AI Impacts on the DBA: SQL Server Monitoring with Datavail TechBoost

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Host **redgate**

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Services

Datavail

18+ years of IT experience

Proven track record in serving global clientele,
leading cross-cultural teams through a combination
of strategic thinking, interpersonal and analytical
skills.

/in/mehjoshi

datavail.com

Datavail at a Glance

Delivering a superior approach to leveraging data through application of a tech-enabled global delivery model & deep specialization in databases, data management, and application services.
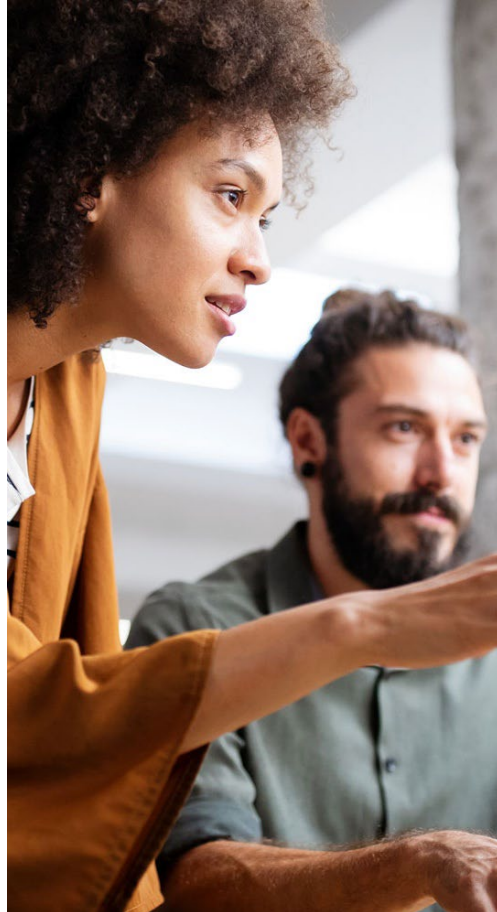
18+ Years

building and operating mission critical data and application systems

ORACLE CLOUD · aws · Azure

$25M Invested

in IP that improves the service experience and drives efficiency

datAvail ServiceBoost® · datAvail TechBoost®

Global Team

1,300 Employees

staffed 24x7, resolving over 2,000,000 incidents per year

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Put the SQL Pieces Together

Fill out your session evaluation form for a chance to win a **LEGO** set.
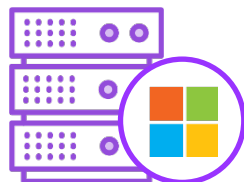
TechBoost™ – Current Deployment Statistics

Start-ups through Fortune 100 customers depend on TechBoost™ every day to improve operations and reduce costs.
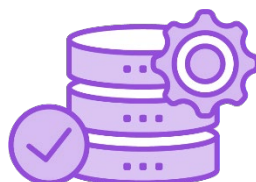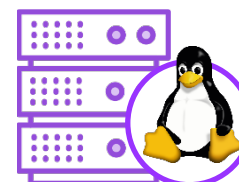
400+ Customers

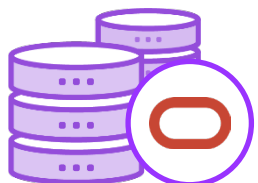**5,000+** Windows Servers

5,000+ SQL Server Instances

100,000+ Databases

10,000+ SQL Jobs

1,000+ Linux Servers

1,000+ Oracle database instances

4,000+ Cloud databases

400+ AWS RDS Instances

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TechBoost™: From Insight to Action

Datavail's **AI-driven solution** enhances **database and application availability, accelerates incident resolution, and reduces operational costs**. It integrates with existing tools to provide predictive insights and automated incident management.

A **Datavail service offering**

Supports **on-prem & cloud** technologies, including PASS
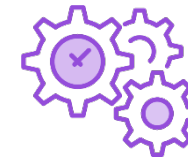
Centralized automation engine reduced need for human intervention

Single pane of glass for all workloads

Audit and services reporting for **compliance**
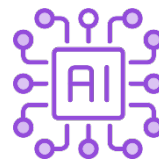
Carnac AI engine continuously improves issue resolution

Customizable workload templates for quick setup

TechBoost™ helps us predict future service impacts

Integrated into our **ITSM platform** and used by our **247x7x365 global teams**

Quarterly updates add new reports, automations, and optimizations

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"In 2025, the average DBA manages over 300% more data than they did five years ago — with the same headcount."
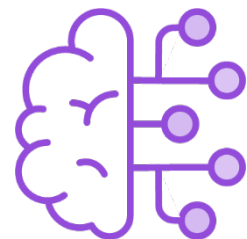
AI isn't coming for the DBA's job. It's **coming to** save it.

