

Disaster Recovery: The Budget Item You Cannot Afford to Cut

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Business leaders across the globe may think disaster recovery (DR) is too expensive, too complex, or that a disaster is unlikely to impact them. Yet human error, cybercrime or natural disaster can cause their company's digital infrastructure to come crashing down in a split second. Then what?

With no Plan B in place, a disaster could not only cost businesses millions of dollars, but also their loyal customers and ultimately their reputation. However, by budgeting for disaster recovery and contracting with a Disaster Recovery as a Service (DRaaS) provider, business leaders can sleep easy knowing the firm's data is safe and operations can be restored in a matter of minutes.

"A disaster is something that happens to someone else," said Jack Bailey, solutions engineering manager at iland, a long-established global cloud infrastructure provider. "When people think of disasters, they immediately think about hurricanes and earthquakes; however, a disaster doesn't have to be a naturally occurring one. It could be from human error or a cyber-attack. Therefore, it's important to have a plan B to protect your mission critical applications and data. It's also important to know that it's more than a loss in revenue or five minutes of downtime—it can wreak havoc on your overall brand and customer loyalty."

According to a survey conducted by the Aberdeen Group – a research firm helping businesses understand the implications and results of technology deployments – the cost of downtime between June 2010 and February 2012 increased 65 percent.

Furthermore, Aberdeen survey respondents who utilize DRaaS report cost savings as the leading benefit of using the public cloud for disaster recovery. Faster recovery time from downtime incidents ranks a close second. In fact, DRaaS users recover three times faster than in-house infrastructure users with the average length of an outage lasting only one hour, compared to three hours, the study reveals.

“Many believe backing up data on tapes is the equivalent of DR,” noted Dante Orsini, iland’s senior vice president of business development. “Protecting data is important; however the ability to recover applications efficiently and quickly is essential in restoring operations. Having data on tapes or using data storage without virtual resources and the ability to easily test isn’t disaster recovery; that’s just off-site back up and not true business continuity.”

For Help at Home, Inc. – which has been providing in-home and respite services to the elderly, medically fragile and disabled for over 30 years – keeping mission critical applications running ensures patients receive the care they need. Instead of purchasing hardware to back up applications, Help at Home has decided to virtualize.

Help at Home’s Senior Manager of IT Eric Heidrich knew running a mission-critical application out of one data center was an invitation for unplanned downtime. Heidrich was quick to recognize the “IT insecurity” of running a mission-critical application only on in-house servers, which would be vulnerable to natural or man-made disasters. He wanted a business continuity solution that provided redundancy, recovery and reliability.

Help at Home is now working with a DRaaS provider and “will save millions of dollars by minimizing downtime, allowing operations to continue, and preventing regulatory penalties related to patient health care data,” Heidrich said. “More importantly, we will keep vital medical information available to our care providers and ensure the safety of our patients.”

“Help at Home immediately saved \$15,000 in labor costs and is estimated to save more than \$150,000 over three years,” Heidrich said. Those savings come from eliminated capital expenditures for SANs (storage area networks), servers, software licensing, collocated costs and the staff management time needed to replicate the production environment.

On the enterprise side, a major global biotechnology company reduced its costs by a 75:1 ratio by outsourcing its disaster recovery to a DRaaS provider. By closing down one of its multiple global data centers, which cost approximately \$75 million in capital investment and operating expenses, the firm is now only spending a little over \$1 million over the next three years.

“The biotechnology industry is highly-regulated,” Orsini said. “Consequently, they have to conduct a tremendous amount of qualification and validation of their systems, processes, and controls to ensure good quality practices are being met organizationally. This places a significant burden on global IT teams, so there are big operational benefits to consolidating data centers.”

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For this biotechnology firm, it isn't only about cost savings. By moving from an environment leveraging multiple technologies to support the replication of systems and data, to a single solution that automates the recovery of all applications, the organization has simplified its testing and recovery processes dramatically. Their new DRaaS solution provides the flexibility to adjust recovery times from seconds to hours based on the needs of the business, rather than the historical limits of their legacy technology.

An affordable DR plan is within reach

While organizations in highly-regulated industries such as health care, financial services and government industries are required to have a DR plan, other companies across the globe are now realizing the importance of DR. If an organization is providing a service to a mid-market or enterprise company, vendors will want to know the business has a DR plan and that it's been tested. Vendors may go as far as to ask to review the plan and testing results.

Businesses can put their DR plan to the test anytime throughout the year without bringing down production. It's extremely important to ensure applications and data or IT environments come up on another site and no data is lost. Businesses can conduct planned or unplanned outages within the first few months of replication to ensure their DR plan works.

"The value is to ensure all systems they want to replicate are recovered and that they have access to them," Bailey said. "Once you are in the middle of an actual DR event it is too late to be figuring this out."

