

 WHITEPAPER

Why is Database Performance Analyzer a Smart Investment for Your Team?

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FASTER APPLICATIONS – IDENTIFY WHAT IS SLOWING YOUR APPLICATIONS

Think about the last performance problem you tried to solve: how many wasted work hours?

An application taking more than a few seconds to respond is as good as a down application. Slow is the new down. Application performance is now mission critical. Considering about 70% of application performance problems are related to the database, it's important to equip your team with Database Performance Analyzer (DPA), the most powerful tool to analyze performance and find the root cause of slow applications. Applications can be built faster when issues are spotted earlier with DPA.

Often, when applications are slow, we find it comes down to one or two. Query Performance Analysis in DPA is designed to provide a one-click, one-view solution for answering, "Why is this query slow?" DPA brings query waits, query-level advisors, inefficient table data access, query statistics, blocking, plan changes, and resource metrics into one view, so you can quickly see exactly what's driving the bad performance.

CONTINUAL DATABASE OPTIMIZATION BASED ON ACTUAL PRODUCTION WORKLOAD

Are you throwing resources at performance issues?

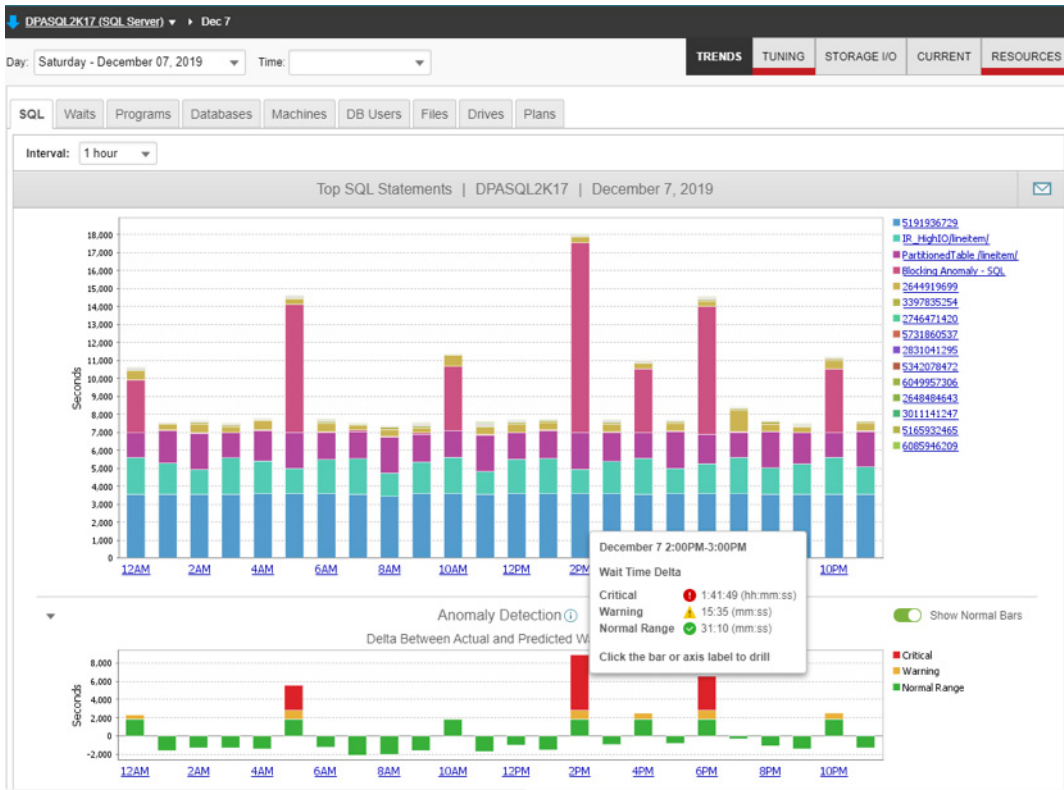
You can overcome many performance problems by enhancing resources, by tuning the workload, or some of both? However, as companies move workload into the cloud, those resources can become more expensive. A better, more sustainable approach would help make sure your workload is tuned, so you're scaling resources for good reasons—more processing needs of the business, not just supporting inefficiencies. DPA Table Tuning Advisors continually surfaces workload inefficiencies, placing a big "X marks the spot" to tune in your database environment.