SQL Server Management is Changing.

AI is **redefining** the DBA's role.

The modern **DBA** is managing **more data, more environments, and more noise** than ever before.

AI-driven efficiency is now essential. It's the only way to **keep pace with scale and complexity.**

TechBoost™ brings AI into incident management and optimization, moving from **reactive firefighting to predictive, proactive operations.**

What we're sharing **today isn't theory.** It's what we've **implemented at enterprise scale over 5,000+ SQL Server managed instances**

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Three Areas Where AI Adds Measurable Value

Root Cause Identification

The TechBoost RCE explains why incidents happen, not just that they happened.
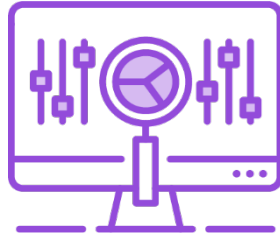
Optimization Insight

Highlights tuning, performance, and consolidation **opportunities that were previously hidden →** smarter decisions, higher ROI.

Best Practice Consistency

Every incident follows Datavail's best practice runbooks; TechBoost™ enforces enterprise-grade standards 24×7.

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Smarter Alerts. Faster Fixes.
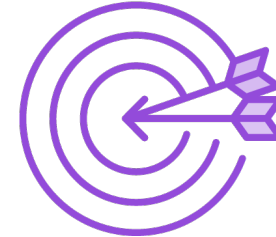# Continuous Learning.

1
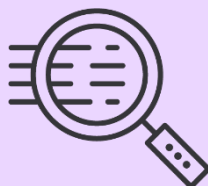
Detect

Monitors surface potential issues across SQL, Windows, and Cloud.

2

Diagnose

AI RCEs analyze context, correlate data, and determine the root cause.

3

Deliver

Tickets arrive preloaded with insights, reducing resolution time by up to 50%.

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Root Cause Engine

From Alert to Insight

When an issue is detected, TechBoost automatically generates an RCE report that's attached to the ticket, preloaded with context and diagnostics.

Empowers the DBA

Each RCE surfaces the "why" behind the issue, highlighting contributing factors and potential resolution paths.

Accelerates Resolution

By automating investigation into root causes, teams spend less time chasing symptoms and more time solving problems, optimizing critical systems, and preventing risk.

RCE reports transform alerts into actionable intelligence, giving your team a head start on every incident.

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Example: Job Execution Details RCE (SQL Server)

Identifies failed or delayed SQL Agent jobs in real time

Runs AI-based analysis on the job log to pinpoint cause

Surfaces contributing factors

Provides guided remediation steps to DBAs through the TechBoost ticket.

TechBoost AI Analysis

This section highlights AI-generated recommendations based on incident patterns and system metrics. All sensitive data is sanitized using top-notch heuristic and database-driven methods to ensure no confidential or company information is shared outside TechBoost. The insights help identify root causes, suggest optimizations, and reduce recurring issues. They are designed to complement DBA expertise and improve overall system health.

Overview
- There are multiple blocking sessions identified, with session 189 being the primary blocker.
- The longest wait time recorded is 1129 seconds, indicating significant contention.
- Blocking patterns include various lock types, primarily LCKMS, which suggests shared locks causing delays.
- The blocking chain shows a mix of SELECT and unknown operations, indicating potential issues with query design or resource contention.
- The environment is running SQL Server version 16.0.4200.1 on Windows 10.0.26100.

Most Likely Root Cause(s)
- ⚠ **Long transactions**: Session 189 has been holding locks for an extended period, which may indicate uncommitted transactions or inefficient queries.
- ⚠ **High contention**: Multiple sessions are waiting on the same resources, leading to increased wait times and potential deadlocks.
- ⚠ **Query design issues**: The presence of SELECT statements in the blocking chain suggests that queries may not be optimized, leading to unnecessary locking.

