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For Financial Services and Regulated Industries

How Bloomberg's Cloud Tackles Information Management: Social Media, Voice, Dodd-Frank and More

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The growth of data volumes and new formats such as social media and voice, combined with major changes in the regulatory environment, are creating urgent data management challenges for financial services firms and other enterprises in highly regulated industries. Unfortunately, most legacy IT infrastructures were not designed to meet the demands of this new environment and many companies are struggling to adapt, not just in terms of their systems, but also with their compliance policies and procedures. IT executives at such companies are under the gun

to quickly upgrade their infrastructures and processes to address new compliance challenges, such as social media, voice archiving and Dodd-Frank voice record-keeping mandates. For many organizations, the answer to today's most pressing data management problems can be found in the cloud. Here's why.

IT leaders in financial services and related highly regulated industries are facing a challenging new landscape that is precipitating a growing urgency to address how their organizations create, store and manage data on an institutional and global scale. Think about how dramatically the world has changed in just the past five years. The financial crisis of 2008 ushered in an era of much greater scrutiny and regulatory oversight, embodied by legislation such as the Dodd-Frank Act in the U.S., which holds financial services organizations accountable to a much higher degree of transparency in their internal communications and in their dealings with customers, partners and regulators.

These transformative changes are forcing IT decision-makers to address some of the most important questions they have ever faced, questions that may define how they manage information for many years to come, including:

- How do I address new data formats such as social media and mobile, in terms of both supporting the massive data volumes they are generating and in setting up the right policies and procedures for information governance?
- How do I adapt and/or alter my infrastructure to address the speed, volume and response times required to enable the big data initiatives that are becoming critical to our business?
- Now that regulators have included voice as a regulated data type, how can I ensure that my enterprise information archiving solution is capable of dealing with all of the issues involved in retaining, archiving, accessing and reporting on recorded voice?
- As I look to the vast potential of cloud solutions to address these challenges, how do I ensure that my global deployments will meet data privacy requirements worldwide?
- How do I ensure that my data will be secure when moving to the cloud, and how do I ensure that I am working with a cloud partner that has the requisite expertise, experience and stability to trust with my most vital information assets?

In addition to changes in the regulatory environment, this transformation in data management is being driven by a combination of technology advances and dramatic shifts in the way people deploy technology. The rise of social media and the rapid proliferation of powerful mobile devices such as smartphones and tablet computers have opened up new channels of communications among customers and employees, spurring new challenges such as the bring-your-own-device (BYOD) trend.

While these new channels can be extremely valuable in enhancing productivity and enabling business agility for financial services firms, they can also create nightmarish challenges for the IT departments that have to manage them and the compliance officers that have to account for them. Organizations must now be able to save, store, archive, protect and access a much broader

and more challenging class of information than ever before. This includes not only emails, texts and files, but also social media — blog comments, tweets, instant messages, Facebook posts — and voice data of all types, including voice recordings.

Technology advances and innovations go well beyond social media. Organizations are creating more data across the board than ever. According to one study, we are now generating as much data every 10 minutes as was generated throughout the entire history of humanity through 2003.¹ Beyond this, the amount of data being created is doubling every year, and 90% of this data is of the unstructured type that makes up emails, social media and videos.²

Add to this the growth of virtualization and cloud computing, the possibilities enabled by big data analytics, and the advances in speed and performance in financial trading systems, and you end up with a technology environment that is absolutely primed for upheaval. IDC, in fact, has characterized the combination of mobile computing, cloud services, social networking and big data analytics as the IT industry's next dominant platform, accounting for 80% of IT spending growth between now and 2020.³

Advantages in the Cloud for Enterprise Data Management

Most legacy data management infrastructures are ill equipped to handle the new challenges facing financial services firms and are groaning under the weight of trying to manage new sources of data along with existing enterprise data. They are struggling on a variety of levels — speed, application performance, management complexity and scalability, to name a few. As data creation continues to grow exponentially, infrastructure deployments that support regulatory compliance and deliver enterprise data management efficiencies are becoming much more difficult to achieve and much more expensive to manage and scale. The sooner IT leaders act to address these challenges, the more successful they will be in meeting the compliance and data management requirements of this new era.

