

News

Basics tenets of good IT DR

A good IT disaster recovery practice begins with a thorough Business Impact Analysis exercise writes *Rajendra Chaudhary*



Although Disaster Recovery (DR) in the true sense mandates a holistic business orientation involving people, processes and technology, it is IT services recovery that most organizations begin with and, since having a DR or BCP (Business Continuity Planning) manager in the ranks is still not a common practice here in India, it is often the IT manager who is assigned the job of strategizing and creating a DR plan for the organization. While on the surface, it may seem like a simple enough task, in reality identifying and planning for IT DR is hard work. Just ask Pertisth Mankotia, Head - IT, Sheela Foam. Mankotia began working on a DR plan in 2009 after a major instance of downtime triggered by a failure in his storage environment and he is just

starting to come to terms with it.

"How does one build a good IT DR plan?" we asked him. Mankotia replied, "There are many things which can influence one's DR strategy and so I can't really prescribe a checklist which can be used by everyone. Your IT recovery strategy depends on a number of elements such as the size, scope and nature of the company's business operations, its business processes associated applications, the IT staff and maturity of IT operations, management's attitude towards DR, availability of finances and so on."

However, he did refer to an important approach that can prove useful during such an exercise. He suggested that IT managers conduct a Business Impact Analysis (BIA) jointly with the business users. "This will help identify what it is

that's at risk and the critical business processes. A BIA exercise can help prioritize risk management and investment recovery. There are three key deliverables that you should look for during a BIA exercise viz. Recovery Time Objective (RTO), Recovery Point Objective (RPO), and the Cost of Downtime. These considerations will help you better identify the technologies and methods that you should use for your DR plan," said Mankotia.

Mankotia himself conducted a BIA when he was trying to understand what was essential and what was not to Sheela Foam back in 2009. "In lay terms, we looked at what hurt us the most during an event and how best we could avoid downtime. It was this exercise that helped me identify my mission critical applications and the infrastructure



A Business Impact Analysis will help identify what it is that's at risk and the critical business processes. The key deliverables that you should look for are RTO, RPO and Cost of Downtime

Pertish Mankotia, Head - IT, Sheela Foam



With the Cloud one doesn't need to erect a DR facility and keep investing in it. With Cloud DR one can allocate capacity and performance on the fly and pay only for the resources consumed

Lakshman Narayanaswamy, Co-Founder and Vice President-Products, Sanovi Technologies



Outsourcing DR is always a better proposition. Organizations can save from 37% to 54% of their annual recurring costs by subscribing to an outsourced model of disaster recovery

Atul Hemani, MD, Omnitech InfoSolutions

that supported them and eventually set up a DR site at our Hyderabad-based manufacturing plant."

Data recovery and virtualization are key

Data recovery forms a critical part of any IT DR exercise. This becomes even more important for organizations such as banks and financial institutions whose operations are fairly data-intensive in nature. B. Murali Nair, CTO, Lakshmi Vilas Bank (LVB) offered a piece of advice on the data recovery front.

Nair whose primary site is in Chennai and whose DR site is located in Bangalore stressed the need for data consistency and integrity at the DR site for fast recovery. "If you do not have consistent data at the DR site, it may lead to a time-consuming reconciliation process when you are trying to get back after a disaster has struck. This can cripple you in our line of business. It is therefore important to fully understand how your replication technology works, what its limitations are and how it will react in different disaster scenarios."

Nair recommended that, when choosing a storage solution, one must always try to fully understand how it will be deployed and how it will ensure data consistency.

Another key ingredient which can make your IT DR recipe a success is server virtualization. The technology is rapidly becoming a CIO favorite and a key part of their DR efforts. Sheela Foam's Mankotia who runs on an average of five virtual machines (VMs) per physical machine at his Hyderabad location said that VMs offer many advantages that can be quite useful in a DR setup.

"One of the main advantages is that, since VMs are independent of the physical hardware, you get hardware independence and the ability to scale up as per your need. Also, by leveraging server virtualization, we have not only been able to keep the server count low in our daily operations but also reduce recovery costs and speed up recovery at our DR site," said Mankotia.

