

Optimizing EV Charging Data Analytics at *Corporate focused Charging Station Provider*

How Core360 enabled an EV charging station provider to drive real time KPI analytics, faster data to action loop for marketing teams and simplify scaling all while reducing operational and compute time by a large margin

Overview: The customer was a **leading provider of EV charging stations** serving large corporate campuses **across the U.S.** They were collecting extensive telemetry from their deployed infrastructure. While this data was being reliably streamed to Amazon S3 and queried using Presto on AWS, the analytics architecture **faced significant challenges:**

- **No built-in storage** capability in Presto made data management cumbersome
- **Unpredictable dashboard usage** patterns made resource planning difficult
- **Inefficient scaling** as each query was treated independently, consuming more compute resources
- **Performance bottlenecks** when multiple data-driven applications accessed the same data concurrently

These issues hindered real-time analytics and limited the company's ability to scale their EV data services across enterprise clients.

Solution: Core360 was implemented as a **data orchestration and contextual intelligence layer** on top of the existing AWS infrastructure. It used **intelligent triggers** to pull raw data from S3 into an **integrated, contextualized data store**. With **built-in context awareness**, Core360 facilitated the development of **additional analytical features**, including real-time EVSE downtime tracking, real-time cost and revenue analytics per station and automated marketing insights based on usage patterns and customer segments

Results:

- **85% reduction** in annual operational costs associated with query and compute resources
- **Near real-time analytics** for operational KPIs like station availability and utilization
- **Faster insight-to-action loop**, enabling marketing teams to target campus-specific campaigns
- **Simplified scaling** of analytics as usage patterns evolved



Core360 contextualized disparate datasets and enabled efficient query management



Core360 transformed a reactive Presto-based architecture to a proactive and cost-efficient platform



Core360 empowered the customer to deliver richer services, better insights, and higher ROI



Core360 futureproofed the infrastructure for new applications



Reduced annual operation cost of querying and compute resources by 85%