idera ™

TOOLS FOR SQL SERVER ™

Contents

SQL Server Data Recovery Made Easy with Idera SQLsafe

Innovative features help DBAs recover from disaster faster than ever before
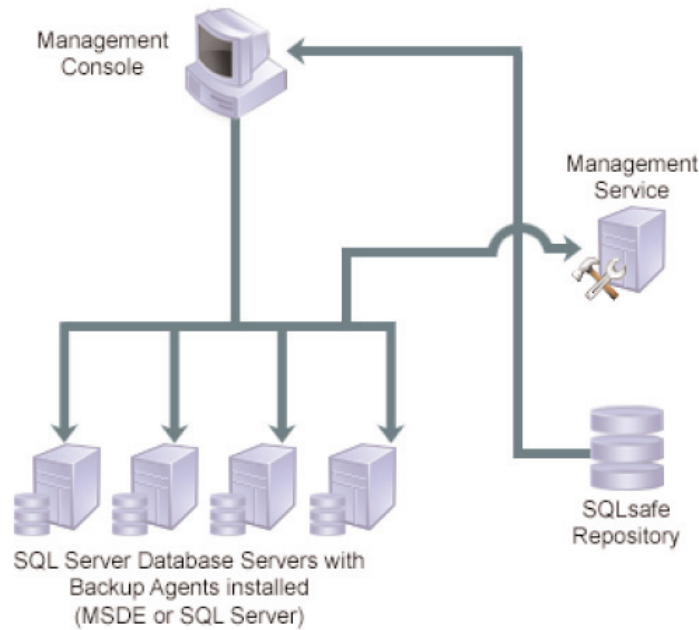
Introduction

Let's face it, we live in a world where business users expect their applications to be available 24x7 in order to sustain operations and grow revenues. Increasingly, these applications rely on SQL Server databases, making availability of SQL Server a business critical concern. When a database goes down due to hardware or software failure, data corruption, or any number of other causes, every minute of downtime can mean serious money lost. This is a time that every DBA dreads - a time when everyone is watching and his recovery processes are put to the ultimate test. It is vitally important that the DBA is able to restore the database as quickly as possible to minimize business interruption.

Idera SQLsafe was designed with these issues in mind. The product architecture and recovery features provide a straightforward, easy to use, fast recovery solution that saves valuable time – and money – during emergency recovery situations. This paper gives a brief overview of these features and the value they provide to organizations of all sizes.
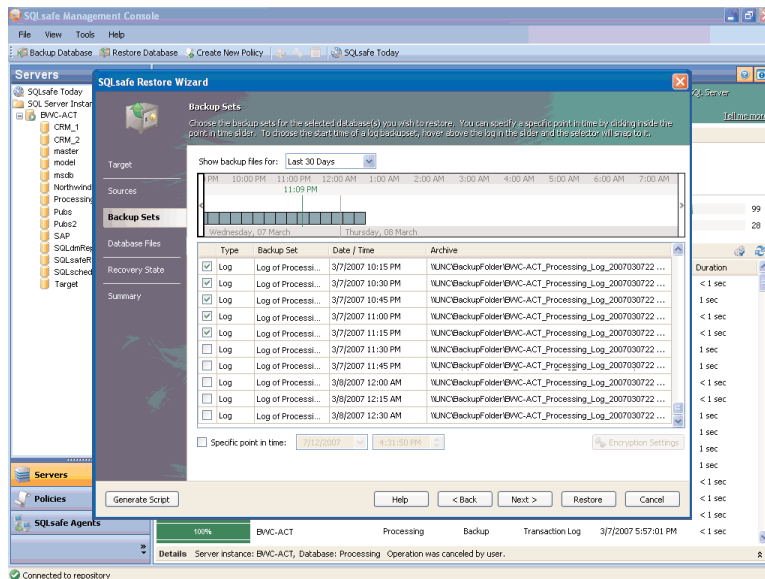
SQLsafe Architecture

SQLsafe was built from the ground-up to be a robust, fault-tolerant enterprise backup and recovery solution. To achieve this goal, the product was designed such that each SQLsafe component can operate independently in the event of a system or network failure. This architectural advantage is essential to ensure the integrity of critical backup and recovery operations. SQLsafe has proven to be extremely reliable and effective in mission critical SQL Server environments, with individual installations that execute over 10,000 backup operations per day.

