



## AGIO DATABASE MANAGEMENT



All organizations store critical information in the form of data; and that data is your competitive edge—it's what differentiates you. Maintaining this data to enhance performance, ensure availability, and protect it from cyber-attacks is critical and requires experienced management. Agio Database Management provides 24x7x365 monitoring and management of your database environment, agnostic of technology (SQL/NoSQL) and deployment (on premise, cloud, relational database service [RDS]), and is fueled by our proprietary IT governance framework. As a part of our solution, you receive a named DBA lead, who drives this framework to ensure the continuous tuning of your databases, as well as the implementation and review of cybersecurity best practices against your company's industry-specific compliance mandates. You get coverage, proactive database optimization, and cybersecurity protection—all in one.

### WHAT YOU GET

We begin your onboarding with a SQL server evaluation (per instance), whereby we review your database environment and make recommendations according to best practices. Once we've cleaned up the environment, the true management begins.

Your DBA lead ensures your databases are backed up properly and oversees the replication process on a routine basis. We then closely monitor and report on capacity parameters daily to identify potential disk space issues before they occur, helping to prevent application failure and data corruption. In addition to our DBAs, we have in-house networking and server specialists on hand to identify and resolve issues—so even if the source of the issue is not clear-cut between network, operating system, or database, we own the problem right through to resolution.

Finally, when it comes to the security of your database environment, we keep track of and manage all changes, including installing security patches. All of our database operations are fully audited for complete transparency, and we implement—then manage—the following best practices for you:

- Encrypt SQL databases with Transparent Data Encryption (TDE), ensuring your data at rest is secure
- Encrypt endpoints in database mirroring and availability groups to eliminate man-in-the-middle attacks
- Leverage SQL 2016's "Always Encrypted"
- Tighten, monitor, and maintain surface configuration security of SQL servers using SQL policies
- Grant all user accounts SQL permissions via Active Directory groups and database roles only

### **Typical, Day-to-Day Issues**

- Perform daily check of SQL Server functionality
  - Verify nightly backups, maintenance jobs, and other agent jobs completed successfully
  - Verify replication, mirroring, and Tlog shipping is in-sync
  - Verify database and server health before production starts
  - Proactively check disk space and database growth to prevent issues
- Query performance issues
- Troubleshoot job failures
- Identify and resolve causes of CPU spikes, high I/O, and memory failures
- Troubleshoot authentication issues
- Investigate server performance issues
- Troubleshooting and configuring replication
- Troubleshooting always-on and mirroring
- Investigate disk space issues
- User and application permissioning
- Identify resource-expensive queries; recommend solutions for improvement
- Collaborate with third-party software vendors to resolve issues or implement upgrades

### **Project Requests**

- Perform SQL server migration
- Refresh databases
- Create custom reports and notifications (i.e. indexes rebuilt or reorganized, stats updated, etc.)
- Develop honeypot table
- Apply patching and upgrades

## NOSQL

### Daily Activities

- Perform NoSQL installations
- Examine alerts from monitoring tools and view operating system event logs and NoSQL logs; respond to
- NoSQL-related errors
- Perform changes to data as specified in work orders from the PC lite system
- Respond to disk space alerts and take action by shrinking logs and coordinating database file movement to reduce disk utilization
- Monitor any missed backups and investigate the cause of failure to enable relevant actions
- Manage, design, and implement database backup, recovery, and high availability (HA) strategy
- Provide administrative capabilities for Linux system and maintain NoSQL databases
- Provide DB schema design, performance tuning, and capacity planning
- Maintain NoSQL instances and infrastructure for a massive, high-throughput transactional system

## THE ROI

When Agio takes on your database environment, we're focused on three things: increasing your productivity, reducing your cost, and decreasing your cybersecurity risk. If we're not able to achieve these three goals, then it's not worth outsourcing to us—or to anyone else.

### Productivity

With our elite database team, you get instant access to experts across multiple technologies ranging from Microsoft SQL Server to Sybase, Windows, and NoSQL production databases, including MongoDB, MySQL, and Postgres. This means your ramp-up time to adoption of new technologies is significantly reduced, resulting in improved ROI and time to transition. If you have an in-house database administrator, they can now focus on strategic initiatives while Agio handles the day-to-day database operations.

### Cost

You need a minimum of 7 in-house DBAs to achieve true 24x7x365 coverage; with our per database cost model, we're significantly less than that. We also maintain an average time of 6 minutes to access one of our database engineers so our service doesn't feel like outsourcing. Finally, there are no hidden or fixed costs to lock you in. We believe you'll want to stay with us, all on your own.

### Cybersecurity Risk

Our industry-leading platform provides real-time insights into the configuration and utilization of your databases, and our proprietary IT governance framework enables us to identify and review configuration changes, detect unexpected transactions (i.e. user directly modifying data in database), and remediate known vulnerabilities. All of this activity fortifies the cybersecurity of your database environment—making you look smart for selecting a partner who knows how to manage and protect your infrastructure.

## WHY AGIO?

### #OneAgio

When you select Agio, you're investing in a relationship with everyone who's a part of this firm. Our teams operate in a symbiotic relationship, based on deposits and withdrawals, that creates a vehicle for delivering more than just service. We deliver an experience that reaffirms to our clients we've got them covered. From clean, concise implementations; to consistent support backed by automation and tools that work the way they're supposed to; to value-add reporting; to accurate, timely invoicing; and content on the latest IT and cybersecurity trends, we bring the full breadth and depth of our talent to bear. We deliver #OneAgio.

For more information, please contact:

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