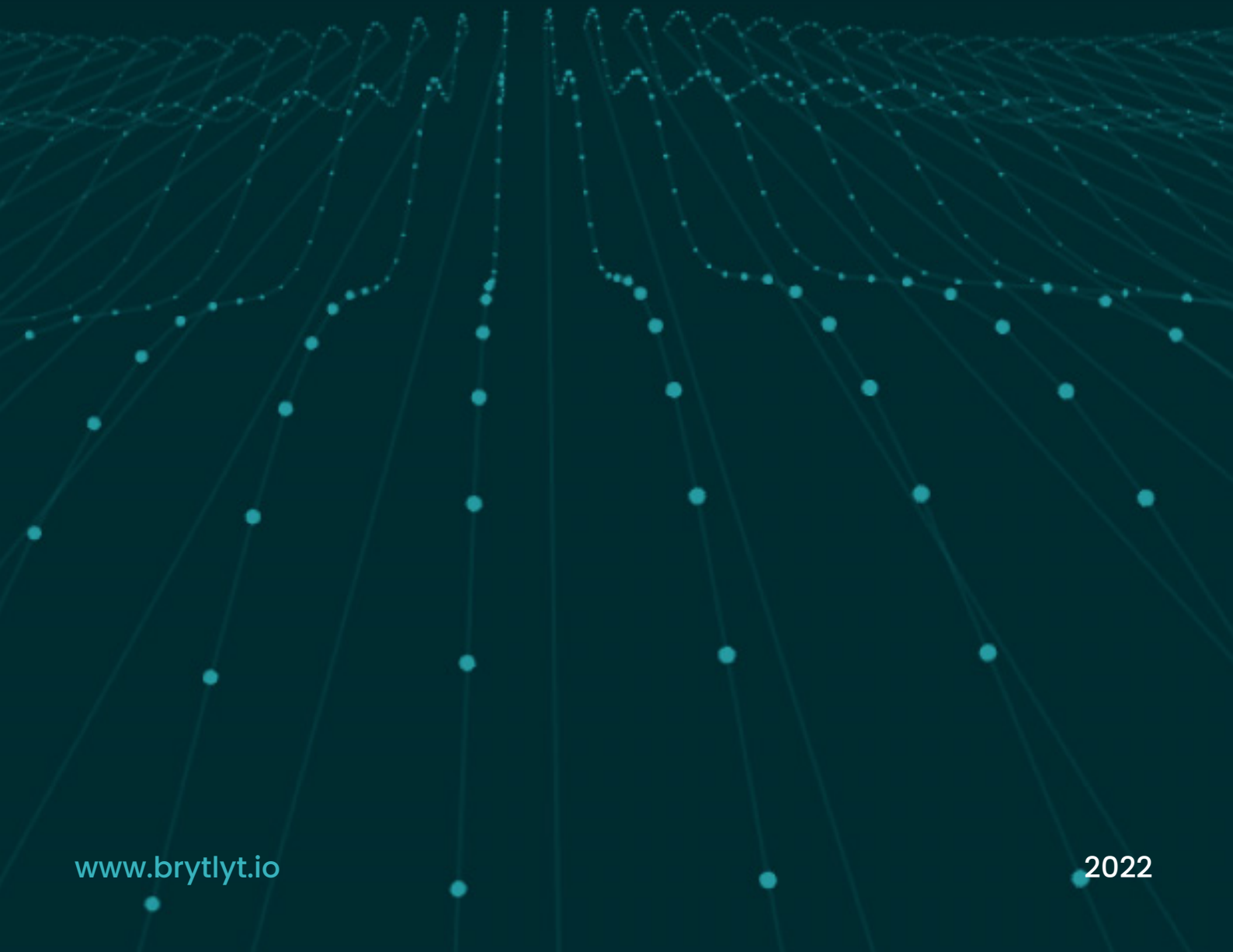
brytlyt

Telco Use Case



www.brytlyt.io

2022

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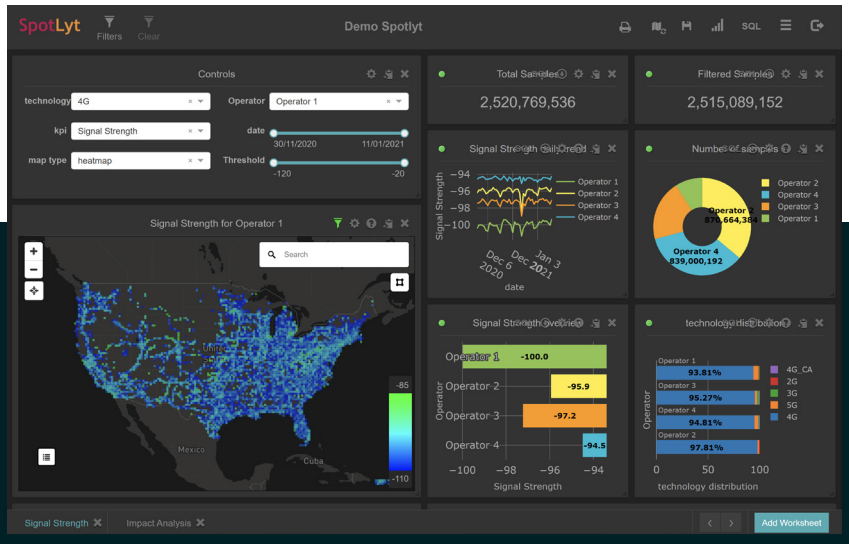
The problem:

Data was gathered from mobile networks that included network performance, geospatial and timestamps. Large amounts of data were being collected and needed to be visualized using maps and charts for ad hoc analysis. This was needed to better understand network performance and user experience in real-time.

The customer created a new network performance benchmarking service based on crowd source data, which involved deep interactive analysis of billion row datasets.

They had secured initial global telco customers, but their initial architecture didn't perform. The customer needed to have fast performance against very large volumes of data from multiple sources, along with fast mapping capability (choropleth and heatmap). Visualization tools like Tableau were initially considered but deemed inadequate, with performance being an issue and poor mapping / geospatial data visualization functionality.



- Geospatial Mobile Network Metrics
- 10 Billion Data Points (228Gb)
- No pre-processing or summarised data

- AWS P4 Server (p4d.24xlarge)
  - 8 x NVIDIA V100 Tensor Core GPUs
  - 600GB/s Peer-to-Peer NVIDIA NVSwitch
- **BrytlytDB:** GPU-accelerated Database
- **Spotlyt:** GPU-accelerated Maps and Charts

The solution:

The foundation for addressing the key issues around performance was to use Brytlyt's GPU-accelerated database. This provided the customer with the raw processing performance that allowed them to analyse large amounts of geospatial data using interactive maps and charts for real-time ad hoc analysis.