For many IT leaders, the logical answer to this burgeoning data management challenge is to look to a cloud services provider for the solution. Why? The right cloud solution can provide an elegant answer to many of the issues involved in reconfiguring technology infrastructures and addressing the critical components of enterprise compliance and data management. Turning enterprise data management over to a trusted cloud provider enables organizations to:

- **Immediately upgrade their infrastructure** without having to make a significant upfront capital investment.
- **Lower total cost of ownership (TCO)** with a manageable, highly predictable and easily scalable cost structure.
- **Deploy a flexible solution** that is capable of quickly adapting to changing regulatory requirements.

¹ [“Big Data or Too Much Information?”](#) Smithsonian, May 7, 2012

² [“Extracting Value from Chaos,”](#) IDC, June 2011

³ [“IDC Predicts 2012 Will Be The Year of Mobile and Cloud Wars as IT Vendors Vie For Leadership While the Industry Redefines Itself,”](#) IDC, Dec. 1, 2011

- **Eliminate the data silos** that are often a roadblock to the consistent implementation of compliance processes across all regulated content.
- **Redeploy valuable IT resources** to address more strategic initiatives that could help to grow organizational revenues and enhance profitability.
- **Protect data in a secure environment** that deploys best-of-breed protection, archiving and redundancy to ensure the integrity and confidentiality of data.

The challenge, until now, has been in identifying a cloud supplier with the robust technology infrastructure, financial services experience, reputation for ironclad security and deep industry knowledge that gives IT leaders unquestioned confidence in the provider's ability to manage the organization's most important asset. The launch of Bloomberg's cloud, supported by an organization already deeply embedded in nearly every financial services company's most strategic operations, has changed the paradigm and given IT decision-makers in regulated industries the opportunity to work with a trusted provider that is already a major partner for the most demanding enterprises in the world.

What to Look for in an Enterprise Data Management Solution

In financial services or any other regulated industry, it is imperative that IT leaders get their enterprise data under control. The risks of noncompliance are just too great, and the expenses involved in electronic discovery are skyrocketing — not even considering the specter of litigation losses that impact finances and cause serious damage to the company's brand. According to one study, e-discovery costs can range up to \$30,000 for each gigabyte, which can run up to a staggering fee if lawyers can't find what they are looking for.⁴ Regulators — including the SEC, FINRA, the CFTC, the FCA/PRA in the U.K. and the U.S. DOJ — are also coming down hard on firms for failing to maintain proper control of their data, in particular recording-keeping of unstructured data, with companies that have failed to produce the proper records seeing fines and legal settlements into the billions of dollars.

The strictures imposed by Dodd-Frank legislation are adding to the sense of urgency for financial services firms. Enterprises now have to be able to reconstruct a complete derivatives trade for the CFTC in just 72 hours — including all pre- and post-trade communications. This means all communications, including email, voice, instant messaging and other forms now have to be digitized, tagged and stored to achieve compliance. And those digital recordings — along with the various tweets, IMs, texts and other communications spread throughout the organization (even those created on employees' cell phones) — must not only be collected, digitized, tagged and stored, they must also be backed up and made easily accessible in response to a regulatory or legal request, often at a moment's notice. And at some point in the lifecycle, each piece of data must be archived and, eventually, destroyed in a legally defensible manner at a proscribed point in time.

One of the key factors for IT professionals in considering enterprise data management solutions is to make sure that the technology is in place to allow the organization to apply best practices enterprisewide to all data — including social media and recorded voice. Today's data management

⁴ "E-discovery costs: Pay now or pay later," Inside Counsel, May 23, 2012

solutions must ensure that all enterprise data is properly tagged, stored in a cost-efficient manner, subject to consistent policy management and enforcement, and destroyed when required. Solutions must also enable organizations to access data with the speed and performance necessary to remain compliant with regulatory mandates and avoid potentially massive expenses and litigation losses related to e-discovery.