HELPS PREVENT DOWNTIME AND QUICK PROBLEM RESOLUTION ROOT CAUSE IN TYPICALLY 3 – 4 CLICKS

What is the cost of downtime (or a slow application) to your business, per hour?

Identify problems before they escalate. DPA focuses on performance analysis, often identifying problems before a traditional monitoring system will show a yellow light. With baselines and anomaly detection powered by machine learning, the amount of time wasted looking at unproblematic alerts is erased because the algorithms in DPA get smarter with time. Wait time analysis, along with custom reports and alerts allow your team to stay on top of application performance. DPA helps lower the need for support and provide faster turnaround on issues.

When an application is down, your team will be able to quickly respond to IT issues and, within typically three to four clicks, can identify most problems in a database system or in the systems supporting it. Often, customers who have been trying to find the root cause of performance issues for months, use DPA’s advanced correlation capabilities to find those lurking problems in a few minutes.



DPA’s machine learning baseline and anomaly detection. DPA’s machine learning baseline and anomaly detection.

COST OF OWNERSHIP

At \$2,045 per instance (for Oracle® SE and SQL Server®) plus 20% maintenance per year, the cost of DPA per month over three years is over \$204. *How much is your team's time worth? How many hours per month would DPA have to save your team to make it a worthwhile investment?*

COMPLEMENTARY TO TRADITIONAL MONITORING TOOLS

How many hours does your team spend trying to find the root cause of problems across tools?

DPA isn't a traditional monitoring tool. It's an advanced performance analysis tool with a unique approach: Multi-Dimensional Performance Analysis™, an evolution of the wait-time analysis methodology we pioneered. DPA is often used as a complementary solution to traditional monitoring tools (i.e., Oracle OEM or SCCM), code-centric APM tools (i.e., SolarWinds® AppOptics™), and database monitoring tools (i.e., SolarWinds Server & Application Monitor). DPA is designed to provide DBAs, DevOps pros, and developers with exceptional insight into database performance. Find, analyze, and optimize with DPA.

INCREASED TEAM PRODUCTIVITY

How much time does your team spend writing each script, maintaining it, and interpreting the information?

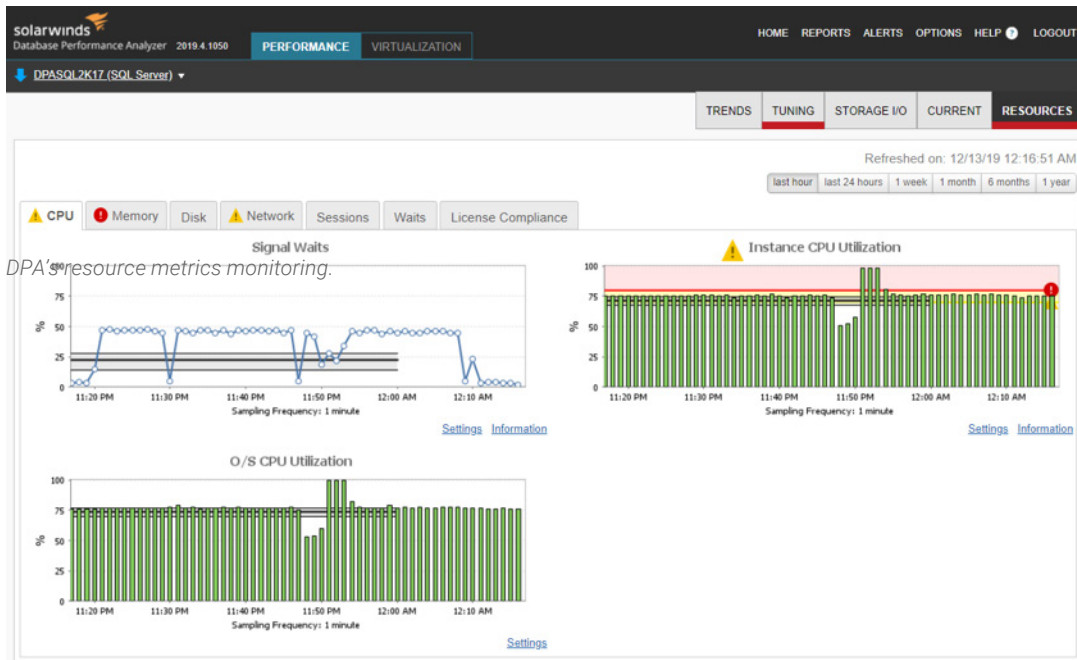
Alerts and reports can help make it easy for the team to stay on top of things and spend less time writing and maintaining scripts. DPA's unique approach allows the team to quickly identify what is slowing an application, and drill down to root cause in a few clicks. Multi-dimensional performance analysis does the complex work for you, presenting a simple UI to help quickly identify where trouble comes from. DBAs can support more applications and broaden their impact with the increased effectiveness they can gain from using DPA.



