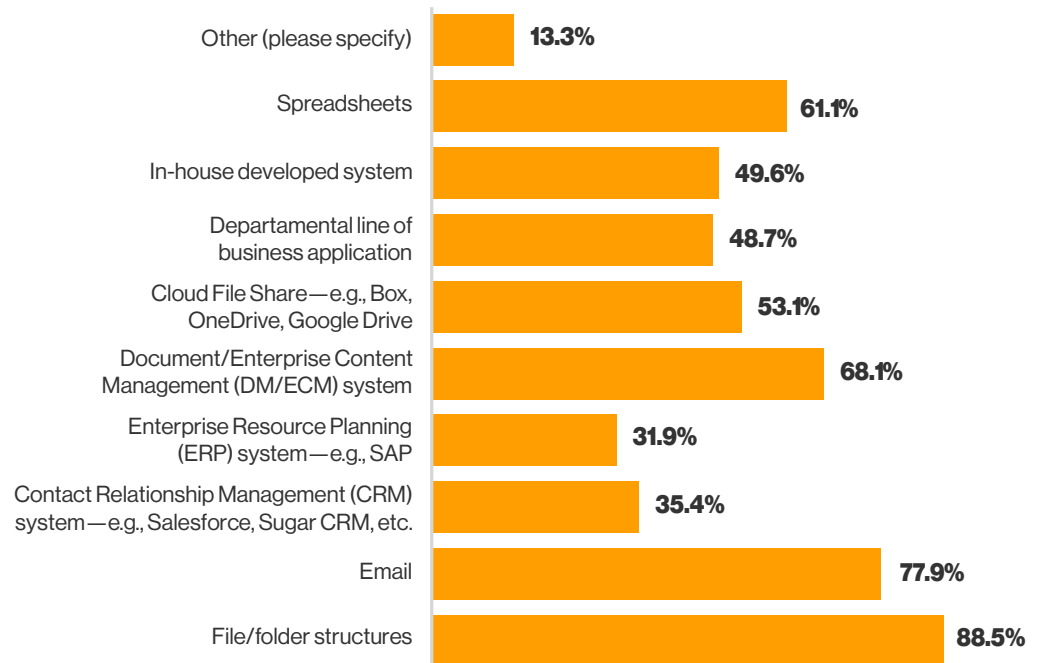
and to manage and control compliance and governance. Well that nirvana turned into a paradox as organizations realized that using one single system simply was not feasible in the real world. The figure below shows the scale of the information explosion challenge with content and data existing in multiple places within the organization.1

This is exactly the situation many organizations

find themselves in now. They have data and content spread across numerous systems (cloud, hosted, homegrown), locations and repositories within the business.

This leads to a core problem with information management—that people simply cannot find information quickly within their daily work life. And if you can't find the right information, then you certainly cannot use it to make effective business decisions.

Which of the following does your organization use to store information and content within the business?
Please check as many as apply.

Category	Percentage
Other (please specify)	13.3%
Spreadsheets	61.1%
In-house developed system	49.6%
Departamental line of business application	48.7%
Cloud File Share—e.g., Box, OneDrive, Google Drive	53.1%
Document/Enterprise Content Management (DM/ECM) system	68.1%
Enterprise Resource Planning (ERP) system—e.g., SAP	31.9%
Contact Relationship Management (CRM) system—e.g., Salesforce, Sugar CRM, etc.	35.4%
Email	77.9%
File/folder structures	88.5%

75% of organizations believe that getting access to information locked in their legacy systems is vital.

Challenge 2: Locked (Legacy) Systems

Having multiple systems within an organization to store, manage and retrieve information from is a pain—primarily in terms of the time it takes to figure out where to put something or conversely where to search for it. But a bigger problem is much of that information gets locked in systems—specifically in legacy applications.

A legacy application is an outdated system that no longer meets the needs of the organization or requirements of today's digital business and cannot fulfill the purpose for which it was intended. One of the biggest challenges with these systems is that they tend to lock valuable data and content within them, in repositories that can

only be accessed by a limited number of users, through arcane and abtruse interfaces.

Our research found that this is a very common problem with 75% of organizations believing that getting access to the information locked in these legacy systems is vital. Knowing that is one thing—actually getting at that information is another.

Challenge 3: Big Content

Multiple places to store and retrieve information, disparate cloud systems and on-premises servers and information locked in legacy systems—these all create very real information management problems. And they are being exacerbated by the speed at which we are expected to work, the tsunami of information hitting us daily, and the numerous types of information that we are being expected to work with.

