



"Even if, heaven forbid, my server room catches fire and all of my hard drives and tapes are destroyed, I will still have live, up-to-date data on ready-to-run servers."

— Justin Coulter, IT Operations Supervisor

Business Profile

Company Name:
Black Diamond Group

Headquarters:
Calgary, Alberta, Canada

Industry:
Business Services

Business Environment:

- Leases modular buildings, support equipment and other oilfield surface assets
- Revenue: \$264-million (CDN) – 2012
- Four operating divisions
- 17 locations across Canada, the United States and Australia

Implementation Team:
Black Diamond Group and
Vision Solutions

Critical Issue

Black Diamond Group depends on email communications to run its business. Likewise, if its data were unavailable it would be difficult to perform many of its business functions. Yet, natural disasters, hardware failures and lengthy system maintenance can happen to any company. Black Diamond needs a way to keep its operations running even if the worst should happen.

Results

- Minimizes the risk of downtime.
- Recovered in 5 minutes after a disaster.
- Keeps email communications flowing during disasters.
- Protects all critical data in real-time.
- Virtually maintenance-free.

Technologies

Software:

- Double-Take® Availability™
- Microsoft Windows Server 2008 R2 and Exchange Server

Hardware:

- 2 x 5 Dell PowerEdge R720 (5 primary, 5 backup)

Business Challenge

Black Diamond's IT operations include five Windows-based production systems that run file servers, Windows shares, Exchange Server and a Terminal Server and manage more than two terabytes of data. If those servers and data were unavailable, operations would be curtailed or possibly stopped. The cost to the business would be significant.

To eliminate this risk, Black Diamond needed a Disaster Recovery (DR) centre where it could store copies of its data. However, traditional backup techniques were not adequate. Nightly backups leave data that is created or updated during the day unprotected until the following night. Instead, the company needed a way to copy its data to the DR site in real-time.

Even that was inadequate. Copying data does not, alone, create a useable server. If that was all the company did then, after a disaster at the primary site, servers would have to be configured at the DR site and the backups, whether on tape or disk, would have to be loaded onto them. That process could take hours. Instead, Black Diamond needed a high availability (HA) solution that would maintain hot-standby backup servers at the DR site that were complete replicas of the corresponding production servers.



Solution

Black Diamond recently implemented Double-Take Availability to meet its HA and DR challenges. Double-Take Availability captures changes made to a production server and replicates them in real-time to a backup server. The result is a fully functional backup, with completely current data, that is ready to assume the production role whenever necessary. Because Double-Take Availability transmits only those portions of the data that have changed, this solution provides a practical way to keep a remote DR site up-to-date, without overloading communication lines. Taking advantage of this capability, Black Diamond maintains its DR centre about 20 kilometres away from its primary data centre in downtown Calgary.

Double-Take Availability has already proven its value in practice, not just theory.

Calgary is not particularly prone to natural disasters, but disasters can happen anywhere. In June of 2013, it was Calgary's turn when a major flood hit the city. Estimates of the damage across Calgary ranged from \$3-billion (CDN) to as high as \$5-billion. One of the flood's effects was to knock out Black Diamond's primary data centre.

When that happened, Black Diamond initiated a failover to its backup servers in the DR centre. Within about five minutes of pushing the button to launch the failover, operations resumed on the backup servers, without any loss of data.

The company ran on the backup servers for about two days. When the primary servers came back online, Double-Take Availability automatically resynchronized them with the servers at the DR site. Black Diamond then switched users back to the primary data centre and operations continued almost as if nothing had happened.

Justin Coulter, IT Operations Supervisor at Black Diamond, notes that Double-Take Availability is easy to manage. "Once the job is setup it's pretty much maintenance-free. I do weekly checks to make sure all of the data is coming over, but that's about it."

Installation was also fast and easy. Coulter estimates that it takes five to ten minutes to install the client and then five to ten minutes to set up the replication job, for a total installation time of no more than 20 minutes.

The support that Black Diamond receives from Vision Solutions is another benefit of Double-Take Availability. "I've never been on hold for longer than a couple of minutes and I've never had an issue that wasn't resolved on call one," said Coulter.



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