SMARTER HARDWARE INVESTMENT AND BETTER BUSINESS DECISIONS

Should you buy SSD drives or a bigger server?

DPA can help you understand exactly how much time applications spend reading and writing to disks, waiting for the network, waiting for CPU, or waiting in a suspended state or activity preventing it from processing, so you don't have to guess. You'll know where you need to invest to accelerate application performance—or, if no new hardware is needed, if the bottlenecks can be resolved by fixing or improving code or database/system configuration.



DPA's resource metrics monitoring.

VIRTUALIZATION – SCAPEGOAT OR ROOT CAUSE?

Get deep visibility into database instances running in VMware Virtual Machines

When the team is not fighting fire-drills is the best time to optimize your systems and prevent future problems. Even when your application is running well and monitoring systems show all green, there are still opportunities to improve. DPA continuously analyzes application performance and pinpoints areas that can be optimized, reducing bottlenecks and improving efficiency - which can result in considerable cost savings in the future and avoidance of performance problems or downtime.



DPA's resource metrics monitoring.

PROACTIVE OPTIMIZATION, NOT ONLY REACTIVE TROUBLESHOOTING

Root-cause analysis plus expert advice

The best time to optimize your systems and prevent future problems is when the team isn't putting out fires. Even when your application is running well and monitoring systems show all green, there are still opportunities to improve. DPA continuously analyzes application performance and pinpoints areas to be optimized, reducing bottlenecks and improving efficiency—which can result in considerable cost savings in the future and avoidance of performance problems or downtime.

The built-in tuning advisors offer expert advice and show you the expected performance improvement.

Table Tuning Advisor on Table: CONTSS1_100

SQL: 3209991669 [View SQL text](#)
 Wait times: 9s Executions: 71 Reads per Exec: 820 Rows per Exec: 144 Reads per Row: 6

INEFFICIENT SQLS ON THIS TABLE

SQL ID	Inefficient Steps	Percentage
3209991669	1 inefficient step	100.0%

SQL Server's index recommendations

No recommendations found

Inefficient table/index access steps discovered by DPA

Step 10: TABLE SCAN Estimated number of rows: 16,944

Current Table Information: CONTSS1_100
 Database.Schema: [dpa_cubes].[ignite] Size: 1,376 KB Rows: 18,074 Partitioned: N

EXISTING INDEXES (1)

Index Name	Size	Type	Unique	Disabled	Fragmentation
IX1_CONTSS1_100	704 KB	NONCLUSTERED	No	No	

TABLE COLUMNS (8)

Column Name	DataType	NOT NULL	No default
KH	bigint	NOT NULL	No default
H	bigint	NOT NULL	No default
SORTS	bigint	NULL	No default

TABLE TUNING BEST PRACTICES

- ❌ Table does not have a primary key (PK)
 A PK provides a way to uniquely identify a record and is necessary to ensure data integrity. A PK is also required to join the table.
- ✅ All foreign keys (FK) indexed
- ✅ No overlapping indexes
- ✅ No wide indexes
- ✅ Table has at least one index

1 of 5 table tuning best practices not fulfilled

Table has no defined primary key (PK)

DPA's machine learning baseline and anomaly detection.

SAFE TO USE FOR EVERYONE WHO NEEDS TO SEE HOW AN APPLICATION PERFORMS

Down to the second granularity and low overhead

Down-to-the-second data collection, agentless architecture, and 1% or less overhead give you deep visibility without the worry of impacting databases performance. And since DPA cannot make changes to a database, it's safe to use in production environments and can be used safely by every team member. Developers writing code can see the impact of their code changes in production. Application teams can also see where applications are spending time across database operations.

What do other application professionals and DBAs think about DPA?

[Read independent research facts here](#)



For additional information, please contact SolarWinds at 866.530.8100 or email sales@solarwinds.com.

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