Meet your Dodd-Frank recordkeeping compliance requirements

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Meet stringent Dodd-Frank Act requirements

On July 21, 2010, President Obama signed the Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA). The DFA, which consists of 846 pages, forms the basis of the US government's regulatory response to the financial crisis. Many consider it one of the most sweeping overhauls of financial regulation in the recent US history.

Dodd-Frank Act overview and implications for business

More formally known as the Dodd-Frank Wall Street Reform and Consumer Protection Act, the DFA attempts to fix many of the perceived shortcomings of the US financial system and address perceived gaps in the regulatory framework that came to light during the global financial crisis of 2008.

This legislation ushers in enormous and lasting changes that will introduce fundamental shifts in the legal, regulatory, and policy landscape, affecting the market and the economy. These changes will require you to address numerous business practices in a short period of time. They touch every aspect of our financial markets, from consumer credit to proprietary trading at financial firms, and from private fund registration and regulation to corporate governance at public companies.

The Act consists of sixteen distinct Titles on a wide variety of topics. Once implemented, the Act will significantly alter the US financial regulatory system. All financial institutions will be directly and materially affected by the Act's accompanying regulations, and non-financial institutions that use regulated financial products will also be indirectly affected. Additionally, the Act's amendments to Sarbanes-Oxley, and broad changes to executive compensation and corporate governance rules, will impact all US public companies and international companies doing business in the United States.

Title VII of the Dodd-Frank Act amended the Commodity Exchange Act (CEA) to establish a comprehensive new regulatory framework for swaps and security-based swaps. One of the key areas of this Act was the introduction of a recordkeeping requirement that mandated far stricter obligations of various market participants.

Specifically, Title VII states, "Pursuant to Part 45 of the CFTC's regulations, end-users are required to 'keep full, complete, and systematic records together with all pertinent data and memoranda' of each swap transaction in which they are a counter-party until the swap has been fully terminated for five years. Since financial instruments can last for many years, as in the case of long-term bonds, the aggregate retention period could conceivably extend up to 30 years and in some extreme cases even longer. The records may be kept in either in electronic format or in an original paper format, but organizations are required to keep the information immediately available and readily accessible. Specifically, the Dodd-Frank Act dictates that the "records of daily trading records of the swaps of the registered swap dealer and major swap participant must be maintained and that these records include but are not limited to "all related records (including related cash and forward transactions) and recorded communications, including electronic mail, instant messages, and recordings of telephone calls."

Make it easier to comply
The DFA requirement could be greatly simplified by summarizing it this way: all information handled by a major swap participant related to an executed trade must be stored and held for the duration of the transaction vehicle, in some cases for up to 30 years or longer, and upon request by the SEC or CFTC will be produced by said firm immediately in a readily accessible

fashion. The information request includes all relevant records associated with execution of any trade agreement and providing basis for the economic terms of a deal involving financial swaps and derivatives. It also covers any record stipulated by specific regulatory requirements for immutability and third-party access.

One of the challenges for organizations attempting to adhere to Dodd-Frank is that required data is typically scattered across dozens of different applications and systems across a financial services organization, often across multiple regions and time zones. Much of this structured information (RDBMS/database) is often kept in non-compliant databases that reside under custom applications that offer little or no controls for data compliance, recordkeeping, long-term retention, or defensible disposal.

These systems often lack critical audit and chain of custody controls to demonstrate that appropriate retention, preservation, and disposition requirements have been applied to essential data. In addition, unstructured data in the form of communication exchanges, audio, and other content associated with these trades are often completely segregated from core transaction systems, making it virtually impossible to align data around the thousands of transactions that occur on a daily business in a relatable and manageable fashion.

The specific issues below outline a series of complex system interactions and processes that have emerged as common business practices over the last decade—processes that can pose challenges for organizations that lack capabilities to deliver information required, when it is required.

