

Highlights from a recent webcast on database backup

BACK UP SQL SERVER MORE EFFECTIVELY AND EFFICIENTLY

An application-consistent snapshot captures the same data as a crash-consistent snapshot, but also captures the data in memory and all transactions in process.

Data is the lifeblood of the modern enterprise. Most apps are essentially useless without the data that drives them. However, technology is imperfect. It's virtually guaranteed there will eventually be issues that will crash or corrupt your database. Having the right tools and processes to recover from a data catastrophe as efficiently as possible

and resume normal operations can make or break your business.

Traditional Backup

You can perform complete backups of a database server or create images of the database at a certain point in time. There are two primary issues with trying to use a traditional backup solution for a

database. Databases are dynamic and restoration can be tedious.

A database is typically fluid when it's in use. There are new transactions being processed and data being constantly written to the database. To capture a valid backup using a traditional image or full backup solution, you would have to first shut down the app down or take the database offline to keep it in a consistent state until the backup is complete.

Conducting a full restore consumes an inordinate amount of storage capacity. Using restore for data recovery is also too slow. Time is money and slogging through the data restoration process can cause significant downtime and loss of revenue.

Crash-Consistent Snapshot: A snapshot is a more effective and efficient way of backing up a database at a specific moment in time. Not all snapshots are created equal, though. A crash-consistent snapshot works fine for some types of data, such as backing up file or print servers. However, it's not an effective means of backing up a database because it doesn't capture data in memory or any pending I/O operations.

Application-Consistent Snapshot:



SQL Server doesn't write directly to the database by default. Instead, it writes data to log files. VSS (Volume Shadow Copy Service) triggers pending operations to flush from memory and commit the log file contents to the database files. Using log files helps prevent any corruption in the event of a crash while active data is being written to the database.

An application-consistent snapshot captures the same data as a crash-consistent snapshot, but also captures the data in memory and all transactions

"Another advantage of database-consistent snapshots and thin clones is the ability to generate multiple copies for maintenance tasks."

backups without the complexity of external backup software. The database-consistent snapshots or thin clones TDPS captures occupy a nearly zero footprint and only take seconds to complete regardless of database size.

Using Tegile Data Protection

tional amount of storage for the database replica.

Shorten the ETL

ETL refers to the extract, transform, and load data warehousing tasks. DBAs must be able to effectively extract data from various sources,

transform that data to a proper format or structure suitable for querying or analysis, and load it into a target database. The ability to shorten the ETL helps DBAs execute more efficiently.

Data is critical to running a business. Most organizations can't afford unnecessary

downtime. It's important to back up data so it can be restored in the event of a crash or catastrophe, but how the data is backed up is almost as important. Tegile Data Protection Service helps back up SQL Server databases more effectively and restore data more efficiently.

"Using Tegile Data Protection Service helps DBAs quickly recover lost data and resume normal business operations."

in process. That makes it significantly easier to restore the database to operational status.

Tegile Data Protection Service

For more complex database environments, however, even an application-consistent snapshot may not be sufficient. The snapshot must also be consistent across all LUNs where the database resides—a database-consistent snapshot.

Tegile Data Protection Service (TDPS) provides frequent and instantaneous production database

Service helps DBAs quickly recover lost data and resume normal business operations. Using database-consistent snapshots and thin clones lets agencies roll backward or forward in the data stream without needing to store or restore the database. This approach is more efficient in terms of both storage capacity and time.

Another advantage of database-consistent snapshots and thin clones is the ability to generate multiple copies for maintenance tasks. DBAs can run tasks off of the clones—such as testing, reporting or other functions—without using a propor-

SPONSORED BY:



For more information visit,
www.tegile.com