Focusing on management of data across the global enterprise is particularly critical as a foundation for big data analytics. All of the unstructured data being created throughout the enterprise and by consumers on social media can be used to enhance business services and add significant value to the customer experience. But one of the challenges in managing all of that unstructured content globally is abiding by all of the prevailing regional regulations across all corporate communications and content, including email, social media, IM files and documents. To enable big data analytics, IT executives need to deploy a solution such as Bloomberg Local Vault, which is capable of supporting various regional and national regulations governing data transmission and storage, as well as large-scale analytics.

Another important factor is managing the costs associated with this potential undertaking. As noted, the amount of data being produced in financial services firms is growing at an astounding rate, with no let-up in sight. Without the proper system in place to manage this data, the potential costs can quickly spiral out of control. In addition, because of stricter compliance and e-discovery requirements for producing information, many of the legacy archiving solutions in place — particularly any using tape formats — are woefully inadequate and must be replaced or upgraded. Turning to a cloud-based service can reap dramatic benefits in TCO: According to IDC, a midsize financial services firm can gain up to 45% in savings over a three-year period when using a cloud-based archiving solution as opposed to an on-premises solution.⁵

Application performance is another important consideration driving the need for new ways to address enterprisewide data management. Within most legacy IT environments, disparate systems and applications have proliferated, meaning that data is being created in different formats, on different media, in a wide range of physical locations. This rapid proliferation of data is not only making it more difficult to apply and enforce consistent policies among all these disparate systems, it is also often impacting the performance of legacy infrastructures, slowing down performance of mission-critical applications. By moving the responsibility of data management to the cloud and consolidating it in one place for the entire enterprise, IT has the opportunity to refocus legacy IT resources in a way that not only makes economic sense, but can also deliver immediate performance improvements — without requiring a concurrent investment in massive hardware and software upgrades.

Assessing the Impact of Bloomberg in the Market

Moving enterprise data management to a cloud services provider is as important a decision as an IT leader can make. The significant benefits of making that move must be accompanied by assurances of integrity and performance, scalability, agility, deep industry knowledge and ironclad security. As noted by IDC, “When moving critical functions such as compliance and e-discovery to a cloud provider, financial services firms must place paramount importance

⁵ “[Building the Case for Moving Compliance, eDiscovery and Archives to the Cloud](#),” IDC, June 2011

on choosing a service provider who has vertically integrated knowledge, legal and compliance competencies, security domain expertise and a strong focus on customer service. Moreover, the reputation of the service provider must be evaluated and their service capabilities and specialized domain expertise examined.”⁶

As such, Bloomberg has garnered significant attention as a provider of cloud-based enterprise data management services, offering a solution that has been adopted by more than 600 enterprises globally. Bloomberg initially entered the market in 2010 with Bloomberg Vault, to leverage the company’s domain expertise in electronic messaging, which encompasses more than 220 million daily messages and 65 billion archived messages. The cloud-based service now comprises a complete end-to-end solution for enterprise data management, archiving, compliance, policy management and e-discovery. Several key factors differentiate Bloomberg Vault from any other cloud-based service on the market, specifically:

- **Comprehensive, all-inclusive solution:** Bloomberg Vault provides an end-to-end solution that consolidates compliance processes, legal search and retention management into a single system, which eliminates the problem of managing different platforms across the enterprise. Because it is cloud-based, it mitigates the need for upfront capital expenditures and is easy to scale for growing data storage and management requirements. A single administrative console enables consistent enforcement of retention policies and legal holds across all message types. All content is uniformly indexed and retrieved by Bloomberg Vault, simplifying the rapid accessibility of data — even archived data — for compliance and e-discovery requests.
- **Meets global data privacy demands with Local Vault:** The global infrastructure required to support a cloud-based service of this type is massive and requires a sizable investment in infrastructure and specialized expertise for any company entering the market. Bloomberg has the experience of building and managing the world’s largest private network across more than 120 international data center sites, and Bloomberg Vault’s services are delivered on this network. All Bloomberg customers are guaranteed real-time business continuity and data recovery capability. Bloomberg Vault’s WORM-enabled compliant infrastructure is designed to keep archived data in a high-availability state by replicating it across geographically dispersed data centers. With Bloomberg Local Vault, organizations can enable data archiving policies to be configured at the employee level to abide by prevailing regional regulations across all corporate communications and content. With its network of secure, globally linked local data centers, Bloomberg Local Vault allows for in-region or in-country archiving, along with in-country secure data transfer, data storage, and instant search and analytics.
- **Core competencies in providing uninterrupted uptime and strict data security:** Financial services firms already rely upon Bloomberg to deliver uninterrupted uptime and ironclad security for their most critical and sophisticated trading applications. The same expertise and technologies that have been applied to the delivery of services through the ubiquitous Bloomberg terminals have been applied to the Bloomberg Vault cloud-based

