

# Meet stringent Dodd-Frank Act requirements

# The Act's amendments to Sarbanes-Oxley

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

As one of its goals, the DFA attempts to fix many of the perceived shortcomings of the U.S. financial system and address perceived gaps in the regulatory framework that came to light during the global financial crisis of 2008. The legislation ushers in enormous and lasting changes that will introduce fundamental shifts in the legal, regulatory, and policy landscape, and impact the market and the economy. These changes will require organizations to address numerous business practices in a short period of time. These changes 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.

#### What's in the DFA?

The Dodd-Frank Act consists of 16 distinct titles on a wide variety of topics, and once fully implemented the Act will significantly alter the U.S. 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, impacts all U.S. public companies and international companies doing business in the United States.

Title VII of the Dodd-Frank Act amends 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.

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.

#### Make it easier to comply

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, and 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 trades are often completely segregated from core transaction systems, making it virtually impossible to align data—in a relatable and manageable fashion—around the thousands of transactions that occur on a daily business.

The 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 after the life of the deal
- Information in any channel may be in any language

HP 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 used to manage data. The substantial gaps 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 generate large volumes of highly redundant data that are difficult to search
- 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

The HP Information Governance framework provides a comprehensive approach to help you effectively manage information—regardless of format, source, storage location, or data type—with the ability to gain conceptual and contextual intelligence from information across the enterprise.

#### **Understand all your information**

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With HP 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 tagging
- 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



### A proven approach to Dodd-Frank recordkeeping compliance

Over the past 15 years, HP has worked with top investment banks and financial institutions to provide a variety of information governance solutions. As a pioneer in data analytics, HP applies its ability to understand virtually all types of information to all of its technology solutions, allowing customers to leverage systematic intelligence when dealing with traditional IT problems. Directly relevant to the Dodd-Frank Recordkeeping requirement, these capabilities have enabled us to become the market leader in enterprise search, information archiving, messaging supervision, automatic content classification, and records management. For this reason, our solutions are uniquely able to help you address the entire range of challenges presented by the DFA recordkeeping requirement.

HP's approach to meeting the DFA recordkeeping requirements is to capture—at the source—content as it enters the enterprise, automatically classify the 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 HP's ability to provide in-depth knowledge and visibility across all information flowing through the organization, and eliminates laborious manual upfront classification and processing needed to respond in a timely fashion to meet regulatory requests for trade-level information.

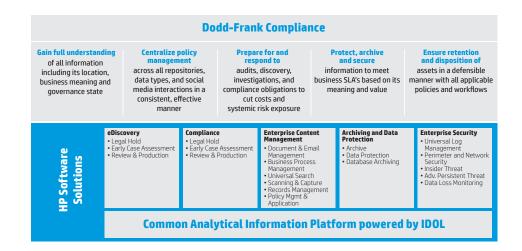
HP Information Governance solutions continue to be relied upon by the largest global organizations and have become the market leader in:

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

HP delivers a portfolio of modular solutions that help you access and understand human- and computer-generated information in context—without bias to repository or location—so you can organize and control this data with a centralized policy engine, and intelligently manage and take action upon data according to the varying needs across your organization.

#### Complement and extend existing IT investments

The HP Dodd-Frank Compliance solution is designed to complement and extend existing IT investments to minimize both the impact to existing infrastructure and time to deploy the solution. Its robust design enables the solution to consume and organize most data types, both structured and unstructured, regardless of location, format, or language.





This solution leverages an 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 Structured Data Manager to extract and transform application/structured RDBMS data into searchable XML documents without any disruption to structured data repositories.

HP ControlPoint helps you manage information sources and automatically categorize diverse Dodd-Frank-related data. Once categorized, ControlPoint organizes trade information into a folder hierarchy specific to financial transactions in HP's robust records management solution, HP Records Manager. HP ControlPoint, HP Records Manager, and HP Consolidated Archive all utilize a patented next-generation platform, HP IDOL (Intelligent Data Operating Layer), to access, understand, and analyze massive volumes of diverse information.