- Relevant content must be readily accessible and immediately available to the regulator
- Multiple channels of communication must be included, such as email, IM, voice, database, and documentation, including pre-trade communications
- A wide variety of data and file formats is within the scope of the request
- Large numbers of existing content repositories and databases must be mined
- Relevant information must be associated with a unique swap identifier only made available after trade booking with information related to the trade
- Most communications and documents are not organized by swap identifier
- Information must be preserved on WORM (write once, read many) disks for five years beyond the life of the deal
- Information in any channel may be in any language

HP Autonomy has found that within each of these challenges several key issues are common:

- Systems are disconnected and often managed across different parts of the organization
- Existing repositories of information utilize very different technologies and contain a wide variety of file formats and database schemas
- Systems reside across multiple geographic regions
- Existing data is held in widely varying data formats
- Navigating internal infrastructure can be a challenge
- Locating relevant content, particularly in audio, IM, and email, is technologically difficult with traditional, structured data systems

The implications of non-compliance can be significant, including potential losses from sanctions and fines, litigation, burdensome eDiscovery costs, and serious systemic risk exposure. In addition, if comprehensive information is not assembled in a timely fashion when and if arising litigation occurs, your organization could incur a negative impact on brand and trust equity in the marketplace.

Move beyond traditional approaches
The demands of regulations such as Dodd-Frank immediately shine a light on the systemic complexity of traditional systems of record used to manage data. The substantial gaps that are inherent in these legacy systems must be extended to enable all related diverse unstructured data, including voicemails, instant messages, text, and emails to be maintained appropriately, as stipulated by the Act.

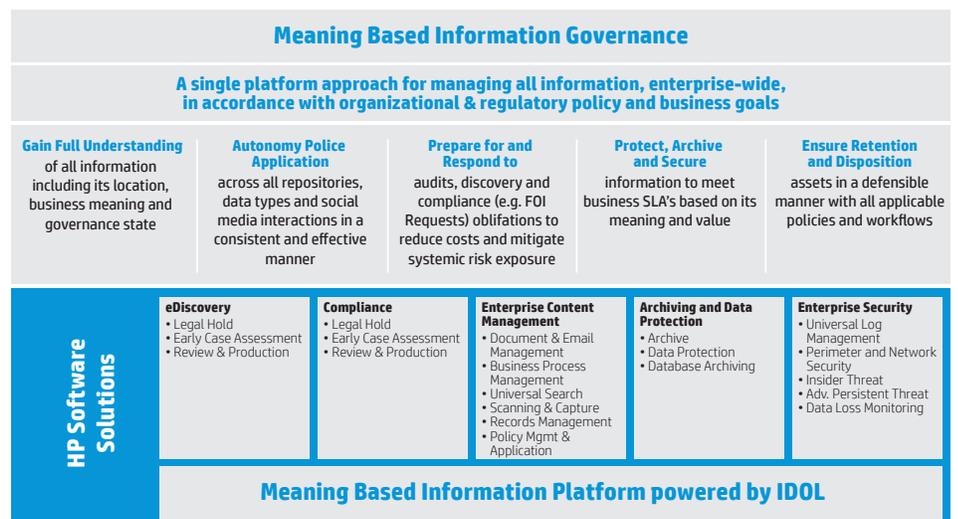Traditional approaches typically revolve around siloed systems that:

- Rely on costly and inefficient tape-based systems to store critical information
- Lack the necessary search and retrieval capabilities, especially as related to unstructured data assets
- Have the ability to restore hundreds of database snapshots, which are highly redundant to ensure comprehensive data retrieval
- Require additional resources to conduct the manual intervention to retrieve and assemble siloed data
- Require highly skilled, costly experts to assemble data from hard-to-use applications with complex user interfaces
- Include bloated application databases that result from data not being properly archived, resulting in slower application performance
- Require major hardware investments to meet the challenge of maintaining necessary performance and retrieval across larger and larger data stores

Understand all your information

The HP Autonomy meaning-based information governance framework consists of five core pillars, and is the industry's first comprehensive approach to effectively managing information—regardless of format, source, storage location, or data type—based on the meaning held within the information and its context among other pieces of information across the enterprise.