In addition to millisecond-latency on billions of rows of data, Brytlyt's analytic workbench was used to create beautiful interactive dashboards that were easy to use and maintain. These features enable customisation, which the customer used to implement a highly intelligent solution specifically for the analysis of telco data. Key features in the analytics workbench include:

- Flexible, easy to use mapping for choropleth and heatmaps.
- Brytlyt is a PostgreSQL clone which means that database functions can be accessed as tables from any of the charts. This provides incredible flexibility for complex data processing on GPU.
- Brytlyt's analytic workbench includes additional customisation in worksheets and charts through code snippets that can be used directly in the GUI.

As a result of using the Brytlyt solution, 30+ mobile network operators were signed up within 3 months, and improved the position of their other benchmarking services and solutions.

The benefits - why did they choose Brytlyt?

- **Speed and scale**
  Fast and seamless access to data from multiple sources.
- **End-to-end platform**
  Brytlyt provides a complete solution from ETL for loading the data, to beautiful, interactive dashboards.
- **Geospatial analysis**
  Where other database visualization tools struggle, Brytlyt can provide responsive, immersive user experience.
- **Cost and flexibility**
  Because Brytlyt has a serverless architecture, it runs on AWS at a fraction of the cost of alternatives.
- **Low maintenance**
  Brytlyt is an end-to-end solution where much of the maintenance overhead is automated., This enabled the customer to do a fast-start of the solution within the first year.

Brytlyt is unique in that it's highly flexible front-end and serverless architecture allow customers to build competitive advantage using their domain expertise and proprietary data.