Outsourced DR

When it comes to IT DR, organizations can



Inconsistent data at the DR site may lead to a time-consuming reconciliation. You must understand how the replication technology works, its limitations and how it reacts in various scenarios

B. Murali Nair, CTO, Lakshmi Vilas Bank

Common pitfalls to be avoided

- Experts suggest that despite the obvious need for disaster recovery, many organizations perceive it to be "a project that can wait" and consequently keep delaying the decision. CIOs must convince their managements that it's not and make them recognize DR as a must have and ask them for the due attention and funding to establish a DR practice. This does not mean that the DR setup must support the highest level of capability, this can be an incremental process based on budget and other considerations
- Secondly, DR managers must also realize that replicating or protecting data does not constitute a DR capability. Restoration of the data and recovering the application is what DR must deliver. The DR manager must have the visibility and the confidence that the DR solutions are working and meeting key recovery metrics like Recovery Point and Recovery Time Objectives

also look at outsourcing as an option, said the experts. A fairly mature concept in advanced economies, outsourced DR is yet to gain traction in the Indian marketplace. According to Atul Hemani, MD of Omnitech InfoSolutions, "Outsourcing DR is always a better proposition than keeping it in-house as it helps you move from a CAPEX to an OPEX model. A timely proposition, our estimates suggest that organizations can save anywhere from 37% to 54% of their annual recurring costs by subscribing to an outsourced model of disaster recovery."

Despite the obvious advantages of outsourcing DR, Indian organizations seem a bit wary of the concept and, consequently the market is still at a nascent stage here in India.

When asked if he has ever considered outsourcing DR to a third party, LVB's Nair replied saying that while outsourcing DR does sound like a viable option for organizations, in LVB's case he'd much rather keep it in-house. "The nature of our business is such that data is of utmost importance to us. There are numerous security and compliance issues that could arise should we take it outside. Besides, by keeping DR in-house we believe that we can improve recovery point objectives (RPO) and recovery time objectives (RTO) for our critical business applications such as our core banking application and MIS. Plus keeping DR in-house also allows us to leverage our existing infrastructure that we have invested in over the years."

Similarly, Mankotia didn't seem too keen on the outsourcing proposition. Citing data security and service reliability concerns, he said that the service provider landscape in India had yet to mature to a stage wherein organizations could feel confident about letting outsiders handle DR.

Cloud DR

Having said that, even as Indian enterprises are deciding upon whether or not to outsource

DR, another option seems to have appeared on the horizon, namely Cloud DR. With virtualization technologies going mainstream and cloud storage technologies gaining wider acceptance among users, DR in the Cloud looks like a slam dunk. Here organizations can rent compute and storage resources hosted in remote, elastic Clouds and enable perhaps the most cost-effective and flexible protection and recovery of data.

According to Lakshman Narayanaswamy, Co-Founder and Vice President-Products, Sanovi Technologies, the emergence of the Cloud could potentially turn the classic DR approach upside down. "It can reduce your CAPEX by a great margin. Unlike in a traditional DR setup, with the Cloud one doesn't need to erect a DR facility and keep investing in it to continuously update the same. With Cloud DR one can allocate capacity and performance on the fly and pay only for the resources consumed."

He said that what was even better about migrating DR to the Cloud was that it also promised to increase the flexibility of DR configurations and as it was designed for remote management, even the speed of recovery was likely to go up, at least in theory. Narayanaswamy appeared a bit cautious since he felt that even with all of its potential, there still remain issues that service providers needed to iron out before organizations could migrate their DR onto the Cloud.

"As is often the case with any emerging technology, the Cloud is not yet foolproof," he said. "There are a few glitches that some early adopters have reported. These include security, access and in some cases recovery time. Plus, there have been some reports of latency and data movement issues. It is, therefore, advisable for enterprises to wait and watch this space for the time being and only take their DR to the Cloud once some of these issues have been addressed." ■

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