Using Autonomy's Meaning Based Information Governance solutions you can:

- Gain a full understanding of data regardless of source, format, location or language
- Automate policy application across all legacy and newly formed data repositories, including social media, in a consistent and transparent manner
- Prepare for and respond to audits, discovery, and compliance requirements in an efficient and timely manner
- Automatically classify unstructured information, eliminating the need for manual taggging
- Protect, archive, and secure information in compliance with Service Level Agreements and regulatory requirements
- Ensure proper data retention and disposal of assets in a fully compliant and defensible manner, regardless of the source repository or format of the data

Meaning Based Information Governance

A single platform approach for managing all information, enterprise-wide, in accordance with organizational & regulatory policy and business goals

| **Gain Full Understanding** of all information including its location, business meaning and governance state | **Autonomy Police Application** across all repositories, data types and social media interactions in a consistent and effective manner | **Prepare for and Respond to** audits, discovery and compliance (e.g. FOI Requests) oblifations to reduce costs and mitigate systemic risk exposure | **Protect, Archive and Secure** information to meet business SLA's based on its meaning and value | **Ensure Retention and Disposition** assets in a defensible manner with all applicable policies and workflows |

HP Software Solutions

eDiscovery	**Compliance**	**Enterprise Content Management**	**Archiving and Data Protection**	**Enterprise Security**
• Legal Hold • Early Case Assessment • Review & Production	• Legal Hold • Early Case Assessment • Review & Production	• Document & Email Management • Business Process Management • Universal Search • Scanning & Capture • Records Management • Policy Mgmt & Application	• Archive • Data Protection • Database Archiving	• Universal Log Management • Perimeter and Network Security • Insider Threat • Adv. Persistent Threat • Data Loss Monitoring

Meaning Based Information Platform powered by IDOL

A meaning-based approach to Dodd-Frank recordkeeping compliance

Over the past 15 years, HP Autonomy has worked with top investment banks and financial institutions to provide a variety of solutions based on a common meaning-based platform providing a differentiated approach. HP Autonomy is a global leader in software that processes human information, or unstructured data, including social media, instant messages, email, video, audio, text, and web pages. Autonomy's powerful management and analytic tools for structured information, together with its ability to extract meaning in real time from all forms of information regardless of format, delivers powerful capabilities for companies seeking to comply with the storage and reporting requirements of the Dodd-Frank Act.

As the pioneer of Meaning Based Computing (MBC), Autonomy applies MBC to all of its technology solutions to enable you to leverage systematic intelligence when dealing with traditional IT problems. Directly relevant to the Dodd-Frank Recordkeeping requirement, this capability has enabled Autonomy, now an HP company, to become the market leader in enterprise search, electronic data archiving, messaging supervision, automatic content classification and records management. All of these solutions are based on the Autonomy Intelligent Data Operating Layer (IDOL), which uniquely positions Autonomy to address the entire range of challenges presented by the DFA recordkeeping requirement.

HP Autonomy's approach to the DFA record keeping requirements is to capture, at the source, content as it enters the enterprise, automatically classify captured content based on the trade and unify the structured and unstructured data in a records management application that supervises the storage of electronic assets in the archive. This approach leverages IDOL's ability to understand the meaning of all information flowing through the organization, eliminating laborious manual upfront classification and processing of all information needed to respond in a timely fashionto meet regulatory requests for trade level information.

By utilizing a Meaning Based Computing approach to information management HP Autonomy has become the market leader in a range of areas, including:

- Records management
- Post-trade automation
- Multi-channel broker/dealer communication supervision
- Information archiving
- Cloud solutions for compliance and legal processes

HP Autonomy's approach to all the above areas is to utilize a common operating layer that allows solutions to be created based not on a model of your organization's operations, but rather upon a direct understanding of the information that flows through your organization.

**Complement and extend existing IT investments**
The Autonomy Dodd-Frank Recordkeeping (DFA) solution is designed to complement and extend existing IT investments in order to minimize both impact to existing infrastructure and time to deploy the solution. Its robust design enables the solution to consume and organize all data types, both structured and unstructured, regardless of location, format or language.

The Autonomy DFA solution leverages Autonomy IDOL's extensive connector framework to consume and automatically categorize unstructured data from virtually any source including audio, email, instant message (such as Bloomberg, Reuters, and MS Lync), as well as scanned documents. The solution also leverages HP Application Information Optimizer to extract and transform application/structured RDBMS data into searchable XML documents without any disruption to structured data repositories.

