



A Whitepaper for SaaS Customers and Vendors

Leveraging Escrow Agreements to Safeguard Your Business from the Risks Associated With Software-as-a-Service

An Independent Analysis Published on Behalf of Iron Mountain



Executive Overview

The software industry is undergoing a fundamental transformation as traditional, on-premise applications are being re-architected to reside online and operate in an on-demand fashion. This shift is being driven by a combination of macro-trends, technological innovations and changing customer preferences. While this new generation of Software-as-a-Service (SaaS) solutions is delivering measurable business benefits, it also creates new vulnerabilities that require a new level of business discipline to mitigate these risks.

The macro-trends include globalization which is reshaping the competitive landscape, and worker dispersion which is changing the way businesses operate in nearly every industry sector. The technology innovations include a wide range of software development tools and techniques which make it easier to create and deliver relatively inexpensive, full-featured applications via the web. Customers are also moving from a preference for owning and operating their own information technology (IT) and software applications, to leveraging on-demand solutions which they can acquire on a pay-as-you-go, subscription service basis.

THINKstrategies' research has not only been among the first to recognize the widespread interest and adoption of SaaS, it has also identified key issues which SaaS providers must still address in order to achieve mainstream acceptance.

These trends are encouraging a new generation of SaaS providers to emerge who are challenging the old-guard of independent software vendors (ISVs). The traditional ISVs are facing serious impediments in their efforts to respond to the SaaS movement. They must re-architect their legacy applications to enable them to operate effectively on the web. They must re-structure their revenue recognition models to accommodate the subscription pricing associated with SaaS rather than the upfront revenues generated from traditional perpetual software licenses. And, they must change their corporate cultures, sales compensation and channel strategies to properly sell and support SaaS rather than 'shrink-wrapped' software products.

While new SaaS providers are not confronted by the same challenges as the traditional ISVs, they have their own obstacles to overcome. They must capture industry attention in order to win customers and achieve meaningful market penetration. This means they must win the trust of customers who will rely on their SaaS solutions to perform important business functions. They must also ensure the reliability and security of their web-based solutions, and convince prospective customers of their long-term scalability and financial viability.

Customer concerns about the security of their data and the viability of their SaaS providers are the greatest impediments to greater SaaS adoption, according to THINKstrategies' research.

This whitepaper will discuss a proven mechanism for addressing these concerns—creating a technology escrow program to safeguard SaaS solutions. We will examine how technology escrow programs work, and how SaaS providers and customers alike have benefited from programs offered by companies such as Iron Mountain.

The Key Drivers Fueling the SaaS Movement

Globalization has dramatically changed the competitive landscape within nearly every major industry sector. Globalization has opened the door for companies of all sizes to new markets and sources of supplies for goods and services of all types. In addition to creating new target markets for these goods and services, cheaper offshore resources have significantly reduced the cost of producing these goods and services.

These same trends have also enabled new players to emerge offering low-cost products and services which is commoditizing many markets and creating price competition. **Commodization** is making it more difficult for companies to differentiate their goods and services. **eCommerce** and the proliferation of traditional channel outlets, is also making it easier for customers to switch suppliers. These trends were compellingly described in Thomas Friedman's best-selling book, *The World is Flat*.

Worker dispersion is also accelerating. More people are working from home or in other remote locations while they're on the road. This trend has driven organizations to implement web-based solutions which enable employees to access corporate applications and databases remotely.

Many workers are becoming comfortable using web-based solutions in their everyday personal lives such as consumer-oriented, online storage services for their photos and security services to protect their PCs and documents. The ease of use and low cost of these online services are also setting new expectations for a comparable set of web-based services to address their corporate and professional needs.

Interest in on-demand, or SaaS solutions, for the office is also being driven by escalating frustration among corporate executives and business end-users with the functional shortcomings of traditional software. They have become increasingly dissatisfied with the time, effort and money that has been wasted deploying and maintaining legacy applications.

This frustration is understandable given that over half of those software deployment projects take twice as long or cost twice as much as originally expected, according to government studies. In fact, nearly a third of software projects are cancelled before they are completed.

Even those software applications which are fully deployed are often under-utilized, according to AMR Research. And, maintenance and management costs to keep traditional applications up and running can often be ten times the original license fee, according to AMR.