Potential Remediation Actions
- ✂ *Immediate Fixes*
  - Investigate session 189 for long-running transactions and consider committing or rolling back if appropriate.
  - Review the queries executed by blocking sessions to identify any that can be optimized to reduce locking.
- 🛡 *Preventive Actions*
  - Implement query tuning and indexing strategies to minimize locking contention.
  - Regularly monitor and analyze blocking patterns to proactively address potential issues before they escalate.
  - Consider adjusting transaction isolation levels for sessions that do not require strict consistency to reduce locking overhead.

- **Eliminates blind troubleshooting**

- **Full context** on job failures

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Example: Blocked Resource Details RCE (SQL Server)

Detects blocking chains and deadlocks across SQL workloads.

Analyzes lock hierarchies and identifies which process is holding up others.

Recommends targeted resolution: termination, index tuning, resource allocation

Captures full context in the incident record for trend analysis.

TechBoost AI Analysis

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- **Cuts remediation time** by 50%

TechBoost™: Enhanced Incident Reporting

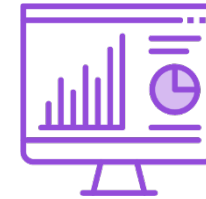**Consolidates alerts and events** into one consistent reporting view.

Automatically **categorizes incidents** by type, severity, and environment.

Surfaces trends that **highlight recurring issues** or emerging risks.

Provides real-time dashboards for operational and executive visibility.

Enables data-driven conversations about performance, stability, and improvement.

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Enhanced Incident Reporting

4UP - Incident Category Trend (Last 90 Days)

Short name	WEID			Count
	WEID005053			
	YearMonth			
	2024-02	2024-03	2024-04	
Blocking	6	30	8	44
Check-In		2	4	6
CPU	2			2
Database Status	3	4		7
Disk Space		8	4	12
Error	3	3	1	7
Full Backup missing	114	167		281
Instance memory issues		1	2	3
Job Failure	8	49	7	64
Log file matched	19			19
Long Running Process		1		1
Service Status			2	2
SQL Instance Restarted	1	3		4
System Space Issues		1		1
Count	**156**	**269**	**28**	**453**

4UP - Count by Priority

Priority	WEID	Total
	WEID005053	
1 - Critical	25	25
2 - High	167	167
3 - Moderate	61	61
4 - Low	23	23
Total	276	276

4UP - Incident Trend PROD Vs Non-PROD (Last 90 Days)

YearMonth	WEID			Count
	WEID005053			
	Environment Type			
	Non-Production	Production		
2024-02		31		131
2024-03		32	218	250
2024-04		12	7	19
Count		144	256	400

4UP - Trend of Incidents (Last 3 months)

Legend: 1 - Critical, 2 - High, 3 - Moderate

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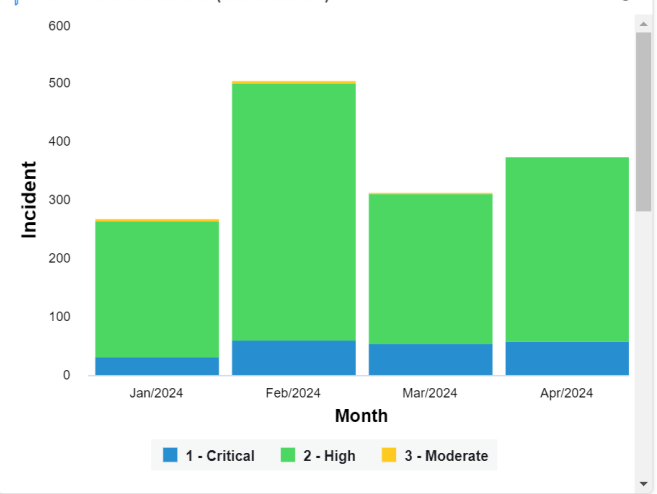
Client Portal

- **Executive Confidence:** The **dashboard** surfaces system health, compliance status, and risk in a single dashboard so you can make faster, better-informed decisions.

- **Actionable Insight:** On-demand **report insights** highlight end-of-support risks, performance trends, and resource usage, empowering teams to act proactively instead of reactively.

