

Microsoft SQL Server Monitoring with eG Enterprise



According to a recent Explore Group survey, Microsoft SQL server is one of the top database servers in use today.

Any performance degradation or unavailability of Microsoft SQL servers can severely impact the performance of IT services that depend on them, causing customer dissatisfaction and lost revenue.

eG Enterprise allows database administrators and IT operations teams monitor, diagnose and report on Microsoft SQL server performance. Administrators can accurately diagnose the cause of slowdowns: is it due to poor queries, missing indexes, insufficient memory, or storage latency? They can also identify areas where the database subsystem can be optimized to deliver better performance to applications.



eG Enterprise has been incredibly useful and has far exceeded our expectations. Metrics relating to SQL and missing indexes have provided critical information that we had long suspected were performance issues. Now we have the information to address specific performance challenges

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Monitor all Aspects of Microsoft SQL Server Performance

Get Comprehensive Insights into Database Space Usage and File Activity

- Monitor space usage by file groups; determine when the free space in a file group drops below acceptable limits
- Track usage of the tempDB; determine if it is running out of space
- Report on databases that are using excessive transaction log space
- Identify if the I/O activity is not balanced across all data files and if additional data files are required to balance the I/O activity

COMPONENTS	NETWORK AVAILABILITY (%)	CPU USAGE (%)	MEMORY USAGE (%)	LOG READS (KB/SEC)	LOG WRITES (KB/SEC)	USER CONNECTIONS	SERVICE RUNTIME (MIN)
SQLSRV12000-VWEL-LSPT	100	46.96	64.62	218.22	993.72	119	9470
SQLSRV12000-VWEL-LOGS433	100	12.26	79.70	2.23	3.50	51	116
SQLSRV12000-VWEL-LOGS432	100	12.89	74.91	3.50	3.50	8	116
SQLSRV12000-VWEL-LOGS431	100	3.80	87.46	3.50	3.50	86	116
SQLSRV12000-VWEL-LOGS430	100	3.96	86.64	0	4.66	82	116
SQLSRV12000-VWEL-LOGS429	100	0.64	91.09	3.50	1	89	116
SQLSRV12000-VWEL-LOGS428	100	0.68	86.26	0	11.75	84	116
SQLSRV12000-VWEL-LOGS427	100	0.68	85.54	1.25	3.25	26	116
SQLSRV12000-VWEL-LOGS426	100	41.43	89.46	0	0	77	116
SQLSRV12000-VWEL-LOGS425	100	1.28	82.11	11.50	1	78	116
SQLSRV12000-VWEL-LOGS424	100	0.77	89.78	0	3.50	134	116
SQLSRV12000-VWEL-LOGS423	100	2.22	84.26	0.50	1.50	4	116
SQLSRV12000-VWEL-LOGS422	100	1.09	86.64	0	14.68	82	116
SQLSRV12000-VWEL-LOGS421	100	0.64	91.09	3.50	1	89	116
SQLSRV12000-VWEL-LOGS420	100	0.68	86.26	0	11.75	84	116
SQLSRV12000-VWEL-LOGS419	100	0.68	85.54	1.25	3.25	26	116
SQLSRV12000-VWEL-LOGS418	100	41.43	89.46	0	0	77	116
SQLSRV12000-VWEL-LOGS417	100	1.28	82.11	11.50	1	78	116

Troubleshoot Slow Database Queries with Detailed Analytics

- Monitor active transactions to all the databases and execution plan for slow queries
- Identify top queries by I/O activities, CPU usage, memory usage
- Track missing and unused indexes and identify ways to optimize the database for best performance
- Monitor fragmentation level of database tables and indexes, and be proactively alerted to situations when online/offline tuning of the database is required

SPID	LOGINAME	SPRNAME	COMMAND
576	sa	tempdb	ALTER TABLE tempdb.sys.sysfiles SET (INDEXID=1) WITH (INDEX=ON, ONLINE=OFF)

TABLE	INDEXES	PROGRAMS	TOTAL I/O	INDEXES	DELTA I/O
tempdb.sys.sysfiles	1	tempdb.sys.sysfiles	100	1	100

Audit Accesses to the SQL Database Servers

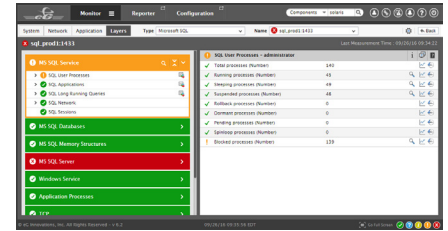
- Track the workload to the database server. Monitor transaction rates to each of the databases
- Report on all active application/user connections to the database server and queries being processed

