

WHEN FEDERATION EMPOWERS DIGITAL WORK

How a Content Services Platform Harnesses
Information for Business Value

Geoffrey Bock – Bock & Company
February 2020



TABLE OF CONTENTS

Digitizing business activities	3
Unlocking the value of content	3
Why content federation matters	4
Confronting repository sprawl	4
Unified digital work experiences	5
Enhancing access to siloed sources	5
Content federation services running in the cloud	6
Focusing on the business benefits	6
What Mobius delivers	7
A content services platform with multiple connectors	7
Enterprise-scale federation that simplifies digital work	8
Simplifying digital work	9
Federation for governance and policy-based controls	9
Optimized for performance	10
Content federation for business agility: three steps to get started	11



WHEN FEDERATION EMPOWERS DIGITAL WORK

How a Content Services Platform Harnesses
Information for Business Value

DIGITIZING BUSINESS ACTIVITIES

In today's digitally driven economy, companies are struggling to digitize organizational practices and business processes. A recent McKinsey study, for instance, finds that established companies have digitized only 30% of internal operations and 26% of world-wide sales. But why? In all likelihood, these companies continue to rely on disconnected content silos that restrict access to valuable information. Organizations are often saddled with inefficient business processes and outdated content management capabilities.

It's not surprising that organizations are unable to cope with the ever-growing volume, velocity, and variety of digitized information. Savvy companies seek to digitize and automate organizational activities by introducing innovative digital platforms while leveraging existing IT investments and information resources where feasible.

To compete effectively, organizations must optimize operations and leverage purpose-built applications. Gartner estimates that by 2021, 85% of the costs and efforts of building a digital platform that transforms business activities will be spent on integrating internal and external systems.

DIGITAL WORK

Companies must simplify how work gets done. Information delivered when needed and in context is more valuable than outputs from routine reports. And yet company employees and business partners alike must contend with continuing content explosions -- information from multiple content silos, produced by different applications, that are deployed with little prior planning. At the same time, they must also pay attention to accessing external sources.

INFORMATION INFRASTRUCTURE

Enterprises must manage their information infrastructure effectively, efficiently, and economically. They must optimize access to disparate repositories to increase productivity, mitigate risks, and enhance agility. Invariably companies are seeking to implement an infrastructure that enables simpler, cost-effective ways to digitize essential tasks and business processes.

DATA PRIVACY MANDATES

Organizations face a growing number of data privacy regulations that dictate how and where content should be maintained. Companies serving European customers must comply with the General Data Protection Regulation (GDPR) from the European Union; those doing business with California customers must abide by the California Consumer Privacy Act (CCPA). Other state and even Federal data privacy regulations loom on the horizon.

UNLOCKING THE VALUE OF CONTENT

While facing these business challenges, companies continue to utilize -- and derive value from -- information maintained within various content silos. Companies must be able to digitize business activities while leveraging existing enterprise applications and content collections.

Accessing information maintained within legacy silos is essential. When unlocking the business value of content, it is important to focus on how best to digitize business activities.



WHEN FEDERATION EMPOWERS DIGITAL WORK

How a Content Services Platform Harnesses
Information for Business Value

WHY CONTENT FEDERATION MATTERS

Content federation reduces the costs and efforts of building a digital platform. It provides the application level services for integrating multiple content silos and information stores. Content federation is designed to simplify and expedite digital work.

For instance, SEI Investments Company (SEI), a global provider of investment processing, management and operations solutions, needed to create a digital platform where employees could easily access customer information stored within several existing repositories. By federating access to different content stores, the company was able to produce a single, consolidated view of customer information. Employees worked from a web-based portal to find the information they needed, regardless of where and how it was initially stored.

Content federation harnesses multiple repositories and helps to transform them into useful digital experiences. These application-level services provide flexible capabilities for accessing and managing information across an enterprise.

CONFRONTING REPOSITORY SPRAWL

Companies that have been in business for a while, such as SEI, usually have multiple content collections, stored within various databases, repositories, and even network file shares. Possibly some have been acquired through corporate mergers. Others are the results of prior business initiatives. Departments often maintain their own departmental collections and collaboration tools, designed to address workgroup needs. With the increasing prevalence of cloud-connected repositories, more silos become accessible on a regular basis.