- **Simplify & Save:** Retire unnecessary monitoring tools and servers, consolidate reporting, and lower costs with a **single, unified portal.**
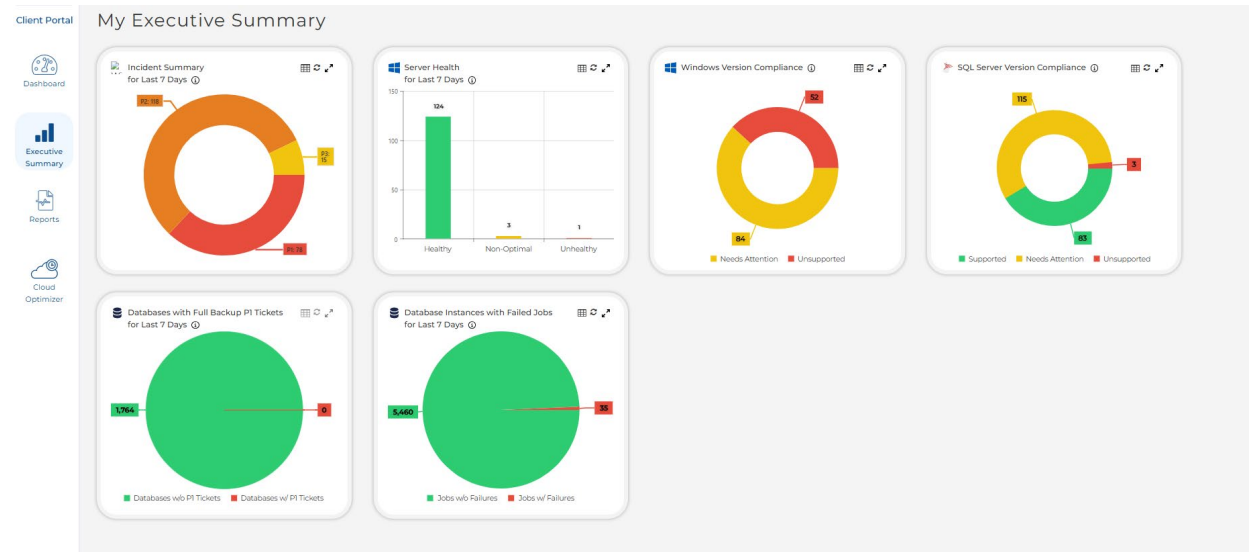
Client Portal: Executive Dashboard Insights

Compliance and Lifecycle

SQL Server Version Status

Shows supported vs. unsupported builds

Windows Version Summary

Flags OS versions nearing end-of-support

Operational Assurance

Database Job Status

Highlights failed or delayed jobs

Full Backup Status

Confirms backup health & continuity

Transparency and Health

Incident Summary

Snapshot of open/resolved issues

Server Health

High-level view of system health

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Client Portal: On-Demand Reports

Compliance & Risk Management

Value: Reduces compliance risk, avoids unplanned costs, and supports smoother audits.

- **SQL Server Patch & Support Compliance** and **License Compliance**

Efficiency & Optimization

Value: Improves system performance, accelerates applications, and lowers infrastructure costs.

- **Index and query analysis**

Performance & Optimization

Value: Keeps business applications running smoothly, prevents downtime, and ensures IT teams stay proactive instead of reactive.
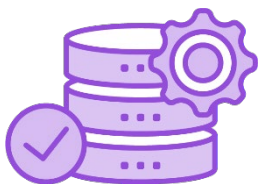
- **Health Check reports** (SQL Server, Azure SQL, RDS) **and CPU/Disk Growth insights**

Continuity & Assurance

Value: Strengthens business continuity and reassures executives that core data is protected.

- **Backup Status** and **Job Status** reports confirm that the safeguards are in place if something fails.
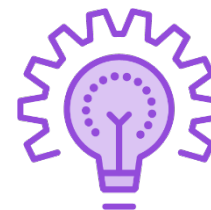
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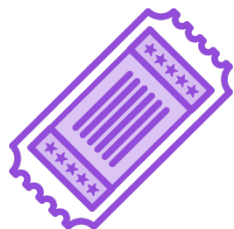# TechBoost™ in Action: Real Outcomes

5,000+ SQL Server instances managed

40–60% reduction in alert noise

30–50% faster mean-time-to-resolution

Thousands of AI-enhanced tickets generated monthly

Hundreds of reports run each month

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TechBoost™ Improves Productivity and Eliminates Waste

Client: Logistics and Transportation Industry

Challenge: A logistics client was receiving more than 10,000 alerts per month, most of them redundant or false. Critical issues were being delayed or overlooked.

How TechBoost Helped: TechBoost suppressed over 80% of non-actionable alerts, ensuring engineers only saw what mattered.

Value Delivered

Productivity improved, critical issues were resolved faster, and executives gained confidence IT could scale without adding headcount.

