

Disaster recovery means 'resiliency': IBM

By: Rebecca Reid

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Canadian companies might want to reconsider their data backup-and-restore architecture as storage requirements increase, according to one industry insider.

Ralph Dunham, general manager, business continuity and recovery services, IBM Canada Ltd., said storage requirements are increasing 30 to 40 per cent each year, making it difficult for companies to restore operations from redundant data centres after a disaster.

Right now many organizations have redundant data centres so they have a backup in case their primary data centre is destroyed or suffers from some sort of failure. But Dunham said that as storage requirements increase, it might be impossible or impractical to keep two or more copies of each set of data.

For example, he said, one Canadian company (Dunham didn't name the firm) has about 76TB of data. Dunham said it's not reasonable to think that all this data can be copied and backed up to a redundant data centre in real time.

When asked about an alternate method, Dunham said companies could split the data among multiple data centres and load-balance the backup and restoration processes. The firm could use multiple data centres, perhaps four of them, and store 25 per cent of the data in each centre.

One way to do this would be to leverage grid computing, Dunham said. Grid means connecting numerous servers and putting software on top so the many boxes behave as one entity. The advantage — more processing power; grid allows users to link together more processors than usual.

Dunham said another way to cope with rapidly growing data is to purchase on-demand data storage services. However, vendors selling on-demand storage services usually offer them on a first-come, first-served basis. Companies that want preferential treatment have to be the first to shell out large amounts of cash to restore their data, Dunham said. If a disaster afflicts many companies at once, the firm that pays the most gets its data first.

"If you want top service, then you will have to pay a lot of money, and there will not be cost advantages to going with any commercial supplier," Dunham explained.

But with data storage needs multiplying rapidly, Dunham said organizations should stop thinking in terms of disaster recovery and start thinking in terms of resiliency. According to Dunham, a good portion of companies are prepared when it comes to data recovery and technology recovery, but resiliency from an IT perspective means also understanding what data and systems the company needs access to first.

For example, in the case of a network glitch at a bank, Dunham said customers might be satisfied knowing they can still withdraw and transfer funds but not access their transaction records for another day or so. "The whole key is to understand what you can and can't take away," he explained.

Corporations should also consider resiliency instead of disaster recovery because it's impossible to think of all the possible disaster scenarios. For instance, after 9/11 companies realized they had not considered the possibility of an airplane crashing into their office building.

"If I can't predict what is going to happen, then how do I plan for the unexpected?" Dunham said. "So the focus turned to surviving a disaster."

Surviving a disaster means having access to data, and with growing storage requirements, organizations need one thing — bandwidth.

Toronto-headquartered Seneca College uses Toronto Hydro Telecom's data services. The college's CIO Terry Verity said Seneca is now moving so much data through its 10 campuses that it needed a fibre connection.

He said Seneca chose Toronto Hydro Telecom because the firm can service the school's new location in Markham, Ont. cheaper than any other service provider could.

Seneca's Markham campus will be north of Steeles Avenue, which marks the barrier between the cities of Toronto and Markham. Sending data across that barrier with Bell would have been prohibitively expensive, Verity said. Bell charges more money to connect fibre across the Toronto-Markham border.

With Toronto Hydro Telecom, Seneca still has to pay a nominal fee but it is significantly less than the money it would have owed Bell, Verity said.

Ian Miles, president of Toronto Hydro Telecom, said 60 per cent of his firm's new business since 2002 has been for business continuity services. Right now, 35 per cent of Toronto Hydro Telecom's business is for data services and he predicts that eventually most of the firm's revenue will come from business continuity services.

Data isn't the only aspect of resiliency, Dunham said. Smart enterprises build resiliency into every aspect of their operations, including non-IT issues such as human resources and damage control.

"You can't buy a bucket of resilience. It's something that is built over time," he explained.

This means business processes and technology infrastructure need to be aligned with the organization's overall strategy and enterprises need to be able to respond to unexpected situations, rather than plan for particular disasters.