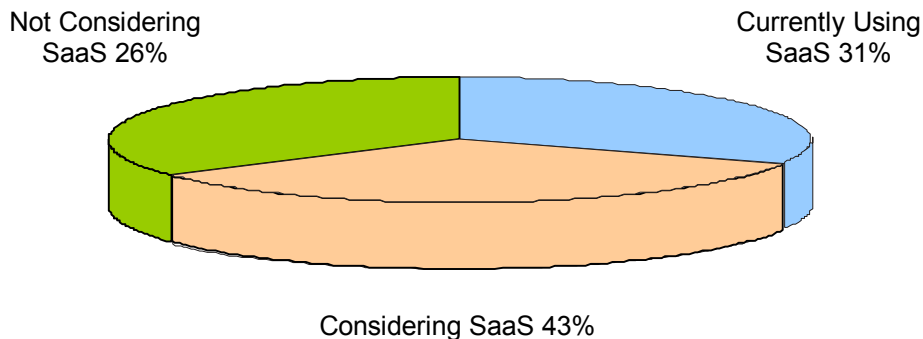
Obviously, companies cannot continue to put up with these issues in an increasingly competitive marketplace and intensifying economic climate.

In response to these trends, a growing proportion of organizations are looking for new ways to acquire software functionality without the added deployment and maintenance hassles and costs of the past.

THINKstrategies' survey research, conducted in conjunction with Cutter Consortium, has found that almost a third of organizations have already adopted some form of on-demand software and 43% are considering SaaS, up from 34% in 2005. (See, Figure 1)

Figure 1

Majority of Businesses Using or Considering SaaS



Source: 2006 THINKstrategies/Cutter Consortium Survey

As a result of this rising customer interest, IDC estimates the SaaS market will reach \$8.0 billion by the end of 2007, and Gartner predicts the market will jump to \$19.3 billion by year-end 2011, when over 25% of all software sales will be SaaS. In contrast, Forrester Research forecasts that traditional, on-premise enterprise applications will grow at a rate of less than 4% per year through the remainder of this decade.

Maybe the most impressive forecast of all regarding the dramatic shift toward software services came from Microsoft's own CEO, Steve Ballmer, who predicted at a recent gathering of public sector CIOs that 80% of their organizations would be utilizing SaaS solutions by the end of the decade.

The Unique Risks Associated With SaaS

While there is growing interest in SaaS and adoption is spreading, over a quarter of the respondents to the 2006 THINKstrategies/Cutter Consortium SaaS survey indicated they are still concerned about the reliability, security and long-term financial viability of today's SaaS providers.

Some of these concerns are a remnant of the fallout from the dot.com bust which saw many of the original wave of application service providers (ASPs) disappear. The demise of these ASPs has left many companies, large and small, apprehensive about entrusting their software requirements to third-parties.

There are many differences between today's SaaS solutions and the ASP offerings of the past.

Today's SaaS solutions are built to reside and leverage the advantages of the web, whereas the ASPs were simply reselling legacy applications which were cumbersome to use and not architected to capitalize on the multi-user and real-time reporting capabilities of the Internet. The SaaS solutions permit more flexible, pay-as-you-go, subscription pricing models rather than the upfront, perpetual license fees which ASPs demanded.

SaaS providers also employ lower cost software development tools and techniques which permit continuous enhancements to their on-demand applications rather than the long development and deployment cycles which are common among on-premise, legacy applications.

As a greater proportion of companies become dependent on software to operate their businesses, they are also becoming more concerned about turning over software deployment and management to untested or unproven SaaS providers.

These concerns are not necessarily unfounded. In late 2005 and early 2006 for instance, Salesforce.com customers went through a series of service disruptions which impaired their ability to access and utilize the company's on-demand customer relationship management (CRM) and salesforce automation (SFA) services.

Companies are also increasingly sensitive about malicious Internet attacks or hackers penetrating their corporate data. There are legal liabilities and public relations costs to these incursions that can seriously compound the operational costs of these events.

As a result, customers are demanding greater assurances that their SaaS providers can guarantee service availability, security and privacy. They are demanding service level agreements (SLAs) to document these assurances.

They are also expecting their SaaS provider to be Statement on Auditing Standard (SaS) 70 certified. This is an American Institute of Certified Public Accountants (AICPA), professional standard used by a service auditor to assess the internal controls of a service organization and issue a service auditor's report on the quality of their operations.