"Big Content "is an often overlooked, yet critical challenge for the modern organization. In years past, ECM was used largely to execute transactional processes—things like invoice processing and statement creation. These systems all focused around a single, largely static document—ex: an invoice . This made management and processing relatively straightforward—it just needed to be done well at scale.

Think about modern business processes though—something like an insurance claim process. To start with, many insurance claims are now being generated from mobile devices, with images of the damage, or even videos, being included with the claim. Processing of these claims is not about a single document, or a linear process. It is about being able to manage multiple file types, sometimes very large file types with videos for example, via mobile devices, on a completely non-linear timeline. This simply does not fit well with the traditional information management systems in place at many organizations.

For organizations that are trying to deliver an enhanced customer experience, not having the ability to manage this big content problem is a major hindrance.

The Modernization Roadmap

These three challenges highlight just how big a problem exists around managing information today. But an agile, proactive, forward

2018 the year in which video content will account for 79% of all internet traffic.

thinking organization doesn't just want to manage information—they want to extract value from it. They want to use it to drive informed business decisions, stimulate new revenue streams and leverage it as a significant competitive advantage. This state of elevated information usefulness is known as digital transformation.
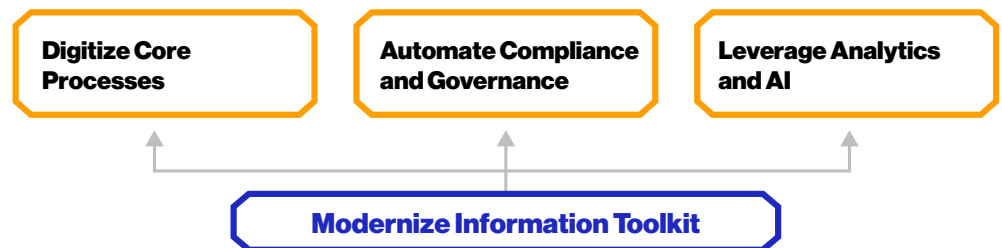
According to AIIM "Every organization is on—or should be on—a Digital Transformation journey", as evidenced by the 81% of organizations who feel digital transformation is important (or very important). But moving from that sense of importance to an actual plan is difficult.

However, one thing is key—if you want to enable digital transformation within any business, the information infrastructure needs to be solid, digital, and modern. Without this as a foundation, digital transformation simply cannot happen.

AIIM maps out the four key practices that are required for digital transformation, but without a modern information toolkit none of the other practices really stand a chance of success.

So how do you modernize the information toolkit? And why has it not been done before?

The logical thing to do when looking to provide a more modern solution to any problem, is to replace the old system with a new one. This so-called "rip and replace" approach has been the option of choice for many years in the information management space, and when executed well, can deliver significant benefits. The challenge is that the rip and replace projects are notoriously difficult, and even more risky.

Digitize Core Processes	Automate Compliance and Governance	Leverage Analytics and AI

Modernize Information Toolkit

Why Rip and Replace Doesn't Work

Think about what needs to happen for a rip and replace project.

1 A new system needs to be identified that a) does everything that the old system did plus b) does it all in a modern way.

2 A migration of data, content and settings needs to happen from the old system to the new system.

3 Users need to be trained on the new system.

4 Any applications built on top of or connecting to the old system need to be migrated to the new system.

5 A migration methodology must be developed that results in minimal disruption to business operations.

6 Back-out strategies must be tested and be ready should the deployment not go as planned.

These are a challenging set of requirements but even more so when you consider that all of this needs to happen without causing any disruption to the day-to-day operation of the business.

So, it should come as no surprise to learn that many organizations do not perform rip and replace projects. They simply add new systems on top of the existing systems, which adds to the multiple repository challenge described earlier. So, are we destined to live in a world of ever increasing, disparate information systems— simply making our information overload worse with each cycle? No—we are not.

Content Services— The Building Blocks of Modernization

In order to solve the information challenges faced by modern organizations, a modern solution is required. Enter the Content Services Platform (CSP). From a high level, a CSP may look like the ECM systems of the past—however, there are three ways in which a CSP significantly differs from an ECM solution:

1. Modern

A Content Services Platform needs to be a part of the modern information management toolkit, not built 10 years ago in a time before mobile and cloud had taken off. In addition, it needs to be able to natively and effectively manage all of the data and content types that we use today—video, audio, social media, etc.— not just scanned documents and word files. And finally, it needs to do all of this for billions of items. In short—a CSP needs to address the Big Content challenge head on.

2. Connected

ECM solutions were designed to be insular—they were sold as the "one place to store all of your content". As we have already established, that never actually happened. So CSPs take a very different approach, while still having the ability to store data and content locally (in their own repository), they are able to connect to other information sources within the business. This means that they can access content stored in an old ECM system, or interrogate data stored in a legacy accounting application—all from a single platform. This is key and provides users with a single place to go to in order to store and retrieve information.

