

Cloudera Optimization for a leading Italian Bank - Case Study



Client Overview

- The client is a leading Italian bank in operation for more than 130 years with more than 300 branches spread across Italy, Ireland, India and Romania.
- The bank offers a wide range of financial and banking products to meet its customers' needs, mixing the benefits of specialization with tailor-made solutions.
- The bank has always been at the forefront of innovation and has been part of many new initiatives – Among the first to provide online trading for brokers, part of the first European ecommerce initiative by Microsoft & Yahoo etc.



Business Requirements

- The bank was exploring ways to unearth critical insights, from the vast amount of information they sit on, by leveraging Big Data Analytics
- The bank has strategic objectives to extend the Big Data Analytics initiatives to the Fraud Analytics space and the likes
- As part of this initiative to make data-driven decisions, the bank was developing several Proof of Values (POVs) leveraging Cloudera Enterprise



Key Challenges

- The bank's home grown application, built on top of **Cloudera certified** Big Data infrastructure, integrated SOLR to enable text analytics for business user.
 - The SOLR search query took **3 days** to complete execution in Production.
- Indium Software was engaged to **give expert recommendation** that involved no change to existing Cloudera certified infrastructure.



Our Approach

- We studied the system first to understand – environment & infrastructure setup, home grown application and it's business use case, JVM, and SOLR configuration.
- We recorded configurations/setup that are sub-optimal – Shards size, JVM memory allocation, query parser, and SOLR schema configuration.



Our Solutions

- We implemented advanced query parser & algorithm, which increased query performance significantly.
- We proposed additional steps for more enhanced performance. These included changes in – schema configuration, no. of shards/instance, and JVM allocation.



Results

- The query processing time came down from **3 days to 3 mins**
- We've been **awarded another project** to develop an application to **mine system logs** and identify patterns previously unknown, at real-time, that might cause server performance issues



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