While all these measures are essential, they don't go far enough to safeguard the customer or the SaaS provider's interests. For instance, with traditional, on-premise software licensing, applications and data are run on the company's hardware. If a software vendor fails to support the application, the customer still owns the object code, or machine readable code sold to licensees.

In the case of SaaS, the customer doesn't own the object code because the customer is simply subscribing to access the functionality without assuming ownership of the software which powers the application. In this case, both, the application and proprietary data are hosted outside the company's firewall.

If a SaaS provider suffers a service disruption, goes out of business or is acquired by another company that chooses to no longer support its SaaS solutions, the customers are far more vulnerable to a severe disruption to their business operations.

These risks are driving an increasing number of SaaS users, as well as SaaS providers, to seek a more effective method to mitigate the risks of a severe disruption of a SaaS solution. In response, technology escrow agreements are becoming a popular remedy for today's SaaS risks.

Applying Technology Escrow Agreements to SaaS Solutions

The concept of an escrow agreement was originated in the financial services sector as a way to put aside funds to cover the costs a potential loss. In essence, escrow agreements have served as a safety net that offsets the risks of investing in a potentially risky proposition.

Wikipedia defines escrow as a,

“Legal arrangement in which an asset is delivered to a third party (called an escrow agent) to be held in trust pending a contingency or the fulfillment of a condition or conditions in a contract such as payment of a purchase price. Upon that event occurring, the escrow agent will deliver the asset to the proper recipient, otherwise the escrow agent is bound by his or her fiduciary duty to maintain the escrow account.”

Technology escrow agreements have been in existence for over 25 years. In fact, they have been considered a best practice for both licensed software developers and their customers. In the traditional, on-premise software industry, technology escrow assurances have been a common practice that ensured that customers could gain access to licensed mission critical software based upon a set of pre-determined events and conditions.

In the case of SaaS, the technology escrow agreement is established to ensure that the customer can gain access to the SaaS provider's on-demand software application if the provider cannot deliver the application or goes out of business.

This new form of escrow service is designed to specifically protect customers, as well as the SaaS providers, in the event that the on-demand business applications cannot be accessed.

The escrow agreement enables the SaaS customer to gain access to the SaaS application and the intellectual property that supports it if release conditions are met, such as the SaaS provider going out of business or being acquired by another company that is no longer willing to support the on-demand application.

In a SaaS situation, the escrow agreement gives the SaaS subscriber access to the functional, executable, object code, and all the necessary components to make that application function correctly. These can include third party tools, APIs, schematics of software components and stacks, as well as procedural instructions on how to set up and operate the SaaS application.

Even more importantly, the SaaS escrow must protect the intellectual property (IP) data. In a SaaS situation, successful risk mitigation requires timely access to the application *and* the dynamic IP data. This is not only in the interest of the subscriber, but also in the interest of the SaaS provider who must protect its data to continue its own business operations.

Therefore, the SaaS escrow agreement must cover the key components required for the SaaS subscriber and provider alike to achieve a faster *Recovery Time Objective* (RTO) so they can reconnect to the SaaS application and resume work. In this way, the escrowed object code and dynamic IP gives the SaaS subscriber and provider an added element in a comprehensive disaster recovery or business continuity plan.

In order to fully satisfy an organization's needs, the escrow must also include mechanisms to verify that the SaaS solution's executable object code and supporting documentation have been properly deposited. The escrow agreement should also include usability testing by a certified escrow agent who can also verify that the escrowed source code can successfully recreate a production environment.

Iron Mountain's Escrow Solution to Protect SaaS Applications and Data

Iron Mountain, a leading provider of information protection and storage services, offers technology escrow solutions for SaaS providers and customers. Iron Mountain's technology escrow contracts ensure that the SaaS source code is protected and easily accessed by the SaaS customer upon request.

Iron Mountain's SaaSProtect Escrow Service™ offers three-party escrow agreements that include the SaaS provider, Iron Mountain, and the subscriber. The escrow arrangement reduces the risks of SaaS by helping ensure business continuity.

It also takes into consideration the "deposit" methodology from a back-up and recovery perspective. The data deposit account location and methodology – frequency, extent, and transmission methodology, is agreed upon by the SaaS subscriber and provider, and is specific to the customer's requirements. The backup and recovery plan includes a *Recovery Point Objective* (RPO) based on the mission critical nature of the application, the type and characteristics of the dynamic data, and the storage technology.

