SQL 2012 Admin, Part 4 of 5: Server Optimization

page 1

Meet the expert: Chris Bell, MCITP, is an 18-year SQL Server veteran for both business intelligence and application development providing solutions for businesses, organizations, and individuals. He is the founder and CEO of WaterOx Consulting, Inc., a provider of remote SQL Server consulting and services. Chris is also the founder and current President of the Washington DC chapter of PASS and a member of the Board of Directors for CPCUG. Chris also frequently attends and presents at PASS events around the country, sharing his passion for all things SQL Server. In 2012, Chris was one of 5 finalists in the world for Red Gate’s Exceptional DBA Award.

Prerequisites: This course assumes that students have working experience with SQL Server 2005 or 2008; basic relational database concepts (e.g., tables, queries, and indexing); general knowledge of XML, Transact-SQL, and a fundamental understanding of networking and security concepts.

Runtime: 01:19:01

Course description: In this course we are going to go through a few topics covering some basic optimizing and troubleshooting in SQL 2012. We will discuss Trace flags which are used to alter the behavior of SQL Server. Sometimes this is useful, sometimes it is dangerous and sometimes it is just bizarre what they do. We will review the use of trace flags to capture deadlock information so we can more efficiently troubleshoot the cause. Then we will look into blocks, a common issue in SQL server and go over how to determine which process is blocking others and how to resolve it. Next we will then go through a series of DMVs that are quite useful in optimizing and troubleshooting SQL Server. I even share some DMV based queries I use all the time to check indexes fragmentation and usage along with a query to identify the most expensive queries in your database.

Course outline:

Trace Flags
- Introduction
- Trace Flags
- Trace Flags - Enable/Disable
- Trace Flags - Monitoring
- Trace Flags - Deadlocks
- Trace Flags - Useful
- Trace Flag - Other
- Demo: Trace Flags
- Demo: Deadlocking
- Demo: Log File
- Summary

Dynamic Management Views
- Introduction
- Dyanamic Management Views
- DMV - Execution Related
- DMV - Index Related
- DMV - Disk Stats & OS/Hardware
- Demo: DMVs
- Demo: DMV Functions
- Summary

Extended Events
- Introduction
- Extended Events
- Demo: Extended Events
- Demo: Sessions
- Summary

Blocks and Deadlocks
- Introduction
- Blocking
- Blocking - Detecting
- Blocks - Killing Process
- Deadlocks
- Demo: Identifying Blocking
- Demo: Blocking and DMVs
- Demo: Deadlocks
- Summary