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Thinking Ahead to Create a Smart Cloud Strategy

By Brian Ruthruff and Steven Meyers

For many years the question has been, "Will my law firm adopt cloud solutions?" With that issue largely settled, as evidenced by the rapidly expanding adoption of cloud solutions in the legal community, it is time for law firms to begin considering not if but how. The sheer number of cloud-based systems available to firms is overwhelming, making deliberate, forward-thinking planning absolutely necessary to ensure you have a cohesive technology strategy. Unlike traditional on-site software, cloud software allows IT teams (and, in some cases, users themselves) to access and start using new tools almost instantaneously. While this is a huge advantage in efficiency and ease of implementation, it can lead to a chaotic technology landscape in a law firm that has not taken the time to map out how and when it will leverage cloud solutions. Below are five tips for firms that are looking to cloud solutions, five pitfalls to avoid and five more suggestions for how to evade them.

TIP NO. 1: ENSURE YOUR CLOUD PROVIDER HAS AN APPROPRIATE LEVEL OF RELIABILITY, RESILIENCY AND REDUNDANCY.

Not all cloud providers are created equal. For example, at the time of this writing, the Amazon Web Services (AWS) infrastructure included nine regions, 25 availability zones; however, it is under continuous expansion. It spans five continents and has highly redundant clusters of data centers in each region. Every day they add enough infrastructure to power a billion company.

The redundancy and resiliency possible with a cloud solution are astronomical in comparison with anything an average-size firm could build on its own, but you need take care to ensure your cloud provider meets this promise.

PITFALL NO.1: LACK OF INDUSTRY-STANDARD UPTIME CALCULATIONS

You will often see uptime guarantees of 99.99 percent or even 100 percent when reviewing cloud solutions, but be sure to find out how that number is calculated. These percentages can be deceiving and are dependent on calculations that are not consistent across providers, making apples-to-apples comparisons difficult. A thorough understanding of the calculation will help you get what to expect from the solution.

Over the course of time your cloud solution should result in greatly reduced downtime. Choose the wrong provider and you may actually add to

your downtime.

How to avoid this pitfall: Ask prospective vendors how they calculate their uptime estimates, and test each solution that is being evaluated against your own calculations. This will help to make a solid and fair comparison.

TIP NO. 2: CLEARLY DEFINE AND ENFORCE YOUR FIRM'S SECURITY REQUIREMENTS.

Security is critical to law firms, and it should be critical to your cloud provider, as well. The economies of scale that cloud providers enjoy should allow them to offer a security profile that far exceeds anything an average-size firm could deliver internally.

PITFALL NO. 2: NOT DOING A THOROUGH CHECK OF A PROVIDER'S CERTIFICATIONS

Major cloud providers have achieved (and can prove) ISO certifications and should have been validated as a Level 1 service provider under the Payment Card Industry (PCI) Data Security Standard (DSS). They undergo annual SOC 1 audits (service organization controls), and many have been successfully evaluated at the Moderate level for federal government systems as well as DIACAP Level 2 for Department of Defense (DoD) systems. They can meet additional standards such as HIPAA, ISO 27001, FIPS, CAS and MPAA. These certifications and compliance achievements basically ensure the cloud provider's clients that they have controls in place to safeguard the security of their systems and data.

How to avoid this pitfall: Confirming that your cloud provider meets the security requirements your clients' demand of you is absolutely critical. Get proof of all certifications and be wary of phrases like, "We're in the process of certification."

TIP NO. 3: IMPLEMENT RIGHT-SIZE PERFORMANCE.

In a traditional virtualization or physical server project, firms need an overprovision server and storage resources up front to allow for growth over the useful life of the hardware. One of the major benefits presented by the cloud model is that the consumption of resources is based on real-time needs. Cloud providers offer an extensive array of performance options, including network performance, memory, storage performance, etc.

PITFALL NO. 3: NOT KNOWING YOUR APPLICATIONS' PERFORMANCE CHARACTERISTICS AND REQUIREMENTS

Make sure you know your applications' performance requirements and how to correctly provision the cloud servers for them, especially for user-facing applications such as email, remote access and document management. Before moving applications to the cloud, monitor and measure performance on the existing servers. During the test phase, measure performance with various memory, CPU (central processing unit) and networking characteristics. During implementation, ensure the systems are built according to plan. After implementation, continue to monitor and measure performance in the cloud to ensure all is as expected.

How to avoid this pitfall: Ensure you know your provider's cost model and how your firm's application performance requirements will work with this model. Measure during your applications' peaks and during the busy hour load.

TIP NO. 4: WATCH WHERE YOUR DATA IS STORE.

Many cloud providers have overseas data centers. This is a great feature for multinational corporations, but not always in the best interest of law firms.

PITFALL NO. 4: SENSITIVE DATA STORED OVERSEAS

Law firms would shudder at the thought of their data being stored overseas for many reasons, including differences in global privacy policies among foreign governments.

How to avoid this pitfall: In most instances it is very easy to move data between cloud data centers – possibly too easy. Ensure your cloud provider has provisions to prevent your data from being sent overseas. Many providers have controls and systems in place to stop the accidental movement of your data between their international data centers.

TIP NO. 5: MONITOR COSTS; THE METER IS RUNNING.

The ease with which additional cloud servers and applications can be implemented, for production, test and disaster recovery systems, opens up the potential for unnecessary systems running in the cloud.

PITFALL NO. 5: PAY-FOR-PERFORMANCE MODEL

An extra server or two using resources in a traditional virtualization model can go unnoticed, but when you are paying for CPU, memory and storage resources, extra costs add up. The flexibility and ease of implementation of new systems can lead to surprises when the bill comes at the end of the month.

How to avoid this pitfall: Review the servers running in your environment on a periodic basis, establish internal controls to prevent the creation of unnecessary new servers, and develop policies around test and disaster recovery systems.

The cloud may prove to be the most powerful infrastructure evolution IT has experienced. However, along with its almost limitless possibilities come dangerous pitfalls. For the greatest success, evaluate and create a long-term strategy for taking advantage of cloud-based systems. Carefully plan to ensure your cloud solution truly meets the needs of your firm. Review potential pitfalls and develop policies to avoid them. Ensure the solutions are right-sized based on the needs of your firm; avoid cloud providers that promise more than they can deliver. Monitor your cloud infrastructure, application performance and overall solution costs. The ease of cloud solutions tempts many to take a short-term view of how to leverage the cloud. However, if you see a cloud strategy as a long-term proposition, you will be in the best position to reap the rewards.

ABOUT THE AUTHORS

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