



# SQL Server Performance Tuning

Is your SQL Server database application running slowly, either overall or certain areas? If so, then you are likely to benefit from performance tuning. Slow performance can be caused by bad database design, inefficient T-SQL database queries, poorly implemented indexes, lack of server resources or incorrect server configuration.

You may only notice slow performance after accumulating more and more data. Even if data volumes are relatively static, database performance may also get worse over time. This is usually because of fragmentation in your database and can be sorted out by tuning indexes.

Ecatenate can offer SQL Server Performance Tuning to ensure your SQL Server databases are performing optimally. Our SQL Server Performance Tuning can be carried out on-site or via VPN (Remote Desktop).

## Why do I need SQL Server Performance Tuning?

### *Meeting Demands*

Your users need faster access to their data. Your business needs to provide information on customers or process orders within a certain timeframe and your database application is not delivering.

### *Scalability*

The volume of data you need to work has outgrown your existing database application's design.

### *Return On Investment*

Confidence that you are getting the best return for your investment in server hardware and software. For instance, rather than spending more money on server resources, could your databases be optimised to make better use of existing server resources?

### *Reduce Costs*

Reduce staff idle time due to poor database application responses with performance tuning.

## What's Included?

We can help you identify and solve general server-wide problems. We can also help you identify and solve very specific problems caused by inefficient T-SQL database queries or poorly implemented data access source code.

Our three-stage approach is to analyse, recommend and implement. After our analysis we will provide you with a comprehensive report with our recommendations and discuss them with you. Some of our recommendations may have implications for your applications. We will only implement the recommendations you are happy with.

As a guide, our performance tuning would include:

### *Analyse*

- An on-site visit or VPN (Remote Desktop) access
- Check server resources - memory, CPU, disk space
- Check server load for bottlenecks - memory, CPU, disk space, network
- Check SQL Server configuration options - memory, CPU, disk, torn page detection, auto close, recovery mode, data and log file growth settings
- Check network bandwidth utilisation
- Check Data Access source code - Access, Jet, ODBC, ODBCDirect, OLEDB, ADO, ADO.NET
- Check for slow-running T-SQL database queries
- Check for inefficient database queries
- Check database structure - normalisation, keys, referential integrity, data types
- Recommend & Implement

### *Recommendations Report*

- Server configuration recommendations - memory, CPU, disk space, network
- SQL Server configuration improvements - memory, CPU, disk, configuration options
- Service packs (operating system and SQL Server)
- Database configuration improvements
- T-SQL query optimisation
- Improve Data Access source code - Access, Jet, ODBC, ODBCDirect, OLEDB, ADO, ADO.NET
- Server data processing vs. client data processing
- Indexes improvements
- Database structure improvements - normalisation, keys, referential integrity, data types undertaking any support contract.

**Contact us for a free quotation on 0141 3346034 or at [sales@ecatenate.com](mailto:sales@ecatenate.com)**



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