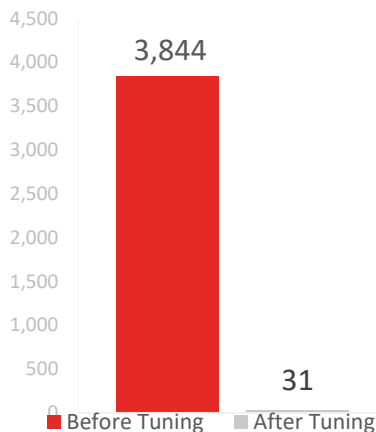


Performance Tuning Report

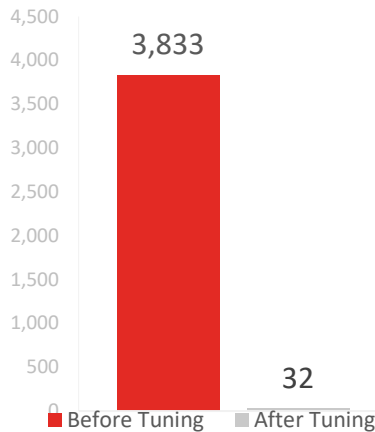


CPU

CPU is **124X**
times faster

OR

12,400%
CPU improvement

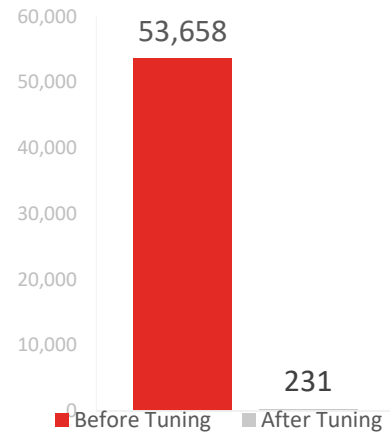


Speed

Speed is **120X**
times faster

OR

11,978%
Speed improvement



Disk (Reads)

Disk is **232X**
times faster

OR

23,229%
Disk improvement

Description:

Problem: Stored procedure that is run hundreds of times per hour is taking a long time.

Change: Multiple changes were made to code inside the procedure

TextData	CPU	Reads	Duration
Not tuned			
exec "dbo"."spGetAlert" @UserName=N	3844	53658	3833
exec "dbo"."spGetAlert" @UserName=N	188	25799	193
exec "dbo"."spGetAlert" @UserName=N	4656	65655	4654
exec "dbo"."spGetAlert" @UserName=N	3250	45807	3287
exec "dbo"."spGetAlert" @UserName=N	4156	61039	4187
exec "dbo"."spGetAlert" @UserName=N	4375	66738	4367
tuned			
exec "dbo"."spGetAlert_mv" @UserName=N	31	231	32
exec "dbo"."spGetAlert_mv" @UserName=N	31	162	26
exec "dbo"."spGetAlert_mv" @UserName=N	15	167	24
exec "dbo"."spGetAlert_mv" @UserName=N	31	225	31
exec "dbo"."spGetAlert_mv" @UserName=N	0	151	43
exec "dbo"."spGetAlert_mv" @UserName=N	15	214	28

Technical Background:

Most SQL Servers bottleneck on Disk access (or disk “reads”).

It’s not CPU or RAM – which most customers often suspect first.

And that makes a lot of sense. Here is why.

Inefficient queries scan (or read) lot of data. Data read in is stored in RAM. As more data is read in, “older” data is pushed out from RAM. If there isn’t enough RAM to keep ALL data in memory (which is often not possible), SQL Server has to read from disk – and that is the slowest operation SQL Server can do.

When query can be tuned to read 10 rows vs 10M – less CPU and RAM automatically are necessary. Therefore, tuning for less disk “reads” is often the primary goal.

To the end user nothing is more important than Speed (or Duration of the query) though.

Tuning to reduce CPU/RAM resources are helpful too.

When queries are tuned to need less CPU & RAM, it means that same server now has more capacity. Which means that same server can process double or triple the load. Which means it extends lifespan of the same server. Which means hardware upgrades can be pushed out further into the future.

If you want your SQL Server to go faster, let us know! We would love to have you as a client!