Database Type	Health of Key Performance Indicators	CPU	MEM	IO	LOG	CON	RTN
SQLSRV12000-VWEL-LSPT	Good	47%	65%	218	994	119	9470
SQLSRV12000-VWEL-LOGS433	Good	12%	80%	2	3	51	116
SQLSRV12000-VWEL-LOGS432	Good	13%	75%	3	3	8	116
SQLSRV12000-VWEL-LOGS431	Good	4%	87%	3	3	86	116
SQLSRV12000-VWEL-LOGS430	Good	4%	87%	0	4	82	116
SQLSRV12000-VWEL-LOGS429	Good	1%	91%	3	1	89	116
SQLSRV12000-VWEL-LOGS428	Good	1%	86%	0	12	84	116
SQLSRV12000-VWEL-LOGS427	Good	1%	86%	1	3	26	116
SQLSRV12000-VWEL-LOGS426	Good	41%	89%	0	0	77	116
SQLSRV12000-VWEL-LOGS425	Good	1%	82%	11	1	78	116
SQLSRV12000-VWEL-LOGS424	Good	1%	90%	0	3	134	116
SQLSRV12000-VWEL-LOGS423	Good	2%	84%	0	1	4	116
SQLSRV12000-VWEL-LOGS422	Good	1%	87%	0	14	82	116
SQLSRV12000-VWEL-LOGS421	Good	1%	91%	3	1	89	116
SQLSRV12000-VWEL-LOGS420	Good	1%	86%	0	12	84	116
SQLSRV12000-VWEL-LOGS419	Good	1%	86%	1	3	26	116
SQLSRV12000-VWEL-LOGS418	Good	41%	89%	0	0	77	116
SQLSRV12000-VWEL-LOGS417	Good	1%	82%	11	1	78	116

- Track if there is a database connection leak that is leaving orphaned connections
- Report on top queries to the database server by application/client, categorized by CPU, memory and I/O time used

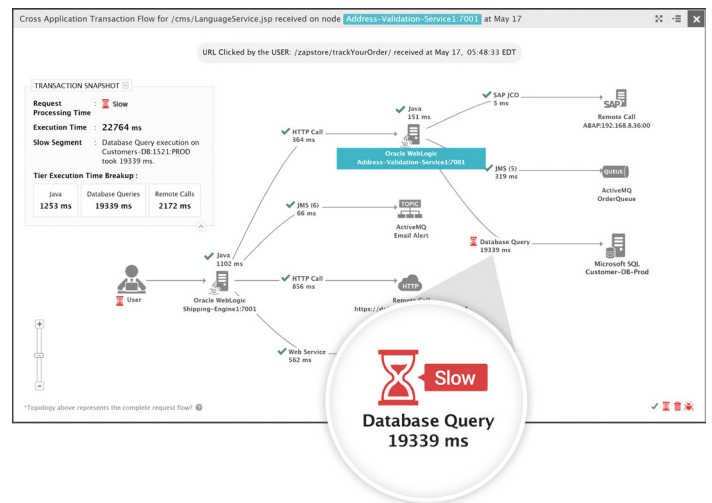
Identify Lock and Wait Events that can Slow Query Processing

- Track all connections to the database server by state and identify connections that are waiting for other connections
- Report on root-blockers - i.e., queries that are blocking other queries. Identify blocking SPIDs, programs running them and queries issued
- Get alerted to deadlocks during query processing and identify the queries responsible
- Monitor all types of waits happening on the database server



Monitor SQL Server Performance from an Application Perspective

Monitor performance in the context of the applications using the database server. Without requiring any agents on the database servers, trace all application accesses and report on slow queries and exceptions during database processing. When a specific web page or URL is slow, get answers at your fingertips: how much time was spent on application processing vs. query processing and which queries took time. Using empirical data, eliminate finger-pointing between application development, application operations and database admin teams.



Key Benefits

- ✓ Get proactive alerts based on a variety of SQL database server KPIs
- ✓ Quickly identify where the hot-spots in the infrastructure are, based on auto-correlation of IT service performance with database, server, and network performance
- ✓ Provides trending and service level reports so you can assess the current capacity of your infrastructure and plan for future expansion.
- ✓ Eliminate finger-pointing by isolating problems in specific tiers, so the respective administrators can be involved in firefighting

About eG Innovations

eG Innovations is dedicated to helping businesses across the globe transform IT service delivery into a competitive advantage and a center for productivity, growth and profit. Many of the world's largest businesses use eG Enterprise to enhance IT service performance, increase operational efficiency, ensure IT effectiveness and deliver on the ROI promise of transformational IT investments across physical, virtual and cloud environments.