The multi-tenant architecture which supports SaaS solutions creates unique backup and recovery challenges. SaaS providers store multiple customers' data on the same servers. Therefore, the escrow agreement and data recovery plan must clearly state how the SaaS provider will segregate this data for backup purposes.

Customers will also have varying back-up facility preferences. Some prefer to back-up their data at a site they own and operate. Others will rely on commercially available backup and recovery software to store their data and/or. Others use electronic vaulting services that include continuous data backup to protect against data loss during SaaS application disruptions or outages.

Iron Mountain's LiveVault® Server Data Backup & Recovery solutions for enterprise remote offices and SMBs automate the offsite storage of data to a secure facility or within an organization's own data center. They also perform continuous back-ups, so users can recover server data at any time, or archive data long-term.

Iron Mountain's SaaS Protect Escrow Service also includes three types of verification to ensure that the SaaS provider's software is being held in a safe location which can be easily accessed by the customer if necessary. The parties

can determine the appropriate type of verification depending on the level of risk associated with the SaaS application being licensed.

The three types of verification are,

- *File Comparison and Analysis* which validates the ability of the SaaS customer to read the web-based SaaS media and identify the key elements needed to maintain the SaaS solution.
- *Deposit Compile Testing* which assembles the appropriate SaaS development and executable code.
- *Deposit Usability Testing* which examines the SaaS solution functionality based compiled deposit materials.

Summary and Conclusions

Today's SaaS solutions offer an exciting alternative to the costly and cumbersome legacy applications of the past. They are easier and quicker to deploy, less expensive to acquire and maintain, and offer additional functional capabilities which traditional, on-premise applications cannot match in many cases.

However, SaaS solutions also come with their own risks. These web-based solutions depend on network connectivity which can fail. They must withstand escalating security threats. And, upstart SaaS providers must build a strong customer base in order to survive financially. Failures in any of these areas could result in disruptions to a SaaS subscriber's access to the online application which can adversely affect its ability to do business.

Therefore, it is imperative that SaaS subscribers put the right safeguards in place to mitigate these risks. A technology escrow agreement is a proven mechanism for protecting the investment which organizations make in software applications. It ensures that if something goes wrong and the SaaS provider cannot fulfill their promise of delivering their application, the customer can still access the SaaS source or object code, their proprietary data and the IP which supports the SaaS solution.

Smart SaaS providers are also recognizing the value of offering technology escrow arrangements to their customers. These agreements enable the SaaS provider to overcome the common concerns among customers regarding data ownership, loss and access. By offering a technology escrow agreement, the SaaS provider is giving SaaS subscribers greater assurance and confidence that they do not have to worry about the availability of their on-demand applications.

So, the technology escrow agreement with verification, back-up and recovery services provides a safety net for the SaaS subscriber, and an important differentiator and competitive advantage for the SaaS provider in a rapidly evolving SaaS marketplace.

This independent analysis was sponsored by Iron Mountain, Inc.

About Iron Mountain, Inc.

Iron Mountain Incorporated (NYSE:IRM) helps organizations around the world reduce the costs and risks associated with information protection and storage. The company offers comprehensive records management and data protection solutions, along with the expertise and experience to address complex information challenges such as rising storage costs, litigation, regulatory compliance and disaster recovery. Founded in 1951, Iron Mountain is a trusted partner to more than 90,000 corporate clients throughout North America, Europe, Latin American and Asia Pacific. For more information, visit the company's Web site at www.ironmountain.com.

About THINKstrategies, Inc.

THINKstrategies is a strategic consulting services company formed specifically to address the unprecedented business challenges facing IT managers, solutions providers and investors today as the technology industry shifts toward a services orientation. The company's mission is to help our clients re-THINK their corporate strategies, and refocus their limited resources to achieve their business objectives. We help enterprise decision-makers with their sourcing strategies, IT solutions providers with their marketing strategies, and investment firms with their technology investment strategies. THINKstrategies is also the founder of the Managed Services Showplace (www.msp-showplace.com) and Software-as-a-Service Showplace (www.saas-showplace.com) online directories and information resource centers. For more information regarding our unique services, visit www.thinkstrategies.com, or contact us at info@thinkstrategies.com.