"Disaster recovery in the cloud is now more attainable for businesses of all sizes than five years ago. Before virtualization, it would cost at least three times as much because an organization needed to have multiple data centers, specialized software and large network connections," Bailey said.

"To do this in the physical world is extremely costly. That's why only the largest of enterprises were able to do it," he concluded. "Now virtualization makes disaster recovery easier by encapsulating virtual machines (VMs) into a few files, making the data portable and in turn reducing costs."

Disaster recovery costs vary depending on how many virtual machines an organization needs to replicate and the size of the data. Costs can range from \$60 to \$120 per month per virtual machine and can vary depending on factors such as recovery point objective (RPO), recovery time objective (RTO), storage, etc.

Every company's virtual environment is different. How many applications does it want to protect? Does it want the ability to failover its entire virtual environment or a portion of it during a disaster recovery event? How quickly does it want to have programs back up and running?

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For example, when a hospital is operating at 100 percent it may be running 50 or so different applications. However, when a DR event strikes, the hospital may only want its mission critical (Tier 1) application running, such as applications connected directly to patient care. While the applications pertaining to the HR or payroll process will be protected during a DR event, they most likely won't need to be powered on immediately, reserving resources for mission-critical applications.

Keep in mind that when tiering applications the tighter the recovery point the higher the cost. Ideally, businesses work with a DRaaS provider that can deliver a single solution that automates the recovery based on the demands of the business. Basically, it's a solution that automates application recovery from seconds to hours based on the business' need. Compare this against separate solutions for each tier, or worse, a solution that is only capable of a single recovery time for all applications.

Understanding the offerings

Offerings in the DR space fall into one of three categories: do it yourself (DIY), DR as a Service (DRaaS) or cloud-to-cloud disaster recovery (C2C DR).

- 1. Do it yourself (DIY):** DIY providers offer managed hosting, cloud, colocation and other data center services. Many don't have a DR-in-the-cloud offering, but their services can be leveraged for companies to build their own recovery cloud. Since most companies lack the internal expertise to architect and manage an effective DR solution or add DR responsibilities to internal teams that are already struggling to maintain existing IT responsibilities, DIY may not be the best or most cost-effective solution.
- 2. DR as a Service (DRaaS):** DRaaS providers can provision, configure and test an effective DR plan. DRaaS vendors provide a standard DR failover to a cloud environment. Businesses can buy on a pay-per-use basis with varying rates based on recovery time and applications being spun up during a disaster. DRaaS providers replicate data and applications or use image-based backups to send data to the cloud. During a disaster or for testing, businesses' production environments can be run out of the cloud because the DRaaS vendor is less likely than the business to suffer the effects of a disaster.
- 3. Cloud-to-cloud disaster recovery (C2C DR):** These providers offer the ability to failover infrastructure from one cloud data center to another, either within a single vendor's environment or across multiple vendors.

There are several methods of paying for DR services. Certain cloud providers require contracts as short as a year, while other providers will entertain long-term contracts. Regardless of terms, DRaaS provides IT professionals with the ability to adapt to the ever changing IT environment and their business' needs much more dynamically as these environments are built to scale.

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There's a pay-as-you-go model that removes large initial investment costs and operates on a consumption-based method. Basically, customers pay for replication and storage but are metered on the recovery resources they use.

Rather than determining cost based on usage, some cloud providers squeeze customers into pre-set categories based on the most common size of machines being replicated by businesses worldwide. Other payment methods take a hybrid approach, first allowing customers to pay per month based on their needs, which may be to have only the Tier 1 applications running, but offering the flexibility to burst above and beyond the minimum. For example, if a customer wants to power up more applications than just those that are mission critical or more applications than originally planned during a disaster, it has the ability to do so.

“There is no ‘one size fits all’ when it comes to DR. What’s a good fit for one company isn’t for another,” Bailey said. “It’s important to know that if and when things go wrong, you’re working with a provider that knows what they’re doing.”

When choosing a DR provider in the cloud, 59 percent of companies surveyed for Aberdeen’s study highlighted proven technology in the operational environment as the top criteria.

Organizations should do their homework. Look at DR cloud providers that are experienced and will walk them through what they need, not simply sell them a DR subscription. Bailey encourages business leaders to research, budget for and implement DR solutions before disaster strikes.

According to Bailey, “Companies don’t always see DR as important until it happens to them. And when it does, they’re thankful they have it.”

About iland

iland, VMware’s Service Provider Partner of the Year, Global and Americas, was one of VMware’s first Premier cloud infrastructure partners and as a pure-play IaaS provider has been delivering global cloud services since 2007. Our consultative approach and innovative Enterprise, Managed, Private and Continuity Cloud Services enable our customers to rapidly and cost-effectively solve challenges through the provision of scalable production, testing, development, disaster recovery, and training in a controlled and secure cloud environment. iland.com