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TechBoost™ Protects Business Continuity

Client: Global Retailer

Challenge: A major retailer's Always On Availability Group became unhealthy. Standard "off-the-shelf" tools failed to detect the issue, leaving failover at risk.

How TechBoost Helped: TechBoost proactively identified the unhealthy state and escalated the issue before it caused disruption.

Value Delivered

Business continuity was preserved, downtime prevented, and executive confidence in IT resilience reinforced.

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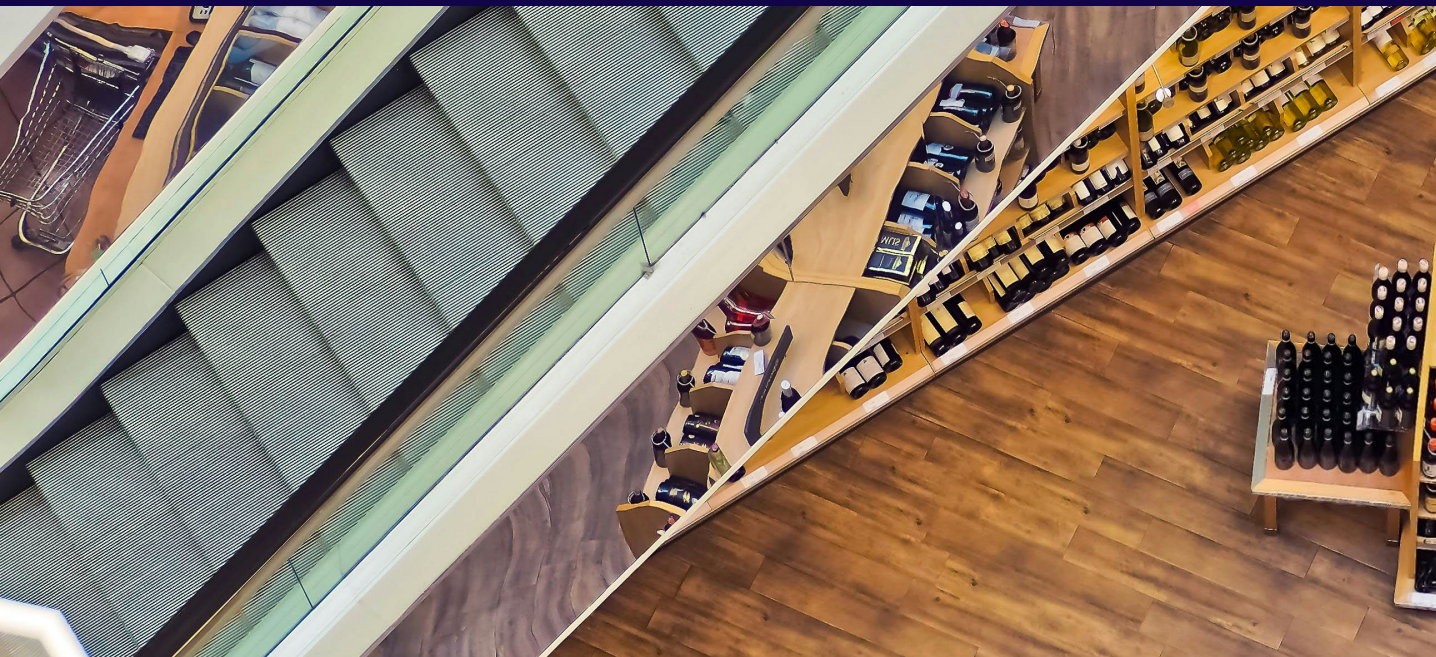
Supported Platforms

SQL Server	On-premises, AWS EC2 and Azure VM
	Azure SQL Database
	Amazon RDS
	Azure Managed Instance
	Amazon Aurora MySQL
MySQL	Amazon RDS
	Azure Flexible Server
PostgreSQL	On-premise
	Amazon Aurora & RDS PostgreSQL
	On-premise Linux and Windows
Oracle	Amazon RDS
	EBS
Windows	On-premise, Amazon EC2 and Azure VM
Linux	On-premise, Amazon EC2 and Azure VM
Data Warehouse	AWS Redshift, GCP Big Query (Forthcoming)
Data Pipeline	Azure Data Factory

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Thank you

Message for the end of the presentation goes here

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in **/in/mehjoshi**

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