Companies face a continuing dilemma when digitizing business activities. On one hand, they need to reduce the sprawl of disconnected content silos. And on the other, these discrete applications with their separate repositories support important business functions. Organizations seek to:

- Digitize day-to-day operations
- Improve digital experiences
- Reduce operating costs while continuing to utilize legacy resources

Companies look to leverage investments in existing enterprise information resources wherever possible and prudent. Contemporary and cost-effective ways are needed to rationalize these different content sources.

SEI INVESTMENTS COMPANY

Founded in 1968, SEI Investments Company (SEI) is a global provider of investment processing, management and operations solutions. The company focuses on developing consistently relevant solutions delivered through outstanding client experiences. SEI serves about 11,000 clients, including banks, trust institutions, independent investment advisors, and other financial services organizations.

SEI needed to streamline access to more than 10 million customer statements produced annually for various clients and routinely stored in multiple repositories. To improve customer service, the company sought to provide its employees with a consistent view into the different repositories.

SEI introduced Microsoft SharePoint as a web-based portal to provide its employees with a consistent environment for accessing customer information through a single, uniform digital experience. The company relied on content federation services provided by Mobius® to rapidly integrate SharePoint with the existing repositories maintaining customer statements.

As a result, employees were able to easily access information for different clients and their customers in a consistent way. Employees were able to reduce the time spent searching for and retrieving content across different repositories. SEI, in turn, was able to deliver more value to the organization while keeping the support team small, and also meet its business objectives of controlling cost and reducing risk.

WHEN FEDERATION EMPOWERS DIGITAL WORK

How a Content Services Platform Harnesses
Information for Business Value

UNIFIED DIGITAL WORK EXPERIENCES

As far as company employees and business partners are concerned, content federation spans multiple content silos. Content federation creates a single -- albeit virtual -- view into various content collections across the enterprise.

Content federation provides employees and partners with unified digital work experiences. They have:

- A consistent way to access and view content stored within separate repositories
- A single search experience where they can find and retrieve the information they need, regardless of platform, location, size, or content type
- New capabilities to produce actionable results and automatically incorporate them into steps within a workflow or business process

Through these virtual connections into different content silos, federation has the potential to simplify business activities in innovative ways.

ENHANCING ACCESS TO SILOED SOURCES

Exploiting this potential by enhancing access to siloed sources is another matter. Much depends on how best to unlock content collections and streamline access.

Of course, replatforming applications and redeploying them to the cloud is one way to restructure an information infrastructure. Companies often consider migrating workloads and aggregating content collections from on-premises data centers to the cloud to increase efficiency, boost resiliency, and improve governance through systematic administration. As part of these “lift and shift” efforts, development teams can simplify and consolidate application functions by decomposing them into cloud-powered microservices and making them accessible through open APIs. When companies no longer need to maintain their own information infrastructure, they can focus their efforts and resources on value-added activities that enhance digital work experiences.

But content federation does not depend exclusively on redeploying repositories to the cloud. Companies often have compelling business, security, and/or technical reasons for leaving siloed sources in place.

- Replatforming may not be cost effective
- Companies may have regulatory requirements for maintaining content collections within their own data centers
- Operating constraints may make moving these databases and content repositories to the cloud impractical

For companies that are not able to fully embrace the cloud, there is another path forward. They can leave content repositories in place, continue to run them within existing data centers, and federate access through cloud connections.



WHEN FEDERATION EMPOWERS DIGITAL WORK

How a Content Services Platform Harnesses
Information for Business Value

CONTENT FEDERATION SERVICES RUNNING IN THE CLOUD

Content federation services run within a cloud infrastructure. These services access repositories either directly within the cloud or remotely through external network connections.

Content federation services can integrate with existing repositories in a several ways. Relying on open APIs -- based either on Content Management Interoperability Services (CMIS) or RESTful Web services -- is one option.¹ Most contemporary content repositories include out-of-the-box support for one or both types of APIs. Alternatively, Webhooks, prebuilt adapters, and other kinds of direct connections may be more appropriate in specific circumstances.

When it comes to deciding how best to support the business through content federation, technical teams have a number of options to consider. A hybrid cloud approach to content federation often overcomes the barriers for accessing siloed sources. Without relying exclusively on the cloud, companies can enhance their information infrastructure and substantially improve digital work experiences.