⁶ Ibid, footnote No. 5

solution for enterprise data management. The Bloomberg network can scale up to more than 2,000 messages sent per second, and all access is via biometric multifactor security. Bloomberg Vault conducts an annual SSAE-16 SOC security audit by Ernst & Young to demonstrate best-in-class security processes to clients.

- **Support for all of your key initiatives, including Dodd-Frank compliance:** You can manage all of your data from a single location while still supporting all of the key initiatives that are driving today's businesses, such as social media and BYOD. Biometrically authenticated, authorized users can manage an organization's entire compliance workflow, from updating user accounts to customizing retention policies using a broad range of devices, including mobile devices such as tablets. Bloomberg Vault also provides a single platform to manage all of the data archiving and management challenges engendered by Dodd-Frank legislation, including voice archiving and social media, which would otherwise severely test the limits — and limitations — of existing legacy solutions.
- **Expert knowledge of financial services and related highly regulated markets:** One of the big challenges for financial services firms is the constantly evolving landscape within the regulatory and e-discovery environments. Dodd-Frank, for example, was passed in the summer of 2010, yet many of the specific compliance proscriptions are still being defined. One of the biggest advantages of working with Bloomberg is that its entire business rests on its deep financial services expertise and its ability to react quickly to every change in the regulatory environment, however slight. As an example, enterprises using Bloomberg Vault can request SEC, FINRA, and CFTC 'attestation letters' to demonstrate record-keeping compliance.
- **Existing, deep-rooted relationships within the financial services industry:** Bloomberg's technology is already deeply embedded within virtually every financial services firm. These companies already trust Bloomberg with their most important mission-critical applications. Extending that same trust to enterprisewide data management is really just a short step. With any other cloud supplier, it would be a giant leap.

Conclusion

When it comes to the management of enterprise information, financial services companies and firms in other highly regulated industries are facing a perfect storm of challenges. Just as the rules for compliance and e-discovery are tightening and requiring more oversight, the underlying and supporting technology is undergoing a sea change, with the computing world shifting to a new paradigm. Companies that are trying to go it alone by rebuilding or adjusting their infrastructures are in for a long, hard, expensive and at times painful transition.

Fortunately, the changes that are taking place in enterprise technology are opening up a clearer and more direct path for regulated enterprises to deploy cloud-based solutions. The cloud makes the transition much simpler and cost-effective, and provides a long-term solution that is much easier to manage and scale. The inherent benefits of the cloud are the reason it is one of the driving

forces behind this next computing paradigm. With the right cloud solution in place, enterprises can address all of the key questions they are facing in transforming their information management technologies and policies, including how to:

- Manage information governance for new data formats such as social media, mobile, and voice.
- Deploy an enterprise information archiving solution capable of managing retention, archiving, access, analytics, and reporting.
- Ensure that global deployments meet data privacy requirements where your company does business.
- Adapt infrastructure to address the speed, volume and response times required to enable big data initiatives.
- Ensure that data will be secure when moving to the cloud and that they are working with a cloud partner that has the necessary domain expertise, experience and stability.

The challenge in deploying cloud-based solutions for your enterprise data is typically one of **trust**: data is an organization's most important asset, and turning management of that data to a cloud supplier requires absolute confidence in that vendor's technology solution, underlying infrastructure, expertise, security and credibility in delivering bulletproof mission-critical solutions within highly regulated industries. Finding a vendor that has earned that trust has been a roadblock to more expansive use of the cloud to address today's data management challenges in regulated verticals. With the participation of Bloomberg in the market, that roadblock is eliminated and the path to a secure, trusted cloud is now clear and ready to be taken.