We enable you to manage all information per the established record management file-plan to establish the duration that content must 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, HP Records Manager provides a defensible disposition process to ensure that not only Dodd-Frank-related retention rules are enforced, but any rules related to jurisdiction. And Records Manager is fully capable of supporting any rules-defined future legislation.

Built on world-leading, proven technology, the Dodd-Frank Compliance solution is scalable to help you meet high production demands, in a range of flexible deployment options. With a track record that includes thousands of banking and financial services customers, we can help you to harness existing IT investments so you can deliver a seamless, adaptable solution that meets and exceeds 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 HP solution for DFA compliance offers a range of advantages, including the following:

- Supports automated capture at the source for application/structured and unstructured content
- Supports hundreds of file formats including email, instant message, documents, audio, and video
- Understands information from most languages 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, as required by Dodd-Frank
- Enables retention management and supports audited preservation and disposition at a granular level, e.g., trade level
- Provides intelligent search and discovery without complex applications or restoration to the source system

#### Rely on proven HP solutions

Five key HP technologies comprise the Dodd-Frank Compliance solution:

- HP IDOL
- HP ControlPoint
- HP Structured Data Manager
- HP Records Manager
- HP Consolidated Archive

**Human information** 

such as emails, audio, video, social networks, blogs, call center conversations, and machinegenerated sensor data accounts for about

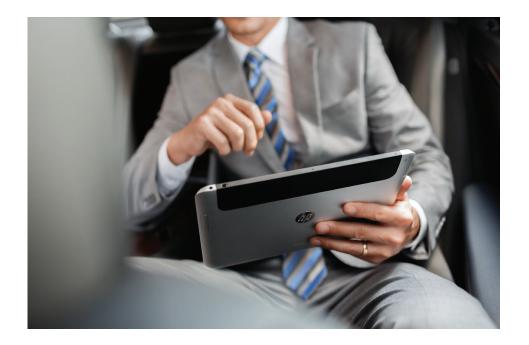
**90% of all information**and is growing at

**68%** CAGR

which is

3x faster

than the growth rate of structured data.



## 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% of all information, and is growing at 62% CAGR, which is three times faster than the growth rate of structured data.

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 clues in the form of incriminating emails, phone recordings, or even social media posts. The remaining 10% of information lives in structured databases such as CRM systems, 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

The HP IDOL analytics engine allows you to form a conceptual understanding of your information, both inside and outside the enterprise. Based on HP IDOL, the platform uses patented probabilistic algorithms to automatically recognize concepts and ideas expressed in all forms of information. Using 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 hundreds of out-of-the box functions and connectors, IDOL includes unique pattern-matching technology that allows you to understand the value of virtually all enterprise information regardless of format, language, location, subject, or volume, 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 across a wide range of content categories trained to recognize trade types, transactions, buyers and sellers
- Enhanced connector framework: Democratize data types with hundreds of connectors
- Intelligent image and document recognition: Document comparison for version management, signature identification, and data extraction from 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

#### **HP ControlPoint**

HP ControlPoint helps you achieve information compliance by making it possible to not only access information, but also understand, classify, and take action on enterprise content. 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. You can also 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 hundreds of repositories including Microsoft SharePoint, EMC Documentum, FileNet, Lotus Notes, WorkSite, and file systems. Organizations can understand content across most file formats, including multichannel communications, audio, and video files.

ControlPoint increases visibility and control so you can:

- Create one consolidated enterprise-wide index
- Automate compliance processes
- Secure and manage information in-place, in native repositories, versus moving or copying
- Enforce control across distributed systems and networks including SharePoint and ECM platforms
- Apply a single set of policies across systems including legacy data
- Access content stored in other repositories

#### **HP Records Manager**

Designed for corporate and enterprise organizations, HP Records Manager 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 Records Manager helps you reduce the risk of noncompliance with legislative and regulatory requirements while increasing security, data integrity, productivity, and accountability. It 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.

