How is the Health of Your Database Ecosystem?

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Business Depends on Databases

Does the health of an organization's databases and the infrastructure that runs them really matter all that much? Yes, more than ever since business-critical applications are typically built on top of databases.

In most organizations today, databases are part of increasingly complicated ecosystems that, in turn, help the crucial flow of data continue throughout the organization. Data is the life blood of your business. Strong strategic and tactical business decisions depend upon data.

Your customers are plugged into this ecosystem, too. Customer-facing applications are their window into your organization's products and services. Data is a difference-maker: the difference between a customer remaining with you and a customer becoming frustrated and moving elsewhere.

Sure, applications can limp along during a database outage or a performance slow-down and can be somewhat usable. But allowing that to happen is like jumping into your car and only being able to drive ten miles per hour. How long would you let that continue before you find another mode of transportation?

Database Ecosystem Health Risk Assessment

Database ecosystems are living, breathing, evolving things.

New database types, and more of them, are entering organizations. Some of these new databases displace others as preferred platforms for new application

development and analytics. Others remain almost hidden within the organization.

Infrastructure, too, changes over time. Sometimes in small, imperceptible ways. Sometimes, in shifts to completely new types of virtualization, servers, networks, or managed service providers. As organizations grow – organically, or through acquisitions and mergers - the complexity can multiply quickly.

Cloud migrations and cloud native are choices that add to the complexity of managing a healthy ecosystem. Often, cost/performance ratios need to be managed. If they are not, eventually, customers are impacted by reduced application availability and performance, or costs increase – upending cloud strategies.

While all these challenges are becoming more complex and making surprise performance and outage problems higher risks, operations teams' skills are often lagging. Database administrators, infrastructure administrators, Cloud Ops teams, and others may have honed their skills on legacy databases and infrastructure. Skills in cost-effective and safe (read "no data loss") cloud migrations are rare enough in some organizations that leadership must alter or delay cloud migration goals. And in many companies today, these areas of the organization are not growing. So, more is asked of people to not only solve problems faster, but also to help with digital

transformations — a common polarity that too often results in time and effort shifting to fire-fighting over helping the organization transform.

The table below encapsulates the cause and potential impact of five common database ecosystem health risk scenarios. It also shows the corresponding Inherent Risk scores for organizations that are yet to implement controls or mitigation strategies, followed by the potential Residual Risk scores after the deployment of Quest's database and infrastructure monitoring and performance analytics offering.

Risk Scenario	Cause	Risk Event	Impact	Inherent Risk			Residual Risk		
				Likelihood	Severity	Score	Likelihood	Severity	Score
1	Lack of visibility of performance and capacity problems	Outage, data loss, application slowdown	Revenue is affected as customer experience suffers, reputational damage	4	5	20	2	1	2
2	Ineffective database and infrastructure optimization and configurations	Outage, data loss, application slowdown	Revenue loss is possible as customer experience suffers, reputational damage	5	5	25	2	1	2
3	Reactive approach to resolving performance issues makes it difficult to focus on eradicating root causes	Productivity loss, outages and slowdowns	Revenue loss is possible as customer experience suffers, reputational damage	4	5	20	2	1	2
4	Complex data infrastructure makes it difficult to maintain optimal performance and availability	Outages, slowdowns, and delays in fixing root causes	Revenue loss is possible as customer experience suffers, reputational damage	5	5	25	3	2	6
5	Costs of cloud transformations are largely unknown or not understood	Cost overruns, success of transformations unmeasurable	Cloud migration strategy is questioned and perhaps unsustainable	4	4	16	2	2	4

Inherent Risk

Residual Risk

Risk Scenario

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How Healthy is Your Database Ecosystem?

In the event of a data outage, the extent of an organization's difficulties is determined by its ability to respond and recover; in other words, its resilience in restoring service. For so many organizations, the smooth and high performing operations of the databases and the pipeline that flows the data through the organization is a business requirement.

Quest can advise you about best practices for:

- Becoming proactive problem-solvers. Keep your database performance problems visible, even before they affect users – your customers.

- Effectively tuning databases and their workloads. Even if your staff is light on skills in new platforms, don't allow that to result in continued problems with performance and availability of data systems. Find and fix the root cause of problems across your complex data ecosystem so they don't reoccur.

- Balancing costs and performance. Build ecosystem health by allowing the organization to correctly balance costs and system performance. And save on both CAPEX and OPEX, where possible, to increase spending on urgent competing priorities that help meet strategic goals.

Talk with us about our database and infrastructure monitoring and optimization solution that gives you the ability to detect and respond to problems rapidly and accurately, build productivity, fill skills gaps, control costs, and continually meet or exceed your customers' high expectations.

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