

Eliminating high **Cost and Latency Issues** through ELK Solution

With our customer's current setup, generating custom reports and insights comes with high latency and cost implication. Changing their current analytics setup was critical for business success. DigitalAPICraft was able to engineer a solution using ELK Stack (with disaster recovery) and help generate required business insights through custom reports. DigitalAPICraft played a pivotal role in the successful implementation of the solution, installation, configuration, migration, support and maintenance initiatives for the customer.

 Technologies

- Apigee
- ELK Stack
- AWS
- VPN

About the Customer

Our customer, a leading tech firm in the communications space, has millions of daily users interacting with their systems for business needs. As a front runner in the space, our customer aimed to shape the future of communication through innovative projects and programmes.

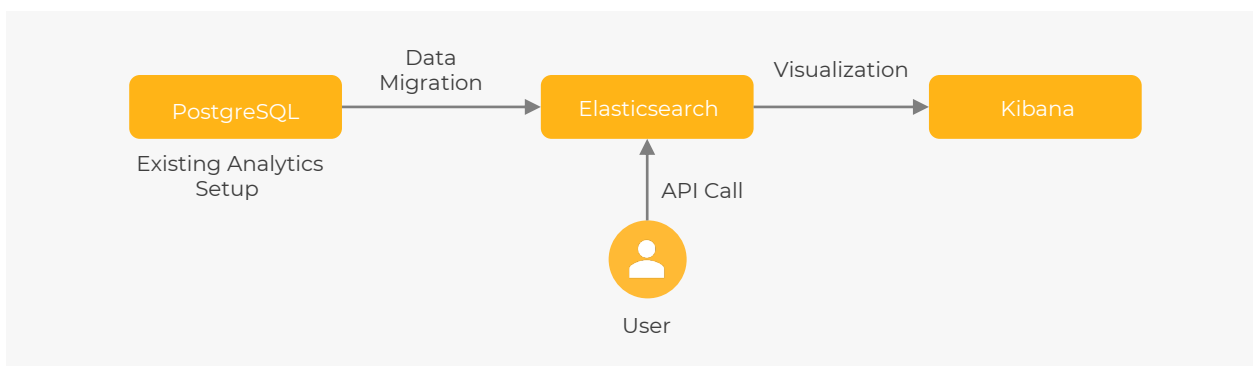
The Challenges

In order to gain business critical insights, our customer relied heavily on their existing analytics tool to deliver custom reports. Their existing setup used PostgreSQL to store and retrieve the analytics data. The data was stored in PostgreSQL as part of the API flow. The current solution used RAID 0 to support their analytics data retrieval which resulted in high latency issues. This not only made generating custom reports cumbersome but also made the setup prone to disaster. The current setup came with high cost implications too.

Our Solution

The customer wanted a comprehensive solution that can help them with custom reports generation in a robust and cost effective way. DigitalAPICraft (DAC) partnered with the customer and offered a full-fledged ELK solution with an effective disaster recovery system in place. After a thorough assessment of the customer's setup, DAC architected a detailed solution meeting all the technology standards of the customer.

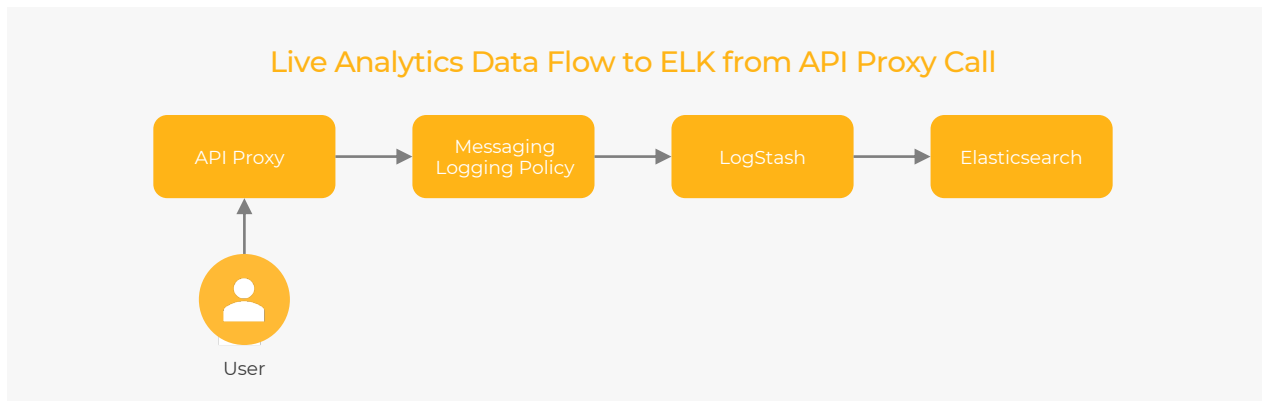
Installation and configuration of ELK with a DR setup in place was the next phase of the project, which was followed by migration of all the data from Postgres to Elasticsearch setup. Custom scripts were written and effectively executed to retrieve data from Postgres and moved to Elasticsearch.



After the migration stage, the focus was on the customer's existing APIs and Apigee setup. DAC helped deploy a comprehensive set of custom APIs to assist in pushing the analytics data to Elasticsearch through VPN and Logstash. The VPN approach was taken to ensure security and no middle man attack while data is pushed from the Apigee layer to Elasticsearch.

Data from the ELK setup needed to be made available in certain formats so that the customer's extended setup can consume it.

DAC helped build custom APIs on Apigee to read the data from ELK setup and make available in the required format. As a part of this phase, separate index was created for different environments to increase performance and reduce the effort required to archive old records.



The next stage of the project involved creation of dashboard using Kibana. The dashboard was designed for easy analysis of vast amounts of user data and traffic insights. The custom reports and dashboards were tested for errors and repeatability. They serve as a prime source of key insights and metrics for the customer to make informed decisions and stay ahead of the curve. DAC also continues to support the customer with platform upgrades, security updates, maintenance activities through our world-class 24/7 support teams.

Engagement Outcomes

The project was successfully implemented and both teams exhibited great synergies. DAC was able to help the customer to meet the delivery as per customer expectation. Some of the key highlights are listed as follows:



Other highlights were:

- ▶ Successful implementation and on-time delivery of the ELK solution
- ▶ Testcase implementation covering end-to-end scenarios
- ▶ Agile approach and delivery methodology adopted throughout
- ▶ Design and implementation done as per the customer's processes

Technology and Tools

- | | | | |
|----------|-------|-----------|-------------|
| ▶ Apigee | ▶ ELK | ▶ Grafana | ▶ Pagerduty |
| ▶ AWS | ▶ VPN | ▶ Nagios | ▶ Postgres |

Interested in talking to our experts?

Drop us a note!

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DigitalAPICraft, through its products and services, helps global brands establish their API Ecosystem and transform into a truly Experience Enterprise. As a leading end-to-end digital transformation partner, our API-led approach enables retail, banking, insurance, telecom, and media companies to offer delightful customer experience, transform business processes and boost operational efficiency.

DigitalAPICraft has been awarded “Delivery Partner of the Year for APAC 2017 – Google Cloud” and is a Premier Google-Apigee partner. Over three consecutive years (2020, 2019 & 2018), DigitalAPICraft is recognized as one of the fastest-growing technology companies by Deloitte in its Technology Fast 50 India and twice (2019 & 2018) in Technology Fast 500 Asia Pacific rankings.

Located in USA, UK and India, and with customers across the globe, DigitalAPICraft brings extensive product and platform experience to help enterprises with digital strategy and consulting, disruption engineering, end-to-end DevOps, experience engineering and much more.

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