

Architectures and Competitiveness

Since 1985, relational database management systems (RDBMS) have standardized business and created so much value that one hesitates to question them. Are they still adapted to modern-day needs? Do they allow businesses to remain competitive?

Let's remember that when the RDBMS were enacted, Internet was in its infancy, the information circulated slowly, web social media did not exist and the notion of Big Data was unheard of!

To exploit the new wealth of data, large datasets were built. But the size of the datasets increased much more rapidly than processor capacities. So the processing load was distributed across multiple servers and cloud hosting solutions emerged. But the increased complexity and the mounting risks now threaten the competitiveness of some projects and even some organizations.

Relational databases

Our current business environment exposes their limitations, posing growing challenges to developers and administrators whose solutions tend to become more and more expensive and inflexible. For instance, when the volume of data increases rapidly, the performance becomes unpredictable and production launches become painstakingly protracted. Moreover, querying unstructured data having several degrees of interconnection can prove overly time-consuming.

Emergence of NoSQL databases (Not Only SQL)

NoSQL databases proliferate because they better handle data diversity and sharp volume increases; they facilitate interactions in real time; their initial development effort is lesser, thereby reducing the overall development costs and accelerating launches; their maintenance cost is smaller; finally, in the presence of large datasets, their reading and writing performance is much better.

The emergence of NoSQL databases will hurt companies who struggle to update their information backbone. Laggards risk experiencing a severe decline of their competitiveness to the point of becoming road kills for more agile competitors.

Database Architectures

The competitiveness of organizations is reliant on the efficiency of their databases. As database architecture has become a discriminator of profitability, most companies should take notice.

Axone supports organizations in the selection, implementation and administration of relational and/or NoSQL databases well adapted to their activities, their projects, their business plan and their vision.

We invite those interested in graph databases to get in touch.

Denis Proulx, co-founder, **Axone Intelligence Inc.**