Autonomy DFA manages information sources and automatically categorizes diverse Dodd-Frank-related data, using Autonomy's content categorization engine, with Autonomy ControlPoint.Once categorized Autonomy ControlPoint organizes trade information into a folder hierarchy specific to financial transactions in Autonomy's robust records management solution

(TRIM) which is backed for Petabyte scalability by Autonomy's flexible, award-winning archive solution, Autonomy Consolidate Archive (ACA). Autonomy ControlPoint, TRIM and ACA all utilize the Autonomy IDOL Platform to index all content based on meaning and relevance for universal search and retrieval.

All information is managed per the established record management file-plan to establish the duration that content much be legally preserved, typically five years after trade maturity or one year after creation for audio content. Once information is legally allowed to be removed, TRIM provides the business with a defensible disposition process that ensures that not only Dodd-Frank related retention rules are enforces but also any rules related to jurisdiction and is fully capable of supporting any rules defined future legislation.

Autonomy Consolidated Archive
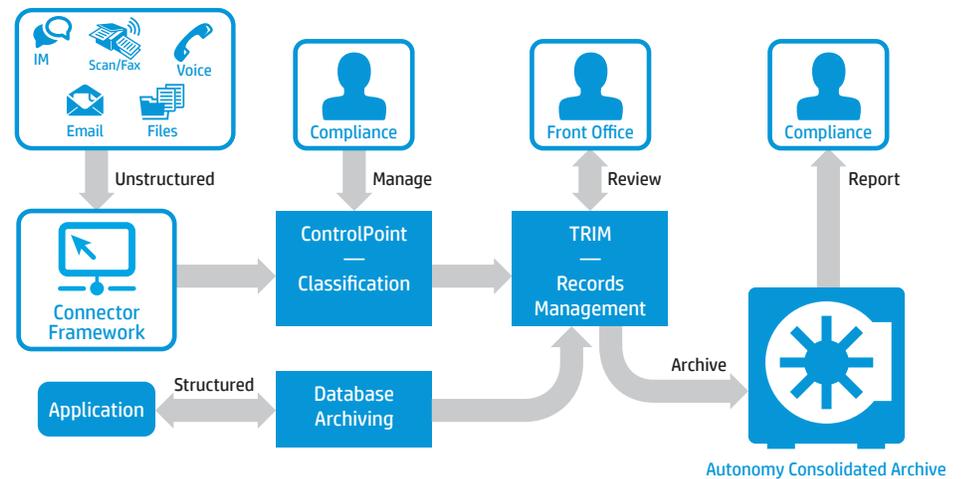
The Autonomy DFA solution, built on world-leading, proven technology, is scalable to meet high production demands and offers a range of flexible deployment otions. The solution supports on-premise, hybrid, and cloud deployments with thousands of banking and financial services customers and over 50 petabytes of highly sensitive information under management in the HP Autonomy cloud. It enables any organization to harness existing IT investments to deliver a seamless, adaptable solution that can meet and exceed the demanding requirements of the Dodd-Frank Act or any other regulatory policy that requires extensive transaction-centric, recordkeeping of diverse data types.

Enhance your approach to recordkeeping
The Autonomy DFA solution offers a range of advantages, including the following:

- Supports automated capture at the source for application/structured and unstructured content

- Supports over 1000 file formats including email, instant message, documents, audio and video

- Understands information regardless of language and supports speech to text of audio across a wide number of languages including Northern and Southern American, Western and Eastern European, and Asian languages and dialects

- Automatically classifies content into a financial transaction hierarchy

- Provides intelligent modeling of structured platforms or feeds to extract data on a scheduled or semi real-time basis

- Retains content in a compliant archive in a self-describing, form-independent manner in a non-rewriteable, non-erasable format required by Dodd-Frank Enables retention management and supports audited preservation and disposition at a granular, i.e. trade, level

- Provides intelligent search and discovery without complex applications or restoration to the source system