To simplify and speed database recovery, as well as enable reporting and analysis capabilities, SQLsafe stores real-time and historical information on backup and restore operations in a central database. The central repository provides a wealth of metadata about backups, including when they occurred, what the backup archive files were named, where they are located, what LSNs are in each backup archive, etc. All of this information is then used by SQLsafe to quickly and efficiently locate the necessary files to complete restore operations.
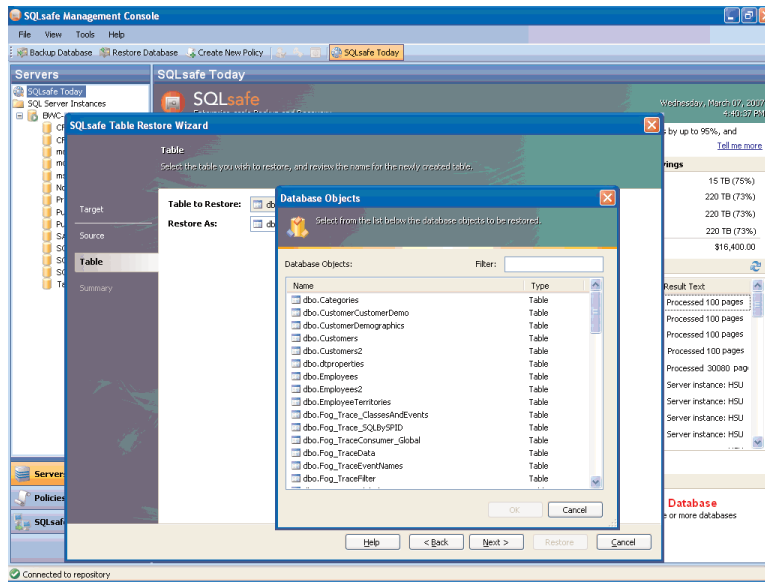
IntelliRestore™

SQLsafe offers an innovative IntelliRestore feature that provides automated selection of backup archives to reduce the likelihood of error during the stressful time of an emergency database recovery. Using the information stored in the repository, SQLsafe allows the DBA to select the databases to recover, the recovery state, as well as a particular recovery point in time. Everything else is done automatically - SQLsafe selects the backup archives needed to restore to the particular point in time, determines where the archives are stored on disk, and applies them in the correct order to successfully complete the restore. This saves a lot of very valuable time and reduces human error during recovery situations.

Object Level Recovery (OLR)

Another time-saving restore feature in SQLsafe is Object Level Recovery (OLR). OLR enables the DBA to recover specific database objects (such as a table) rather than the entire database. This feature saves valuable time in recovery situations by restoring only the objects needed rather than the entire database, which could take hours for a very large database.

SQLsafe's object level recovery solution was designed to operate as efficiently as possible to save time and system resources during restore operations. SQLsafe does not require any additional disk space on the server in order to execute the object recovery. The table data is read from the backup archive file and an in-memory bulk-copy insert is performed to create the new table in the database as efficiently as possible. Other object level recovery solutions require sufficient free disk space to store the entire table during the process of object recovery. This can be problematic, particularly when recovering large tables.

Additionally, the object map needed to execute recovery of a specific table in SQLsafe is generated during the backup process, rather than during the restore. This may add a slight increase in backup time and size for databases where object level recovery is enabled, however, this design minimizes the time required during recovery, when speed is absolutely critical. Other solutions create this object map during the restore process, which adds to the recovery time.

Conclusion

Idera SQLsafe is designed to perform at its best when the DBA needs it most – in an emergency recovery situation. The robust architecture and time-saving recovery features such as IntelliRestore and Object Level Recovery greatly simplify and accelerate the recovery process. For these reasons, SQLsafe is the backup and recovery tool of choice for thousands of SQL Server instances worldwide.