FOCUSING ON THE BUSINESS BENEFITS

It is important to focus on the business benefits of content federation. Content federation services enable agile solutions to both technical and operational problems within an enterprise.

Content federation creates consistent views of multiple siloed sources. Company employees and business partners have unified digital experiences for accessing and using content, regardless of where or how it is stored. The results affect business performance. Companies can leverage federation capabilities, delivered by a content services platform, to improve productivity, address data privacy mandates, and optimize operational activities.

¹. These are two distinct content integration standards. CMIS describes content items and associated tags (or metadata) in terms of self-contained documents. RESTful Web services, by comparison, focuses on more granular content components.





WHAT MOBIUS® DELIVERS

This is where Mobius Content Services from ASG Technologies provides added value when digitizing business activities across an enterprise. Mobius enables companies to cost-effectively enhance their information infrastructures and federate access to different sources, interconnecting content silos and legacy applications. It integrates with external data sources and creates virtual views that simplify digital work.

Mobius accommodates enterprises at all stages of their cloud readiness – both organizations managing content exclusively within cloud-powered repositories as well as those interested only in hybrid cloud connections or requiring multi-cloud architectures. Mobius delivers fast time-to-value where IT projects are completed within days or weeks.

A CONTENT SERVICES PLATFORM WITH MULTIPLE CONNECTORS

As a content services platform, Mobius provides the storage and enterprise-class services for managing and federating content. It stores and manages all types of digitized content within an enterprise scale repository. These granular content components include not only text but also images, audio/video clips, 3 D objects, AR/VR files, as well as innovative formats just coming to market. Mobius features extensive metadata for categorizing and intelligently managing these multiple content types.

Mobius also recognizes “documents” as predefined business objects composed of several content types – such as text and images. Documents, in turn, can be organized into “document classes” and tagged with additional metadata.

Mobius includes capabilities for content federation – connecting to, accessing, and interacting with content stored within silos and network accessible repositories. Companies have options about how best to set up federated collections, depending on workloads and operating requirements. Mobius can view content in place, manage through synchronized updates or batch processes, and ingest content into its own repository.

Mobius supports multiple connection methods for enabling federation, including:

- CMIS for connecting to standards-compliant ECM repositories and accessing documents
- RESTful APIs for loosely coupling with native Web repositories and accessing content components
- Prebuilt and customized adapters through a software development kit (SDK) for integrating with legacy content stores

Mobius has purpose-built integrations with enterprise applications from Microsoft, SAP, IBM and other ISVs that usually eliminate the need for custom development. Mobius features enterprise-grade connectivity where prebuilt adapters, developed over more than twenty years, can contend with shifting enterprise platform deployments and variations. ASG maintains partnerships with a variety of SI providers who can adapt Mobius to most enterprise IT environments.



WHEN FEDERATION EMPOWERS DIGITAL WORK

How a Content Services Platform Harnesses
Information for Business Value

ENTERPRISE-SCALE FEDERATION THAT SIMPLIFIES DIGITAL WORK

When it comes to simplifying digital work, companies have options about how best to utilize Mobius within their information infrastructures. Mobius federates content access and delivery in multiple ways, depending on how companies expect to streamline digital work, mitigate risks, address data privacy regulations, and/or increase productivity.



ACCESS

Mobius supports consistent access into multiple content silos, using a portal or other mechanisms. Company employees and partners can easily access multiple sources and have a unified view into all of the information that they contain. No longer do employees need to use separate commands and discrete screen displays to discover what is in various collections and databases.



SEARCH

Beyond basic access, Mobius supports enterprise search across disparate silos. With single queries, employees and partners can search through multiple collections to retrieve relevant items. End users can view the query results in a single, integrated list. No longer do they need to:

- Search through separate collections and databases in a complex and time-consuming fashion
- Learn and utilize unique query syntaxes for different silos
- View and consolidate separate reports produced by various systems

Rather company employees and business partners become more productive by having easy, fast, and consistent capabilities to locate relevant information.



MAKING CONTENT ACTIONABLE

Finally, Mobius includes capabilities to make federated content actionable. When appropriately designed and configured around predefined tasks, Mobius can both access and update content stored within federated content collections.

