Capgemini and Cloudera Deliver Big Data Network Optimization Solution for Global Telecommunications Provider

Improving insight into network usage and identifying new commercial opportunities through Big Data transformation

The Situation

The client is a global telecommunications provider with a large presence across Europe and the Americas. Its global solutions division was looking for ways to optimize its network, improve quality of service, and identify social behavior patterns to initiate new revenue generation activities. To do this, the company had to convert network usage data into genuine, actionable insights.

In particular, the company was concerned that within its wholesale business-to-business offerings, network traffic was down because of aggressive competition, leading to companies offering lower prices to customers.

The client commissioned Capgemini to develop a solution using Big Data tools to:

- Predict future traffic growth in specific markets and regions
- Identify areas where the network was oversized or undersized
- Identify areas where traffic growth could deliver additional sales opportunities

People matter, results count.

The Solution

Capgemini delivered a solution, which enabled the client to analyze data from a wide range of sources, including:

- Network traffic
- Information on network routes
- Quality of service
- Information from autonomous systems
- Demographic data

Capgemini leveraged socio-thermodynamic models for analyzing and generating predictions on network usage. Reporting was carried out with SAP Business Objects BI 4.1. Cloudera Enterprise 4.5 was used as a Big Data platform and queries were handled directly against Cloudera Impala.

The solution also included:

- Use of Agile methodologies
- Introduction of an ESB/ELT tool for data integration
- Use of a GPU (Graphical Processing Unit) for massive parallelization of thermodynamic calculations
- Use of a thermodynamic model for data analysis

The Result

The first phase of the project involved migrating data to a centralized enterprise data hub. Cloudera's enterprise data hub, Cloudera Enterprise, offered increased flexibility and agility in terms of data storage and analytics, while also delivering major cost savings for the customer.

The project has also provided to the client early insight into geographic areas where it could target investments in its network. Other major benefits realized by the client include:

- Operational improvements
- Identification of new business opportunities
- Improved strategic support to commercial activities
- More flexible corporate reporting, with all information available in a single repository
- Improved accuracy of predicted results through usage of thermodynamic models

About Capgemini

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cloudera®

Cloudera is revolutionizing enterprise data management by offering the first unified Platform for Big Data, an enterprise data hub built on Apache Hadoop™. Cloudera offers enterprises one place to store, process and analyze all their data, empowering them to extend the value of existing investments while enabling fundamental new ways to derive value from their data. Only Cloudera offers everything needed on a journey to an enterprise data hub, including software for business critical data challenges such as storage, access, management, analysis, security and search. As the leading educator of Hadoop professionals, Cloudera has trained over 20,000 individuals worldwide. Over 1,000 partners and a seasoned professional services team help deliver greater time to value. Finally, only Cloudera provides proactive and predictive support to run an enterprise data hub with confidence. Leading organizations in every industry plus top public sector organizations globally run Cloudera in production.

More information is available at:
www.cloudera.com

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