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7 Competitive Advantages of a Managed Database Service

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A few years ago, it was common to ask:

"Should we <u>really</u> migrate to a managed database service?"

Today, that's like asking:

"Do we <u>really</u> want a competitive advantage?"

With the evolution of cloud computing and the growing need for efficiency and risk mitigation, managed cloud database services are essential if you want a competitive edge.

Managed databases (a.k.a. Databases as a service, or DBaaS) streamline operations and management, pure and simple. Rather than agonizing over backups, redundancy, or ensuring that configurations are properly implemented, you can focus on making your applications perfect. And instead of worrying about continually scaling your databases as you grow, you can focus on rapid development and prototyping.

In the past, a database seemed like the last thing you would want to move off-premise. But now, if you don't migrate to a managed database service, you're sacrificing your competitive edge across the board: growth, creativity, efficiency, speed, security, and cost savings. And, you could be losing your velocity from your engineering teams by self-managing your databases.

In short, a managed database is no longer a helpful solution — it's an absolute necessity in today's competitive marketplace. Let's take a look at some of the competitive advantages of using a managed database service.

Effortless administration

Self-managed databases require in-house engineers who can set up and monitor the database. Not only is it a time-consuming and expensive process, but it's also repetitive, and requires long-term maintenance and manual upgrades.

Migrating databases is usually painful with many unknowns. Approaching a move to a managed database is less so given-existing configuration templates allowing a more streamlined deployment and setup. The provider takes care of managing backend responsibilities such as data replication, failover, and backups for business continuity.

Best of all, you don't need a team of high value resources to execute database administration operations. Anyone with minimal database management knowledge can get data-driven applications and websites up and running in no time.

This will leave your top talent with more time, allowing them to focus on creative engineering solutions and pioneering new strategies — the stuff that can't be automated.

Simple scalability

Scalability isn't simple for self-managed databases — it's a complex juggling act. Usage is always growing or shrinking; with it, throughput requirements become a moving target.

Companies generally struggle to keep up with such changes, leading to a degraded user experience.

With managed databases, scalability is like flipping a switch. Scale up? Scale down? It's as simple as pushing a button. You can also take it one step further with auto-scale, which can automatically adjust your cluster tier and storage capacity in response to your cluster usage.

Database scalability goes beyond making sure you have enough speed. You need to take cluster scale, performance scale, and data scale into account. Imagine a company that needs to scale up from 0 to 1,000 nodes globally, all while ensuring that scaling operations are conducted in accordance with wider organizational goals — e.g., maintaining data governance.

With a managed database service, scaling is never a concern. You can even adjust your ability to scale on an as-needed basis, ramping up when business surges or ramping down to be most efficient.

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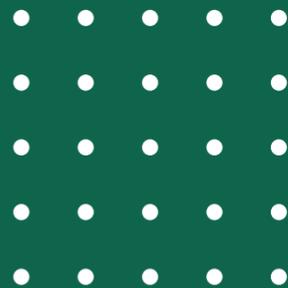
High availability

If a platform like Instagram or Reddit goes down for 15 minutes, everyone is up in arms. With the expectations of users today it seems even the platinum standard of 5 9's (99.999% uptime) may not be good enough; constant, 24/7 uptime is essential if your app is consumer-facing or serving businesses. Any downtime will result in your users flocking to your competitors.

A managed database ensures high availability. You can have around-the-clock monitoring with a 24/7 support team that can assist you, alongside failsafe processes in case something catastrophic happens.

The truth is, most companies with in-house solutions don't have good disaster recovery and business continuity plans. That means a single cataclysmic event can cripple your operation without warning.

Managed databases offer geographic distribution of your data to guarantee that your company can keep running, even if one of your server locations goes offline.

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Optimized performance

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Superior performance comes standard with a managed database. In order to stay competitive and keep up with the expectations of consumers, your provider is sure to offer top-of-the-line technology that is constantly being upgraded. You only pay for what you need, and your performance is optimized for your use case.

But the performance benefits don't end there. Most enterprise-level managed databases offer toolkits that allow you to do a deep dive audit into your operations. This automated service helps you identify issues with your current database and makes recommendations on how to fix them.