3. Personalized

The modern and connected aspects of a CSP are all about IT and the business— making sure the system scales and connects systems together. The final element brings the benefit of all of this behind the scenes work to the user—via personalization.

Quite simply, this is about allowing users to store, view, edit and interact with data and content however they want to. That could be via the CSP interface, but equally it could be via a mobile app, a productivity app (such as MS Outlook), a line of business app like Salesforce, a web portal, or even a custom-built application to perform a specific task or process for the business.

This capability changes the dynamic of how users interact with information—in the past the user has had to adapt how they work, to find and interact with information.

Now the system can be tailored, nay personalized, to the exact requirements of the individual end users—and that is massively powerful.

Putting these three pieces together—modern, connected and personalized—creates a relevant, scalable, flexible platform to drive positive change throughout an organization. And with that in place, the journey towards information management modernization, and ultimately digital transformation, can begin.
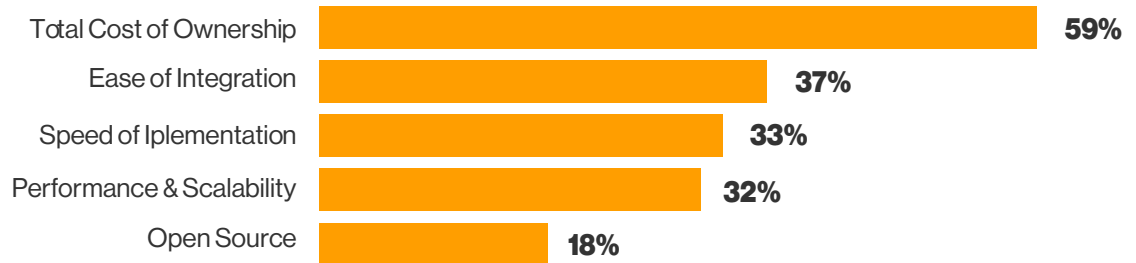
Organizations tend to look for one of

two key drivers when exploring digital transformation: a rapid return on investment (ROI) and a reduced total cost of ownership (TCO). Indeed, according to research performed by BAO (By Appointment Only), TCO is the most important aspect of any new technology.

Unfortunately, ROI and TCO often compete against each other, especially when it comes to modernization.

You "can" get a rapid ROI by deploying a new system to solve some of the business challenges, and you can reduce your TCO by retiring old applications as part of that new deployment—but what we are describing here is a rip and replace model, that ultimately fails because of all the arguments previously described.

Now the system can be tailored to the exact requirements of the individual end users.

However, there is a simple approach that can deliver both ROI and TCO, without the need for a rip and replace model. We call it Connect and Consolidate.

Most Important Aspect of New Technology

Aspect	Percentage
Total Cost of Ownership	59%
Ease of Integration	37%
Speed of Iplementation	33%
Performance & Scalability	32%
Open Source	18%

Connect

As discussed earlier, adding a new system to replace existing functionality brings its own challenges. A new alternative is to install a Content Services Platform that enables organizations to connect to existing systems, and in the process enhance and build on the capabilities of those existing systems. This approach was not viable in the era of ECM as systems were typically not "open"—or they did not provide a means for other systems to connect, query and access content and data from them.

This is changing. And deploying a system to connect the previously disparate data and content repositories within a business has several advantages.

1. Unlock information

Information within a system is only useful to those who can access it. If access is restricted due to limited user licenses, difficult to use interfaces, outdated technologies or too many disparate systems the value of this information is significantly decreased. Unlocking access to this information creates value each and every time it is accessed.

2. Leverage existing investment

Money has already been spent on existing systems, so to simply throw all of these investments away doesn't make good business sense. Organizations should look at ways to maximize investments by connecting to these existing systems rather than throwing them away.

3. Streamline processes and information access

The disconnected nature of systems within a regular organization means that for many people, moving between systems to find all the information they need to complete a task is a regular occurrence. Imagine if that application—that has to switch and search across multiple repositories—was removed and replaced by a single place to go to in order to get that information.

4. Analyze activity

Another benefit of connecting before migrating is that you can analyze what data and content is actually being used in the current systems. Research suggests that around 70% of the information we store is ROT (redundant, outdated or trivial) so why move it all? So, connecting the systems first, allows an organization to understand what actually needs to be migrated in the future.

5. Rapid ROI

As previously mentioned organizations are looking for ROI—quickly. There are many productivity gains associated with connecting information systems together, but the simplest and often most compelling is the ROI gained from having just one place to store and access information. This benefit kicks in as soon as you connect two or more systems together, and does the same for every other system you connect.