Leverage proven HP Autonomy solutions

The Autonomy Dodd-Frank Recordkeeping Solution leverages Autonomy's deep expertise in meaning-based computing and proven products within its Information Management Protect solution portfolio. The five key technologies utilized in the DFA solution include:

- Autonomy IDOL
- Autonomy ControlPoint
- HP Application Information Optimizer
- HP TRIM
- Autonomy Consolidated Archive

Address the new era of "human information"

Today, an explosion of data from new sources is challenging traditional methods for analyzing and governing information. Human information—such as emails, audio, video, social networks, blogs, call center conversations, and machine-generated sensor data—accounts for about 90 percent of all data, and is growing at 62 percent CAGR, which is three times faster than the structured data growth rate.

Beyond the sheer size of information volumes today, we know that it is within 'unstructured data' that all the interesting and important things happen. For instance, when processing information to uncover a crime, investigators look for incriminating emails. The remaining 10 percent of information lives in structured databases, such as: CRM, transactional/ERP applications, call detail records, customer purchasing history, trades, and click streams.

To succeed in the new era of human information, organizations must take a holistic approach, by addressing all of their enterprise data—both unstructured and structured. By automatically understanding the ideas and concepts expressed in the vast and varied sets of today's information, you can act more quickly on market opportunities and gain significant competitive advantage.

Understand the context of structured and unstructured data in real time

Autonomy IDOL provides a single processing layer that allows you to form a conceptual understanding of your information, both inside and outside the enterprise. Based on Autonomy's Intelligent Data Operating Layer (IDOL), the platform uses patented probabilistic algorithms to automatically recognize concepts and ideas expressed in all forms of information. Leveraging NoSQL (Not Only SQL) technology, IDOL enables enterprises to simultaneously understand and act upon documents, emails, video, chat, phone calls, and application data moving across networks, the web, the cloud, smartphones, tablets, and sensors.

With over 500 out-of-the box functions and 400 connectors, IDOL includes unique pattern-matching technology that understands the meaning of all enterprise information regardless of format, language, location, subject, or quantity and detects patterns, emotions, sentiments, intent, risks, and preferences as they happen.

A single view into all content also allows highly complex, in-memory analytics to be performed seamlessly across a variety of data types, repositories, and communication channels, to dramatically increase the value you can derive from your information.

- **Automatic Content Classification** – Classify information automatically using IDOL's content categories trained to recognize trade types, transactions, buyers and sellers
- **Enhanced connector framework** – Democratize data types with Autonomy's 400+ connectors, as well as new connectors for Social Content and Big Data
- **Intelligent Image and Document Recognition** – Document comparison for version management, signature identification, and data extraction rom complex data sources such as contracts, forms, productivity tools, and spreadsheets.
- **Advanced image processing algorithms** – Take video and sound information from devices, including enterprise voice-mail systems, in real time
- **Understanding audio** – Enable sophisticated audio recognition and analysis technology that processes spoken interactions based on their conceptual content, not just the way they sound

Autonomy ControlPoint

Autonomy ControlPoint provides visibility into information risk with a unique ability to understand the meaning of information. A centralized policy hub enforces governance control across distributed networks, an increasingly critical function given that systems like SharePoint are typically siloed throughout the enterprise. With ControlPoint, you can facilitate critical governance tasks while drastically reducing prohibitive storage costs through duplicate detection, storage optimization, and the management of content in place. With ControlPoint, you can apply a single set of policies across systems including legacy data, to enforce comprehensive control.

ControlPoint works transparently with enterprise content sources to automate compliance across 400+ repositories including Microsoft SharePoint, EMC Documentum, FileNet, Lotus Notes, WorkSite, and file systems. Organizations can understand content in over 1,000 different file formats, including multichannel communications, audio, and video files.

ControlPoint leverages the power of IDOL to increase visibility and control and deliver the following capabilities:

- Creates one consolidated enterprise-wide index
- Automates compliance processes
- Secures and manages information in-place in native repositories versus moving or copying
- Enforces control across distributed systems and networks including SharePoint and ECM platforms
- Enables a single set of policies to be applied across systems including legacy data
- Accesses content stored in other repositories

HP TRIM

Designed for corporate and enterprise organizations, HP TRIM provides scalable enterprise document and records management capabilities that simplify the capture, lifecycle management, security, and access to information to enable you to provide authoritative records of business activities, while ensuring transparent, policy-based lifetime management across your information.

