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Using Your Database Infrastructure To Support Your Revenue Goals

Technology is a great enabler for all modern business growth, and database technology is the infrastructure upon which modern applications and businesses are built.

Revenue and profitability is the most used measure of success in modern business. Investors scrutinize revenue growth and seek out future success predictors. They look for companies that are innovative, disruptive, and have the right infrastructure in place (team, momentum, sales process, R&D, etc.) They bet on companies with an upwards trajectory.

Most people don't associate database infrastructure with revenue growth and profitability. However, it is absolutely critical to have this foundational technology set up correctly and efficiently, to ensure the growth of the rest of the company.

There are three boxes in database infrastructure that need to be checked in order for the rest of the organization to grow at scale, as fast as required:

Your database infrastructure must be designed to be secure and available by default. Data is a company's most critical asset, You owe it to your customers, shareholders, and employees to keep it safe.

You must be able to meet the expectations of your users (internal or external). This is easier said than done as expectations are skyrocketing (outages, uptime, usability, etc.)

You must build the right infrastructure to support your unique business requirements. This ensures you are building on a foundation that allows you to increase efficiency and lower costs.

These may seem simple enough considerations, and on paper, they are. Despite this, many companies struggle with these in some form or another. This can impact business growth and success.

Data: The Lifeblood of Modern Business

Data is the lifeblood, or currency, of modern businesses. Modern businesses use their data to try and accelerate revenue, reduce costs, and make business decisions. Storing, analyzing, and utilizing vast amounts of data is the new normal. But, this new normal comes with additional expectations and requirements.

Avoid Data Leaks: Your Reputation and Business is at Stake

Keeping control of your data is critical to ensure the growth and future viability of any business. Losing control of your data can be incredibly costly. Not only can you be fined (GDPR, HIPAA, etc.) and face jail time, but you also risk revenue and reputation loss as you lose the trust and business of your customers. Once you lose the confidence of your customers it is extremely difficult and costly to regain it.

The Impact of GDPR

In the first eight months after GDPR came into effect, there were more than forty thousand reported data breaches, and 91 companies were fined. The biggest fine of 2019 was in July, when British Airways was fined £183.39m for infringements of the data protection law.

High profile companies experiencing major data breaches are now regular news items. But, these breaches take place in every conceivable industry and come from companies of all sizes.

The reality is that many breaches can be easily avoided. In fact, most are caused by human error or overlooked steps in security practices, rather than someone actively targeting a business.

Think about it – what it would take to win back your business if someone leaked your personal details?

Meeting User Expectations

User expectations are higher than ever. A Google study found that if your application does not respond in three seconds or less, more than half of mobile website users will leave your site. With the majority of web traffic coming from mobile devices, this can really affect your bottom line.

You cannot survive in business if your users are not taken care of. Whether this is customers or your internal team, users being unable to get what they need, when they need it, leads to frustration and loss of confidence. So, how can you set up your database infrastructure to ensure you exceed your users' expectations?

- Build flexible systems that allow you to add database nodes, replicas, or other components, to scale up and down to meet the demands of your application.

- Upfront design is crucial. Bad design can lock you into poor performance down the road.

- Ensure your backup is effective and performant. Percona XtraBackup performs a hot backup of your MySQL data while systems are running.

- Test and review database performance every few months.

- Use our Cost of Database Downtime Calculator to see just how much your downtime could cost you.

Build the Right Infrastructure

It has never been easier to move your business forward by finding, adding, and using new technology. Businesses are adopting cutting-edge technology which helps them quickly analyze and understand critical trends and patterns in their data. This innovation can become a game-changer but used incorrectly, technology can also cause massive disruptions.

In the past when you wanted to add a new tool or software into your environment, you had to go through a process. This involved getting IT to provision new hardware, getting the servers set up and configured, and gaining access. This process acted as a sort of gatekeeper, allowing technology experts to ask critical questions and offer better, or more secure, options.

The rise of XaaS has enabled many users and developers to circumvent much of the IT process and avoid the centralized oversight that existed in the past. This is especially true in the database space.

Database vendors have spent significant time making it easier for anyone to get started. In fact, the popularity of many database technologies (MongoDB, Elastic, and others) is fueled by how easy they have made it.

Adding a database into any cloud provider is now relatively simple. Not only can developers do it without assistance from a DBA or a database expert, but any user in your company can also do it.

This is where many database leaks happen. Someone moves data over to an external service, they don't know how to properly secure the data, and it is left exposed.

Database Security Considerations

In order to build the right database infrastructure for your business from the start, you should keep in mind:

There is no single database that does it all, but there are many different vendor, cloud, and XaaS options available. Make sure you do your research to find the ones that best meet your needs.	**Keeping your database portable helps you avoid vendor lock-in**. Before signing any agreement(s), ensure you negotiate entry/exit plans in case you want to move vendors. And be sure to keep an eye on auto-renewals!	**Being cloud-native is key** as methodologies, enhancements, and tools for applications have outpaced databases.
Build resilient and fault-tolerant applications and systems from the beginning, and plan for them to fail. If you keep this in mind, you are better prepared for the day it actually happens.	**Employ a multi-vendor database strategy.** A single vendor may not provide everything you need for your applications; so think about utilizing multiple vendors and capitalizing on their individual strengths.	**No AI, automation, or tool can completely handle all database-related needs.** You will still need access to expert database support and advice.

Conclusion

If you want to grow revenue, you need to make sure your database infrastructure is set up to facilitate this. If your applications are not up and running, if you are losing data, if your customers do not trust you, and if your users can't get what they need when they need it, you're going to have a hard time building revenue.

Technology was, is, and will continue to be, a driving force for modern business growth. The efficient management of data and databases should not be taken lightly.

Percona is a leading provider of unbiased open source database solutions that allow organizations to easily, securely and affordably maintain business agility, minimize risks, and stay competitive.

You can maximize your application performance by using our expert support, managed services, and consulting solutions for open source databases located on-premises and in cloud environments. We have extensive experience advising companies on the best way to configure, manage, and run databases to ensure that they are not just secure but also continue to drive revenue growth.

Contact Us

To learn more about how Percona can help your business succeed, please contact us at +1-888-316-9775 (USA), +44 203 608 6727 (Europe), or have us contact you.