

Bouygues Telecom Optimizes the Quality and Availability of its Customer Data with DataStax

For an operator, the provisioning system needs to cover major strategic issues. APIs are often the first point of contact between the customer and the brand, synonymous with acquisition or loyalty depending on the quality of the experience—a major competitiveness factor that drove Bouygues Telecom to deploy DataStax Enterprise (DSE). In the end: DSE provides a high level of customer data consistency for an optimal user experience.



USE CASE:

Ensure consistent customer data and high network availability for an optimal customer experience.

INDUSTRY:

Telecommunications

CHALLENGES:

- > Ensuring continuity of services through high network availability
- > Ensuring a high level of quality and consistency of customer data
- > Improving customer experience and satisfaction

SOLUTION:

- > DataStax Enterprise

RESULTS:

- > High network availability without loss of services
- > Database scalability and security
- > In the future: 1.5 billion transactions per day

THE CHALLENGE

Like many companies, Bouygues Telecom had a relational database management solution. Nevertheless, the failure of a site could then result in the loss of all access to customer data, resulting in an interruption of services with many consequences for the company. They questioned whether their relational database could keep up with their availability requirements. They also had concerns with the consistency of data with NoSQL databases, as well as implications for customers. To address these issues, the team decided to conduct a number of studies and a proof of concept.

“We concluded that it is better to have obsolete data than no data at all,” said Louis Le Compagnon, Head of the Development Center and Shared Architecture within the Networks Department of Bouygues Telecom.

“Indeed, if NoSQL privileged potentially obsolete information, the relational database was based on the assumption that it did not transmit anything to the client. It was then decided to give priority to even imperfect data rather than risk losing service.”

“The DataStax solution offers the ability to query the database in a number of ways, which can detect an inconsistency and thereby correct it. In addition, the solution is easily scalable in case of larger data volumes even if the scope is today only a few. In the long run, we should be able to handle 1.5 billion transactions per day.”

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Head of the Development Center and
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THE SOLUTION

In search of a mature NoSQL technology, the Bouygues Telecom network team did some research and discovered Apache Cassandra™. “We then got closer to DataStax. As we learned about the technology, we realized that we were not forced to accept outdated information and that we could manage the data to avoid obsolescence. We were then able to guarantee very high availability without compromising data quality.” This guarantee of network performance, a vector of customer satisfaction, convinced the team. The development phase was launched in April 2017 and the first commissioning in September of the same year.

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THE RESULTS

Once the migration is complete, the overall scope of the solution will cover the entire eligibility and management of Bouygues Telecom’s network resources, in which even the slightest data inconsistency can cause a service outage or degradation and result in customer dissatisfaction and a bad brand image. Quality of service proved to be a major differentiating factor for Bouygues.

“Today we have an infrastructure that allows us to ensure continuous availability on our three sites. If all the nodes integrate all the data, all are not systematically used and we adapt the level of transactional risk according to each case of use”, stressed Le Compagnon. “In case of loss of a site, consistency can be maintained. For example, we lost 4 knots in pre-production but we did not suffer any loss of service. The trades were very satisfied!”

To ensure suitability with Cassandra, DataStax provided full support at the beginning and then intervened regularly during the migration to check the service status of the service cluster.

“We systematically ask them to validate how to implement, which also allows our teams to build on their skills.”

Support and satisfaction that is already allowing Bouygues Telecom to consider new projects.

ABOUT DATASTAX

DataStax delivers the always-on, Active Everywhere distributed hybrid cloud database built on Apache Cassandra™. The foundation for personalized, real-time applications at massive scale, DataStax Enterprise makes it easy for enterprises to exploit hybrid and multi-cloud environments via a seamless data layer that eliminates the issues that typically come with deploying applications across multiple on-premises data centers and/or multiple public clouds.

Our product also gives businesses full data visibility, portability, and control, allowing them to retain strategic ownership of their most valuable asset in a hybrid/multi-cloud world. We help more than 400 of the world’s leading brands across industries transform their businesses through an enterprise data layer that eliminates data silos and cloud vendor lock-in while powering modern, mission-critical applications. For more information, visit DataStax.com and follow us on @DataStax.