HP TRIM helps you reduce the risk of noncompliance with legislative and regulatory requirements while increasing security, data integrity, productivity, and accountability. HP TRIM incorporates over 25 years of information management expertise into a comprehensive, out-of-the-box software solution, providing document and records management, email management, web content management, imaging, workflow, and document-centric collaboration to organizations around the world.

HP TRIM searches and retrieves metadata and content for a single view of your information in its business context.

HP TRIM provides a wide range of advantages, including:

- Unique analytical capabilities understand what is contained in information in real time
- Access, manage, and process over 1,000 data types including audio and video
- Manage records in place without the need to copy or transfer data from existing locations
- A consolidated, enterprise wide index provides conceptual and keyword search
- Automatic classification and clustering creates and extends records management file plans and taxonomies
- Simple implementation and execution of retention and disposition schedules
- Integrated electronic and physical records management, including warehouse, barcoding, and RFID
- Secure content preservation for records during/prior to disposition or while subject to legal hold
- Seamless connectivity with on-site and hosted email messaging and content archives
- Seamless integration with desktop applications provides automated user guidance for content categorization
- Military-grade security, US DoD 5015.02-STD Ver. 3 (including chapters 2, 3 and 4) certification, and Australia's VERS, ISO 15489

HP Application Information Optimizer

HP Application Information Optimizer helps control the growth of mission-critical databases by automating the migration or retirement of data while preserving its business value and meeting information governance requirements. Data can be relocated to a separate online database for fast, transparent access, or to standards-based XML or CSV documents for long-term retention based on retention rules and policies that align with the business. In the Autonomy Dodd-Frank Recordkeeping Solution application information is extracted and indexed directly from the database, declared appropriately per the record management file-plan within TRIM using standards-based XML which is backed by the Autonomy Consolidated Archive.

HP Application Information Optimizer includes an integrated set of components that facilitate design, deployment, and ongoing management of archiving processes throughout the lifecycle of applications and data. Due to the changing nature of front and middle office application databases this provides the vital capability of managing the mapping of application data to the archive with minimal maintenance overhead.

Whether an organization is running applications on Oracle, Microsoft SQL Server, Sybase, DB2, or open standards JDBC environments, HP Application Information Optimizer offers the rich set of capabilities required to control and manage database growth and apply governance best practices.

Meaning-based archiving for long-term compliance and standards-based data access

Meaning-based archiving gives users the option to archive data from the production or archive databases to an industry-standard XML or CSV format. Automatic migration of data to XML/CSV documents helps achieve database and application independence, and offers long-term viability of the archive, while complying with industry-specific regulations that require data to survive longer than the originating applications. This option encapsulates all relevant reference data with the transaction to make sure that the archive can "stand alone" (for example, customer-specific data elements such as name, address, and contact information are archived along with financial transaction sell orders).

Benefits

- Enables critical data to survive longer than the originating applications or databases
- Assists in meeting industry-specific compliance requirements, such as Dodd-Frank, for long-term data retention
- Deploys without costly, error-prone scripting and SQL coding
- Accelerates application retirement processes to shorten time to cost savings
- Makes sure that both production and archive data are highly available
- Scales to meet needs of largest and most complex enterprise database applications
- Provides long-term data retention solution for production databases
- Facilitates business reporting and eDiscovery of structured data

Easy to configure, the HP Application Information Optimizer software helps meet business requirements and unique characteristics of large-scale database environments while handling massive data volumes with integrity. Production and archived data are kept in a consistent

state because data is either archived as complete business transactions or not archived at all. With retention policies being enforced for the first time, initial archiving runs can involve a huge amount of data. Standard archive jobs can be run for ongoing operations. Encrypted passwords and detailed audit trails provide security for archiving operations support.

