INTELLECTUAL ASSET MANAGEMENT
DATA SECURITY IN THE CLOUD

PROTECTING THE ASSETS THAT PROTECT YOUR BUSINESS
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– James Powell,
Chief Technology Officer
Thomson Reuters
INTRODUCTION

The security of data stored in the Cloud is of ever-increasing importance, especially given that 80 percent of all companies use, or will use, Cloud services by the end of this year.\(^1\) News headlines paint a pessimistic picture of the challenges in keeping information secure. Whether it be the NSA (U.S. National Security Agency)’s surveillance activity leaked by Edward Snowden; Rupert Murdoch and journalist’s telephone eaves dropping to break stories for News of the World; or retail chain Target\(^*\) and the loss of tens of millions of customers’ bank information, data security is a significant, global matter.

Compound this with the Big Data world in which we live and the incomprehensible amount of information available in previously unforeseen formats, and the scale of the situation quickly spirals beyond imagination. As information is increasingly being managed outside corporate firewalls, it’s imperative that privacy and data security be a central component of business strategy.

This applies to intellectual property assets as well. When a company spends hundreds of thousands, millions, or even billions of dollars to research, develop and commercialize key inventions, for example, it is critical that it similarly ensure the longevity and future revenue-generating potential of these inventions, and the intellectual assets that support them, through thoughtful data protection management.

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WHAT IS SUFFICIENT PROTECTION?

Intellectual assets (IA)—patents, trademarks, licensing agreements, contracts—cross department lines and often are used for different purposes by various groups in an organization. Such assets need to be managed long before they are commercialized. From the time an idea is generated to when it reaches store shelves, it goes through various iterations within its asset management existence, all to ensure it is maintained and leveraged to maximum potential.

Asset management happens different ways, depending on the type and size of an organization and the scope of its IA portfolio.

Some organizations choose to develop an in-house system that they maintain on their own, and task certain employees with staying on top of changing regulations in the jurisdictions where the organization does business around the world. Others opt to have an outside expert, such as a third-party provider, manage the assets for them. Other organizations utilize off-the-shelf software with a proven track record to leverage the expertise and functionality already developed by those who have been doing this for decades. And some have a hybrid approach, using two or more of these alternatives.

Whatever your organization’s preference, it is imperative that you understand your security needs and risks related to intellectual asset management. It seems only logical that a product or drug or piece of software that cost so much to bring to market be carefully managed for its short duration of legal protection (for example, up to 20 years for patents), whether inside or outside the Cloud.

CAREFULLY MANAGING DATA SECURITY IN THE CLOUD

The Cloud provides an amazing resource regardless of company size or data usage and storage needs. It allows organizations to store vast amounts of information outside of their firewall, and therefore without the need for massive servers and extensive, costly IT support.

However, as its name implies, data in the Cloud is data outside your organization’s four walls (also known as a “firewall”). The mere fact that data is stored externally means it is subject to external influences. The trick is to manage any external risks and ensure you have the proper mechanisms in place to keep your data safe.

Strong security in the Cloud involves finding a trusted partner with a proven track record in data management—a partner with the experience to guide you through the process of keeping your information secure and with the proper mechanisms to ensure the highest levels of ongoing security.

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—Heidi Salow, Vice President and Senior Privacy Officer Thomson Reuters

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Other first-class security measures include:
- Reducing the number of unstructured human interactions with the data
- Implementing processing systems that allow electronic submission of information in a secure and controlled environment
- Documenting a chain of data custody that is traceable and auditable, with time-stamps for user logins throughout the process
- Carefully managing and maintaining user access rights with the proper permissions and hard stops, such as not allowing local data storage or report printing, as examples

By adopting a completely electronic process, from submission and collection to storage and access, your organization can greatly reduce the errors inherent in data with human intervention. Additionally, the data can be error-checked as it is entered and incomplete information can be flagged before it even gets into the queue. Finally, stored information can be immediately encrypted.

**CHOOSING THE CLOUD**

Intellectual assets can be managed either locally or via a hosted model.

A “local” IA management system is behind a company’s firewall and requires onsite IT staff and software updates to maintain it. Thomson Reuters has a very long-standing and respected solution in this area: Thomson IP Manager Enterprise Edition.

A “hosted” IA system is outside a company’s firewall. The data is hosted by a third-party provider. Thomson Reuters has two hosted IA offerings: Thomson IP Manager Jumpstart and Thomson IP Manager Cloud Editions.

Advantages of the hosted model include:
- Reduced need for in-house IT support
- High levels of data security
- Automated upgrades
- Automated backup
- Front and back-end support

Whether via local or hosted versions, Thomson IP Manager always provides the highest levels of data security:
- The platform has a controlled environment that error-checks all information
- It prohibits the submission of incomplete data
- Data is encrypted for accuracy, protection and control
- It provides data format checks and drop-down menus to optimize accuracy and quality
- It has automated data validation to compare data with major patent offices globally
- There is an auditable history with date and time stamps of users’ actions
- Administrative controls are set by user level and category

All three Editions of Thomson IP Manager: Enterprise, Jumpstart and Cloud, provide comprehensive IP management that enables collaboration between departments, speeds decision making and protects critical assets for organizations and IP portfolios of all sizes.
MOVING TO THE CLOUD

As Salow points out, “To provide our clients with truly cost effective and scalable Cloud-based solutions, Thomson Reuters has developed a series of best practices for transitioning out of the locally hosted environment.”

The Thomson Reuters Information Security program is based on ISO 27001. This is managed by the Thomson Reuters Information Security Risk Management organization, which is managed by the Thomson Reuters Chief Information Security Officer (CISO). The CISO and business leads for Enterprise Security Services, Security Architecture & Engineering, and other relevant areas all report to the Chief Technology Officer.

The Thomson Reuters asset management program is based on Information Technology Infrastructure Library disciplines and is subject to Thomson Reuters ISO 27001 certification across the platform. Information assets are classified as public, confidential (which is the default setting) or strictly confidential. This applies to both paper and electronic information assets.

An inventory of all Thomson Reuters assets and their dependencies is maintained in the Thomson Reuters Asset Manager system. The Information Security Audit team conducts reviews of this data at least once a year.

“The Thomson Reuters Privacy Office regularly evaluates global privacy and data protection requirements set forth in applicable laws, regulations, court opinions and industry best practices,” said Salow. “Thomson Reuters clients around the world can be confident that our hosted solutions conform to internationally recognized data security standards.”

**BENEFITS OF CLOUD COMPUTING**

- Reduces start-up costs
- Enables enterprises to reduce capital expenditures
- Convenient for users who can access content and data from anywhere
- Automatic updates and maintenance
- Reduces software licensing costs
- Allows enhanced functionality on mobile devices

**CLOUD COMPUTING CONSIDERATIONS**

- Data security
- Where data is processed and stored
- Who is responsible for uploading and “controlling” the data
- Data processing requirement and jurisdictional restrictions on data access and data transfers
Privacy Laws Heat Map

The following shows countries with developed, developing and just emerging data privacy laws globally.

Source: Forrester Research, Inc.
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To find out more about IP Solutions from Thomson Reuters, go to ip.thomsonreuters.com.