This performance evaluation also helps discover the issues that may impact you down the line. That way, you can correct potential inefficiencies before they start to impact your performance. It's like having an automated, external tech audit every second of every day.

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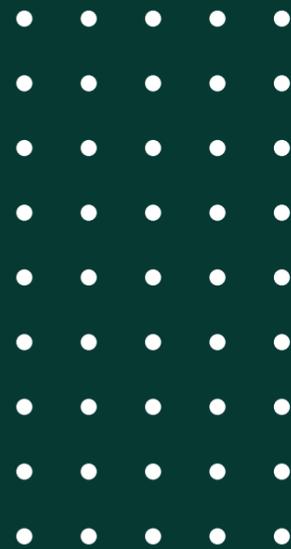
Security and compliance

Enterprise-level security comes standard with enterprise-ready managed databases. Strict authentication and authorization ensure that users' actions are restricted by their roles.

End-to-end encryption ensures that data is encrypted on disk, in-flight as it traverses the network, and in use in memory and logs. The best managed databases allow granular database auditing and reporting to be available out-of-the-box. Moreover, the breadth of their exposure to use cases and potential threats makes their expertise hard to match.

Maintaining compliance is where managed databases can truly help the security team. Typically, ensuring compliance is a tremendous undertaking, but managed database service providers usually handle compliance at the data layer in a way that's transparent to their customers.

Furthermore, global operations need to adhere to regional compliance requirements like GDPR. With a managed database, everything is plug and play, easy to set up from day one.

You're automatically compliant at the database layer with common industry standards, right out of the box, with minimal effort on your part.

Monitoring

Without proper monitoring, you're flying blind. And while most companies employ hardware-level monitoring, many fail to identify what they should or shouldn't be monitoring on the database level. Certain processes are overlooked, while others are unnecessarily scrutinized.

The best managed databases come equipped with monitoring best practices built-in. Yes, this helps you save time and effort, but more importantly, it can provide newfound visibility and allow you to make better decisions about your data and where to optimize. You can also integrate with other monitoring and alerting solutions for visibility (like Slack, Outlook, SMS, etc.).

Most database providers will have pre-built dashboards that surface key metrics. The services that go the extra mile provide granular and customizable monitoring so you can get visibility into all potential risks. Even more valuable, you can proactively monitor your database, meaning you can get early signs of potential problems before they start to impact your business. This can protect against the potential loss of both time and money.

Cost savings

Some companies see the fee for managed database services and conclude that running their infrastructure in-house will save on their bottom line. The problem with this line of thinking is two-fold — it overlooks both tangible and intangible database costs.

Managed databases actually save on the following tangible costs:

- Engineering resources
- Monitoring
- Backup and data recovery
- Hardware upgrades and optimization

The intangible costs, however, are where the real savings live. Human capital is your most expensive asset. It's not just about hiring and training people — it's about being able to capitalize on human creative potential.

Creating and maintaining an in-house database is a tedious and time-consuming expenditure. If you can free up your engineers, they can direct their energy towards rapid development and focus on solving creative problems.

Furthermore, you'll have better systems in place for monitoring and testing your data. A managed database will help you put out fires before they happen and create new efficiencies, which will lead to a more streamlined operation and more profitability.

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Consider migrating to MongoDB Atlas

Modern applications require the best managed database providers available. MongoDB Atlas offers a managed service for the most popular database for modern applications. Some of the world's most innovative companies — like Square Enix and Foursquare — rely on MongoDB for their global availability, scalability, and compliance needs.

MongoDB Atlas is focused on giving your team more time for creative engineering and innovation. Atlas stands out from the competition because it was designed for developer productivity. Every tool was built for ease of use and operational efficiency. Smart integrations, built-in optimizations developed from managing tens of thousands of product deployments, and innovative tools were designed to streamline all database operations.

Don't lose time, money, and human capital building an in-house solution. Increase efficiency with top-of-the-line security and protocols, right out of the box.

Migrate to MongoDB Atlas and see the transformation.

Get started free

Or, contact us to find out more!