Autonomy Consolidated Archive

Autonomy Consolidated Archive (ACA) provides a scalable, unified content archive that controls and manages electronically stored information and assists with litigation preparedness. Using probabilistic modeling and advanced pattern matching to form a conceptual and contextual understanding of electronically stored information (ESI), ACA delivers advanced functions such as automatic classification, end-to-end eDiscovery, and advanced rich media capabilities that allow businesses to intelligently archive assets such as VoIP, voicemails, and video conferences—all capabilities that cannot be achieved using traditional approaches.

ACA's ability to understand information in any format, repository, or language allows businesses to perform advanced analytics and draw intelligence from across the enterprise in real time. Businesses can eliminate the resource drain of pre-processing data to combine information types, making it possible to derive insight from operational and archived data, both structured and unstructured.

Meaning-based search and analytics allow businesses to make decisions and act on information while it is current. Advanced search and analytics result in significant cost savings compared to alternative approaches, since the value of understanding the information drives shorter retentions, accurate records schemes, and streamlined processing and review during eDiscovery and regulatory investigations

ACA aligns with the Electronic Discovery Reference Model (EDRM) to enable early case assessment, which allows legal teams to eliminate the costly and risky step of collection and reprocessing content to a secondary platform. Autonomy's leadership in information governance, ability to understand meaning, and broad set of legal and regulatory modules set Autonomy Consolidated Archive apart from all other products.

Choose from flexible deployment options

The technology comprising Autonomy's DFA Recordkeeping Solution is available as a cloud, onsite, or hybrid option. This allows complete flexibility in determining the optimal solution for the organization to ensure the technology maps to in-house best practices, time to deployment, and capex/opex cost models.

Proven, secure, enterprise-class cloud computing

A private cloud approach allows for a fast delivery timeline and minimizes the impact on existing IT infrastructures within the organization. The Autonomy private cloud is composed of regional, highly secure computing centers that are built using HP's Converged Cloud technology and deployment best practices. As the leading provider of cloud-based archiving, Autonomy already provides compliance-grade archiving to the world's leading investment banks, financial institutions, and major global financial regulators. With over 50 petabytes of content under management, HP Autonomy operates the largest private cloud in the world.

Why choose the HP Autonomy cloud?

The HP Autonomy private cloud offers the following differentiating capabilities that contribute to a superior deployment experience:

- Infinitely scalable design
- True grid computing with linear scale
- Dedicated Disk for each customer
- Unique Split-Cell storage design
- Four copies stored across two data centers
- Hyper-secure, WORM storage
- Built-in high availability and fault tolerance
- De-duplication and metadata enrichment
- Division, cost center, retention, and hold order capabilities
- Meaning-based computing platform

Where to start

It is critical to first assess how Dodd-Frank Act regulations will affect your particular recordkeeping and compliance requirements. A mapping of unstructured and structured data repositories and application databases will reveal unique requirements and how meaning-based classification, records management and archiving can best ensure that you are able to meet and exceed the specific recordkeeping demands of the DFA. Optimal storage, retrieval, and analytic requirements should be considered to determine the best deployment option, ranging from cloud-based approaches that minimize CAPEX and often deliver maximum business agility, to hybrid and premise-based approaches that can minimize latency and ensure you are compliant with enterprise security and access SLAs.

Contact Autonomy to meet with an Autonomy DFA Subject Matter Expert to understand how we can help you proactively address your DFA requirements today. More information about Autonomy's DFA solution can be found at autonomy.com/Dodd-Frank.

About HP Autonomy

HP Autonomy is a global leader in software that processes human information, or unstructured data, including social media, email, video, audio, text and web pages, etc. Autonomy's powerful management and analytic tools for structured information together with its ability to extract meaning in real time from all forms of information, regardless of format, is a powerful tool for companies seeking to get the most out of their data. Autonomy's product portfolio helps power companies through enterprise search analytics, business process management and OEM operations. Autonomy also offers information governance solutions in areas such as eDiscovery, content management and compliance, as well as marketing solutions that help companies grow revenue, such as web content management, online marketing optimization and rich media management.

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20130304_RL_WP_HP_Dodd_Frank_Recordkeeping_Compliance