Cloud easing the pain of backup and DR

CITIC Telecom CPC changes the backup and DR game for businesses of all sizes

With data growth continuing to explode across all businesses and industry sectors, the need to find better ways to manage this growth in complexity and sheer data volume is becoming critical to businesses.

While the industry ramps up the hype around big data, one area which is often taken for granted is the key functions of backup, restoration and disaster recovery.

Even with long-established backup practices in place, today's new business demands mean that shorter backup cycles are desired and business continuity needs are becoming more complex and resource-hungry.

Challenge for all

For SMEs the problem is exacerbated as they have limited backup administration resources or even no dedicated IT staff or backup administrator to perform the backup tasks and thus, they may not conduct any backup.

"Even they do, they don't conduct it regularly and backup files are stored without any guidance. They are therefore open to data loss that can have a significant negative impact on their business," said Daniel Kwong, Senior Vice President, Information Technology and Security Services at CITIC Telecom CPC.

As for the mid to larger enterprises the running and maintenance costs of backup operations are rising due to the unprecedented levels of data growth, pushing many of

their existing backup environments to the breaking point. "Many are in need of upgrading or in many cases likely require complete new backup system deployments," said Kwong.

He noted that businesses are looking for more effective systems that can restore data and files faster than existing backup infrastructures which are struggling to keep up with the new demands.

Examples are becoming more common which highlight how loss of data and how traditional backup methods are struggling to meet modern business demand can severely impact a business.

Cost to business growing

In the UK, the Information Commissioner's Office has, since being given the power to issue civil monetary penalties starting in 2010, issued a total of 21 penalties. The largest penalty to date has been USD 255,000 which was imposed on a financial services company for losing two backup tapes.

UK media reported that the company's IT administrator noticed that two of the backup tapes appeared to be missing from the box in the communications room. The backup tapes, which were thought to be un-encrypted, contained backup data taken over two days and contained personal data relating to 20,000 current and former employees, as well as personal data relating to 8,000 agents. Bank account details, dates of birth, CV information and national insurance numbers were all contained within these backup tapes.

Cases such as these clearly show that inadequate backup policies and practices have the potential to cause great financial loss as well as reputational damage.

Backup technologies challenge

The other growing issue is that businesses are struggling with a lack of tools and capabilities to perform the thorough backup procedures that are required today.

According to Kwong, he notes many firms may not have the expertise to manage backup and may not perform any offsite backup. "Some enterprises may not consistently monitor and restore their backup for restore tests, while some of them perform server backup only, may not include desktop/laptop backup," observed Kwong.

Enterprises of all sizes are finding that traditional backup practices are not able to deal with new application technologies and new demands for greater speed and less resource-intense processes.

Some companies are required to back up data onto tapes or disks, which are then transported to other locations for off-site backup. Such conventional data backup is posed to risks of damaged and lost of tapes, or stalled machines, resulting in lost of all data. Also backup tools such as storage-level snapshots are not application-aware so lack of data consistency and the process of restoring from systems snapshots can be complex, added Kwong.

These issues around lack of resources and administration complexity also apply to DR operations.

"Companies today either don't

have much DR capability due to high cost and lack of resource or the ones that do have DR are looking for more cost effective ways to deliver a similar level of protection, said Kwong.

Cloud to the rescue

This is where cloud-based backup and DR are finding a sweetspot as the cloud promises to shift the cost to an opex model. Enterprises can manage the cost easier by leveraging cloud providers' resources, tools and expertise.

CITIC Telecom CPC is now providing full backup and DR-as-a-service to customers of all sizes. "Basically there is no storage limit on cloud, customers can maintain long-term data retention and the growing maturity of cloud services in Hong Kong is making this very attractive to customers today," Kwong added.

He stressed that cloud-based offerings can deliver lower cost, easier manageability, flexible monthly payment model and easy scalability.

However the shift to cloud requires careful consideration around choice of provider and clear understanding of the requirements of moving these processes and workloads to a cloud environment.

Kwong noted that for many SaaS cloud backup services, most cloud service providers will only offer standard backup packages without any choice on the backup schedule and technology. "Such services won't fit into many companies' existing backup policies," he said. "Moving to the cloud is not just cut and paste, it requires deep expertise to smoothly move the required backup data and applications entirely to the cloud without any data loss.

Smart CLOUD™ Complete Backup Portfolio

Critical factors for selecting the right provider are high levels of connectivity and security.

CITIC Telecom CPC offers the following key backup and DR services:

- **SmartCLOUD™ Safebox** - a tape replacement offsite backup and archive to the cloud solution, with encryption and de-duplication feature. It helps businesses to reduce expenses up to 80% compared with traditional tape and disks backup procedures/ activities
- **SmartCLOUD™ EPS (End-Point Backup Service)** - a SaaS backup solution for all on-site or off-site desktops, laptops and servers
- **SmartCLOUD™ BRR (Backup, Replication and Recovery)** - a managed backup and DR solution for physical, virtual and cloud environment

CITIC Telecom CPC offers a full range of backup and DR services to cater for a whole range of different backup scenarios and technology requirements. Unlike others in the industry it can deliver a total solution with end-to-end connectivity and security features. Kwong noted that companies can select to connect to the cloud through his company's TrueCONNECT™ MPLS VPN for ensuring reliability in connectivity and availability (99.999%).

In terms of security, CITIC Telecom CPC ensures that all data transmissions are encrypted for the highest levels of data security. "In addition, customers can further leverage award-winning managed security services for enhanced protection in the cloud," said Kwong. Computerworld Hong Kong names CITIC Telecom CPC as the best managed security services provider in its 2014 Awards.

The SmartCLOUD™ platform is built on world-class data centers certified with global standards ISO9001, ISO14001, ISO20000, and ISO27001. Kwong pointed out the company's seven Cloud Services Centers across APAC covering Hong Kong, Singapore, Taiwan, Beijing, Shanghai and Guangzhou, which work to ensure dynamic cloud-based backup performance across the whole region. Finally the offering is completed by the dedicated team of cloud professionals certified with VSP, VTSP, VCP.

	SmartCLOUD™ EPS	SmartCLOUD™ BRR	SmartCLOUD™ SafeBox
Size of Company and Internal IT Resources	From SoHo to mid-sized with no or limited IT resources	All sizes, with limited IT resources and backup operations knowhow	Mid- to large-sized, with in-house IT team and backup systems
Backup Requirements	Off-site only	On-site; off-site or both	Both on-site and off-site
Key Benefits	• Self-managed • In-File Delta technology for minimizing backup time and storage space • License-based	• Managed by CITIC Telecom CPC • Data compression and de-duplication • Full series of backup modes for various backup conditions	• Managed by CITIC Telecom CPC • Up to 80% cost reduction compared with tapes and disks • Comply with customer's compliance requirements
Backup Technology • Physical (P) • Virtual (V) • Cloud (C)	SaaS solution from • P to C • V to C	• P to C • V to C • C to C	• P to C • V to C