Once company employees and partners find relevant items, they can modify them in a consistent manner and store the results either within a unified content repository or within the relevant remote content silos. With the appropriately designed sequence of steps, automated business processes can update these sources as well, enhancing the workflow capabilities supported by individual repositories. While upfront design and process mapping efforts are required, Mobius supports business process automation.



WHEN FEDERATION EMPOWERS DIGITAL WORK

How a Content Services Platform Harnesses
Information for Business Value

SIMPLIFYING DIGITAL WORK

Mobius makes it easy to deliver federated content and produce the useful experiences that business users expect. Mobius supports multiple content presentation capabilities that produce targeted and cost-effective digital work experiences.

Mobius provides federated content that can be incorporated into a portal framework. Companies can then design and develop various ways to access, search, and utilize federated content. For example, call center employees may prefer fewer buttons and require quick access to specific screens, while employees in accounting or records management may want more controls. Even with an enterprise-wide implementation, Mobius can support multiple portals, so each department can have the look and feel that best suits their needs.

Mobius also has capabilities to support mobile experiences and includes a mobile user interface. On-the-go employees and business partners can access federated content, managed either within the Mobius repository or within other sources, anytime, anywhere. The mobile UI includes familiar touch screen operations to view, access, and share information. Companies can save development expenses and minimize risks by using existing content collections, databases, and applications to support mobile and remote users.

Beyond these targeted and self-contained experiences, Mobius features headless content delivery through RESTful APIs. Application developers can programmatically access the federated content they need, within the steps of the application flow. Headless content delivery is a particularly powerful way for companies to focus on their own business objectives and deploy customized applications that transform digital work without being constrained by predefined presentation formats and/or prepackaged experiences.

FEDERATION FOR GOVERNANCE AND POLICY-BASED CONTROLS

Mobius includes capabilities to mitigate risks and manage data privacy mandates by incorporating state-of-the-art capabilities for governance and policy-based controls. Mobius maintains a “policy-first” approach to managing federated content. It wraps content in predefined policies from the moment of ingestion or indexing, by adding policy-relevant metadata to items stored within the varied content sources.

With policy-relevant tags in place, Mobius enables content to flow smoothly through various processes while automating capabilities for regulatory compliance. As part of its policy-first approach, Mobius will support federated records management and distributed legal holds.

Mobius features federated redaction for documents stored within or accessed through the varied content sources – both the Mobius repository itself and distributed content stores. With a single click, Mobius administrators (or other authorized users) can create, manage, and apply redaction templates to any pre-defined document or document class. They can redact specific fields or recognizable alpha-numeric patterns.

For example, redacted content might include social security numbers or other types of personally identifiable information (PII). End users then cannot view the redacted content (such as PII) when they access the federated documents. Redaction templates can be applied to content stored within Mobius as well as from any CMIS or SharePoint connected repositories.



WHEN FEDERATION EMPOWERS DIGITAL WORK

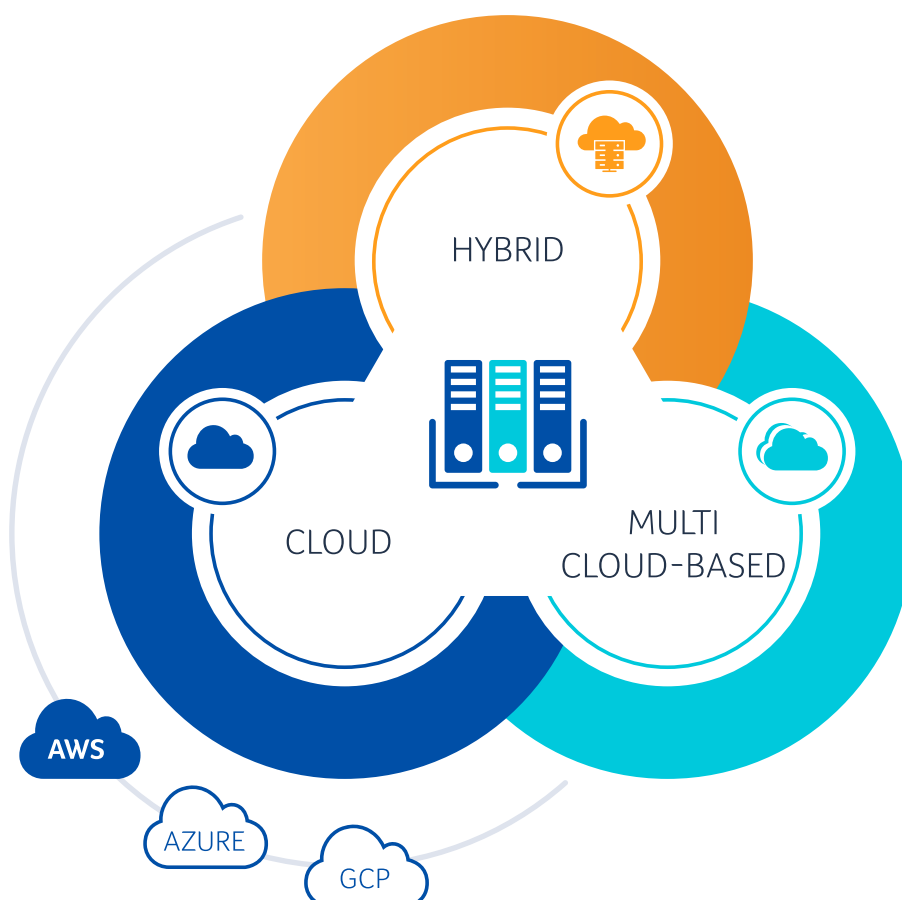
How a Content Services Platform Harnesses
Information for Business Value

