



 Tip Sheet

# 6 SQL SERVER BACKUP AND RECOVERY BEST PRACTICES

*“Dealing with backups is always one of the biggest headaches in IT, so not having to worry about it lets us focus on other things.”*

*Adam Kailian, IT Systems Administrator at BuildGroup*

Databases contain the operational and transactional lifeblood of any business. Managing, securing, and protecting that data in your SQL Server is critically important, but, unfortunately, that data is continuously at risk. Meeting the increasing demands on IT for business continuity, from applications' uptime to data durability, is no small feat. Your SQL Server is a complex ecosystem of data, transaction logs, and system databases, and, for clean restoration, all these working parts have to be taken care of and protected.

To minimize data loss and corruption, as well as time spent recovering your database, you need the best backup and restoration plan possible. Here are six essential practices for executing an effective SQL server backup and recovery implementation.



### **Decrease the Time Your Backups Take**

Your database backup can run at the same time as your server, which is a huge plus. But full backups need to happen daily, and the heavy processing power these use during the backup window means the performance of end users and SQL Server jobs can be negatively affected. To decrease the time it takes to back up your database, there are two ways you can handle this situation: keep your backup window short by using data compression, or back up to disk.



### **Use a Variety of Backup Methods**

There are different backup methods you can make use of: full backups, incremental backups, and differential backups. A full backup is just what it sounds like — a backup of every file in the entire database, which should happen daily. An incremental backup is a record of the changed data since the previous backup (of any type). And a differential backup is the changed data since the last full backup. Implementing these last two alongside a full backup is the strongest combination for maximum database protection.



### **Back Up Your Transaction Log — A Lot**

A transaction log backup is a collection of the logs that record database changes, which, in case of a failure, will make restoration quicker and more complete and ensure database recovery up to a specific point of time. Many organizations commonly plan for transaction log backups every 15-30 minutes, but you can set these from every 5 minutes to every 2 hours depending on your company's needs and how busy your database is.



### **Back up Your System Databases**

Any good backup and restoration plan has to include the Server System databases, your master, model, and msdb. The master contains all of the system-level information for an SQL Server — the logins, linked servers, endpoints, etc., so leaving it (or any of your other system databases) out, is a no-no. Again, depending on your level of database activity, system databases should be backed up weekly at a minimum.



### Don't Forget the System Partition

The system partition isn't technically part of the SQL System, but it's what keeps your queries efficient, and backing it up is a critical part of your wider strategy. Make sure to update your system partition with every system or configuration change at the least.



### Practice Good Database Security Regularly

Stay vigilant and consistent with your overall database security. Access to the database backup folder should be restricted only to those who need it, such as the SQL service account and the DBAs. Additionally, check your security patches regularly and stay up to date on all fronts — this means the Host OS, the physical hardware, and the SQL server. Finally, it's a good idea to frequently test your strategy by following through on restoring and recovering your backups — in the case of an emergency, you don't want to rely on a system you only think works.

## How Cloud Backup Provides the Ideal SQL Backup Solution

As companies have grown, so has the amount of data they need to store and protect, and it's starting to overwhelm the typical, often manual, backup systems.

Cloud storage can be ideal for SQL Server backup: It's an affordable, less-hassle solution to on-site backup, even for the complex and active infrastructure of enterprise companies. Druva Phoenix provides practical and efficient backup that scales, reduces risk of data corruption, and is cost-effective, all from a unified console, while eliminating the error-prone labor intensiveness of more manual approaches. Druva Phoenix is:

- **Practical** — With a centralized administrator dashboard, DBAs can have a deep understanding and visibility into the servers they manage.
- **Inclusive** — Servers can be configured to back up to the locations closest to them — wherever in the world that [happens to be](#).
- **Versatile** — Druva Phoenix works with both physical and [virtual environments](#).
- **Time and money-saving** — Along with making buying and maintaining your own physical servers a thing of the past, Phoenix lets you pay only for what you use, with the potential to achieve 60% lower TCO.

## Druva SQL Cloud Backup

Druva Phoenix delivers data availability and governance for enterprise SQL infrastructure with a unique cloud-first approach — combining high-performance, scalable backup, DR, archival, and analytics to simplify data protection, improve visibility, and dramatically reduce the risk, cost, and effort of managing today's complex information environment.

To learn more about keeping your SQL database security and recovery efficient, unified, and up to date, visit <https://www.druva.com/solutions/cloud-backup/>

## About Druva

Druva is the global leader in Cloud Data Protection and Management, delivering the industry's first data management-as-a-service solution that aggregates data from endpoints, servers and cloud applications and leverages the public cloud to offer a single pane of glass to enable data protection, governance and intelligence--dramatically increasing the availability and visibility of business critical information, while reducing the risk, cost and complexity of managing and protecting it.

Druva's award-winning solutions intelligently collect data, and unify backup, disaster recovery, archival and governance capabilities onto a single, optimized data set. As the industry's fastest growing data protection provider, Druva is trusted by over 4,000 global organizations, and protects over 40 petabytes of data. Learn more at [www.druva.com](http://www.druva.com) and join the conversation at [twitter.com/druvainc](https://twitter.com/druvainc).



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