



Fluence improves on the data-driven decisions using Business Intelligence

SUMMARY

Fluence is the result of two industry powerhouses and pioneers in energy storage joining together to form a new company dedicated to innovating modern electric infrastructure. In January 2018, Siemens and AES launched Fluence, uniting the scale, experience, breadth, and financial backing of the two most experienced icons in energy storage.

The Fluence team encompasses more than 10 years of experience deploying and operating energy storage. Fluence is driving change by opening new markets to storage around the world, and has the largest deployed fleet of energy storage projects of any company.

OUR ROLES

- Reporting & Dash-boarding
- Management of heavy data set



THE CHALLENGE

Fluence does large scale power plants installations while utilizing it's technology across the globe. They set up monitoring systems using their propriety HMI systems. There was a need to provide analytics on top of these monitoring systems to analyze the sustaining and repetitive issues like spikes, outages, etc. This called for a comprehensive BI system to be deployed to ensure constant reporting of the plant-wise incidents and their resolutions. Fluence is also involved in energy trading across multiple Energy Markets like NYISO, CAISO, PJM, etc.. This needed a proper BI Infrastructure to do the required Data Integration across multiple markets on the historical pricing data points, and use them for reporting and analytics to determine the trends and support Fluence for their pricing for the Energy bidding optimally.

To address these issues, the company needed a business intelligence solution built on industry standard architecture and is interoperable with their existing platforms. They wanted to have solution that was quick to roll out across the organization.



SOLUTION



Sigma designed an Enterprise Business Intelligence Reporting Solution which enabled real time information to make data - driven decisions.



Unnecessary caching problems in Pentaho Data Integration were resolved by optimizing the database and mondrian application for better performance



Activating Report Bursting i.e scheduled custom reports for AES and each of AES clients. Sigma wrote scripts to extract data from JIRA & Google APIs to maintain heavy datasets of over 300 gigs.



Developed charts, management dashboards, automatic data loading scripts, JIRA Reports, Jobs to fetch JIRA data etc.

BUSINESS BENEFITS

- ✔ Ability to run the facilities efficiently using analytics for the data collected through meters to capture energy conversions and storage.
- ✔ Sigma automated the data aggregation process from multiple channels, therefore saving manual effort and cost.
- ✔ AES was able to review the trends collected from historical records for Energy trading.



TECHNOLOGY USED

- » Pentaho BI suite
- » PDI
- » Mondrian
- » JIRA
- » Crowd SSO
- » Amazon RDS – MySQL
- » Selenium
- » AWS

SIGMA AT A GLANCE

Sigma delivers innovative IT solutions in a variety of industries including FinTech, eCommerce, Technology, Telecom, Retail, and Healthcare. 300+ technocrats strong, and with 28% of the workforce with over 10+ years of industry experience, Sigma brings unconventional thinking and decades of experience to the table. Since 2004, Sigma is passionately aligned with the cause of ensuring positive business outcomes for clients through digital innovation.