OPTIMIZED FOR PERFORMANCE

Mobius optimizes federation services for efficiency and performance. Whether deployed within a public cloud, private cloud, multi-cloud, hybrid cloud, or even on-premises enterprise infrastructure, Mobius easily handles federated access to and retrieval from very large content collections.

Mobius on Amazon Web Services has been benchmarked accessing over one billion documents and 100 terabytes of input data, running more than twice as fast as other content vendors and with less than 50% CPU utilization. Backed by the elasticity of a cloud infrastructure, companies that have seasonal or unpredictable spikes in workloads do not see degradation of performance.

Within an enterprise infrastructure, Mobius includes flexible storage capabilities. It can federate content managed within multiple storage configurations. Mobius indexes all of the federated content within its own database and then retrieves items from tier-one, tier-two, and tier-three storage devices on demand.



WHEN FEDERATION EMPOWERS DIGITAL WORK

How a Content Services Platform Harnesses
Information for Business Value

CONTENT FEDERATION FOR BUSINESS AGILITY: THREE STEPS TO GET STARTED

The business consequences are straight forward. Content federation enables organizations to cope with the ever-growing volume, velocity, and variety of digital information. Content federation becomes a tool for digital business design, a way for companies to harness multiple content silos and automate key business processes. Content federation provides companies with cost-effective ways to unlock content collections, leverage existing information resources, and address data privacy mandates.

The business case for content federation depends on operational insights: how best to streamline digital work. While individual companies have their own situations and constraints, getting started depends on three essential steps:

1. Analyze business operations and identify barriers to digital work. Pay particular attention to high-value activities that require multiple operational handoffs.
2. Follow the information flows. Conduct a content inventory to determine how content is being created and stored. Recognize where information is being accessed from different silos and content stores. Investigate how content is being organized and categorized.
3. Determine opportunities where content silos should be federated, migrated, or remain free standing. Assess enabling technologies and develop action plans for moving forward. Consider if and when content should be tagged by additional categories or metadata.

When deployed effectively, content federation provides the enabling technologies for simplifying and transforming business operations.

By leveraging federated content resources, companies can push ahead with their digital initiatives while remaining sufficiently agile to adapt to changing business situations. They can unlock content captured by multiple enterprise applications and harness the information for business value. By making it easy to integrate with various content repositories, companies can substantially reduce the cost, time and effort required to develop digital platforms that transform business operations.



FOLLOW US



www.asg.com

ASG Technologies is a global software company providing the only integrated platform and flexible end to end solution for the information powered enterprise. ASG is the only solutions provider for both Information Management and IT Systems and has over 3,500 customers worldwide. To learn more visit www.asg.com.

ASG Technologies | 1.239.435.2200 or 1.800.932.5536 | 708 Goodlette Road North, Naples, Florida USA 34102 | www.asg.com

© 2020 ASG Technologies Group, Inc.
All products mentioned are trademarks or registered trademarks of their respective holders.

wp-geoff-bock-federation_20200220en