# Over **25** years

of information management expertise into a comprehensive, outof-the-box software solution...



Records Manager searches and retrieves metadata and content for a single view of your information in its business context. You gain a wide range of advantages, including:

- Unique analytical capabilities understand what is contained in information in real time
- Access, manage, and process most 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, U.S. DoD 5015.02-STD Ver. 3 (including chapters 2, 3 and 4) certification, and Australia's VERS, ISO 15489

#### **HP Structured Data Manager**

HP Structured Data Manager 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. Using our Dodd-Frank Compliance solution, application information is extracted and indexed directly from the database, declared appropriately per the record management file-plan within HP Records Manager using standards-based XML, in conjunction with HP Consolidated Archive.

HP Structured Data Manager 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.

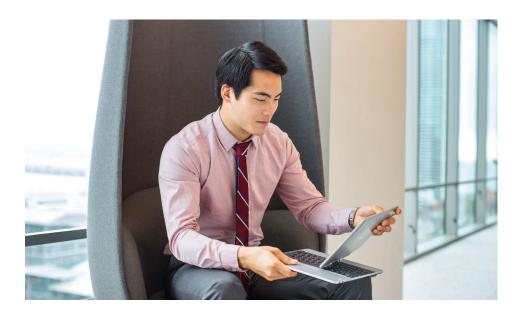
Whether you are running applications on Oracle, Microsoft SQL Server, Sybase, DB2, or open standards JDBC environments, HP Structured Data Manager offers the rich set of capabilities required to control and manage database growth and apply governance best practices.

Next-generation archiving for long-term compliance and standards-based data access Structured data archiving and application retirement give 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. A few of the benefits available with HP Structured Data Manager:

- Enables critical data to survive longer than the originating applications or databases
- Assists in meeting industry-specific compliance requirements, such as Dodd-Frank, for longterm 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, HP Structured Data Manager software helps meet business requirements and unique characteristics of large-scale database environments while handling massive data volumes with integrity.

Easy to configure, the HP Structured Data Manager 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.



#### **HP Consolidated Archive**

HP Consolidated Archive (HPCA) 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), HPCA delivers advanced functions such as policy management, eDiscovery, and advanced search capabilities that allow you to intelligently archive a wide array of assets, including email, files, SharePoint, IM, and social media.

Our ability to understand information in almost any format, repository, or language allows you to perform advanced analytics and draw intelligence from across the enterprise in real time.

Our ability to understand information in almost any format, repository, or language allows you to perform advanced analytics and draw intelligence from across the enterprise in real time. You 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.

Advanced search and analytics allows you to make decisions and act on information while it is current, and results 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.

HPCA 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. HP's leadership in information governance together with a broad set of legal and regulatory modules set HPCA apart from all other products.

## Flexible deployment options

HP solutions are available in cloud, onsite, or hybrid deployments. This allows complete flexibility in determining the optimal solution for your 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 enables a fast delivery timeline and minimizes the impact on existing IT infrastructures within the organization. The HP private cloud is composed of regional, highly secure computing centers that are built using HP's own cloud technology and deployment best practices. As the leading provider of cloud-based archiving, HP provides compliance-grade archiving to the world's leading investment banks, financial institutions, and major global financial regulators, with over 60 petabytes of content under management.

#### Why choose the HP cloud?

The HP private cloud offers a range of 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
- Built-in high availability and fault tolerance
- De-duplication and metadata enrichment
- Division, cost center, retention, and hold order capabilities
- Hyper-secure WORM storage



#### 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 classification, records management, and archiving can best ensure that you are able to meet and exceed the specific recordkeeping demands of Dodd-Frank. Optimal storage, retrieval, and analytics requirements should be considered to determine the best deployment option, ranging from cloud-based approaches that minimize capital expenditures 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 HP to meet with one of our experts and understand how we can help you proactively address your DFA requirements today.

Learn more at

http://autonomy.com/dodd-frank

Sign up for updates hp.com/go/getupdated



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