Effectively providing a platform to connect information systems together can deliver against all four of the digital transformation practices from AIIM as described earlier. However, the second step of our methodology moves beyond functional transformation to financial and operational transformation.
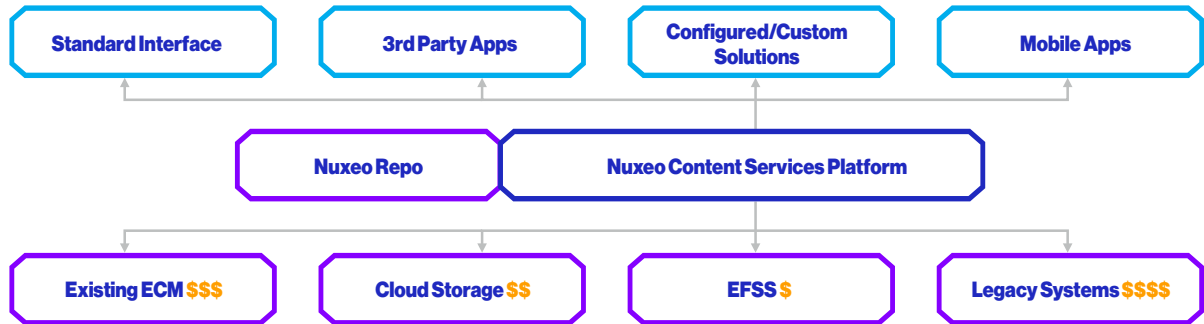
Consolidate

During the connect phase the emphasis is on leveraging existing investments and providing value from what is already there. It is designed to remove the need for rip and replace style efforts that are both complex and risky. However, once the connect phase has been successfully executed, there is the ability to review how necessary various pieces of the information management toolkit are actually necessary.

Picture the new environment that an organization has built. They have a central content services platform (CSP) that is used to connect the various information systems together but is also used

as the primary point of reference for both users and applications to reference for business information. The CSP however, also has its own repository, and this is key moving forward.

| Standard Interface | 3rd Party Apps | Configured/Custom Solutions | Mobile Apps |

| Nuxeo Repo | Nuxeo Content Services Platform |

| Existing ECM $$$ | Cloud Storage $$ | EFSS $ | Legacy Systems $$$$ |

As the diagram shows, the various systems within the (now connected) information management toolkit all have associated costs—be they annual support and maintenance, servers, dedicated staff and skills to operate them, and so on. Over time, the operations performed by these systems become less and less as new interfaces and ways to use the information stored within these systems are routed through the CSP. As such, the user and the interface are separated from the place where the information is held—the CSP becomes the lens on all business information.

What this means is that physical location of the actual data and content becomes irrelevant—or more to the point, the physical location of data and content can be changed without impacting the end user or solutions built using it. This is massively important as it means that an organization can now move information from old, expensive systems to either the CSP repository, or indeed any other repository that they want.

This migration is different to a rip and replace because it can be done gradually and entirely behind the scenes—removing both the risk and the business impact.

Even if it takes a year to move the data and content from a legacy system to the new CSP it doesn't matter. However, once the connect phase has been successfully completed, there is the ability to review how various "necessary" pieces of the information management toolkit are truly necessary and unnecessary legacy systems can be retired. The retirement will have no negative impact to the business, in fact quite the reverse, as all costs that were previously spent on the management of the legacy system can be reclaimed— delivering significantly reduced total cost of ownership (TCO) moving forward.

Conclusion

In most walks of life, leaving a legacy is a positive thing. Not so in the Information Management industry, where legacy means old, difficult to maintain and expensive to care for. It's ironically something that is very costly that you often can't afford to be without but also can't take the risk to replace.

As we have seen, the information management challenges faced by organizations today are both real and sizable—and are not able to be solved by legacy technologies or mindsets. The path to digital transformation is a winding one, but one where the first stop absolutely has to be modernization of the information management toolkit within an organization. Get that foundation right and the latter stages of the journey are achievable—fail to lay the foundation and don't be surprised when the whole digital transformation house comes crashing down around your ears.

Modernizing your legacy applications with a content services platform, in conjunction with a strategic connect and consolidate approach to information management, can deliver both short term ROI and longer term reduced TCO—and lay the foundation for further digital transformation efforts. In a digital world where information is everywhere, and every operational and business function depends on information, can you afford not to start your transformation journey today?

Shape Your Future.

Modernize Your Information Systems with Nuxeo.

To learn more about the Connect + Consolidate approach to information management modernization or learn how Nuxeo can help you with your modernization strategy please contact us or visit www.nuxeo.com.

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