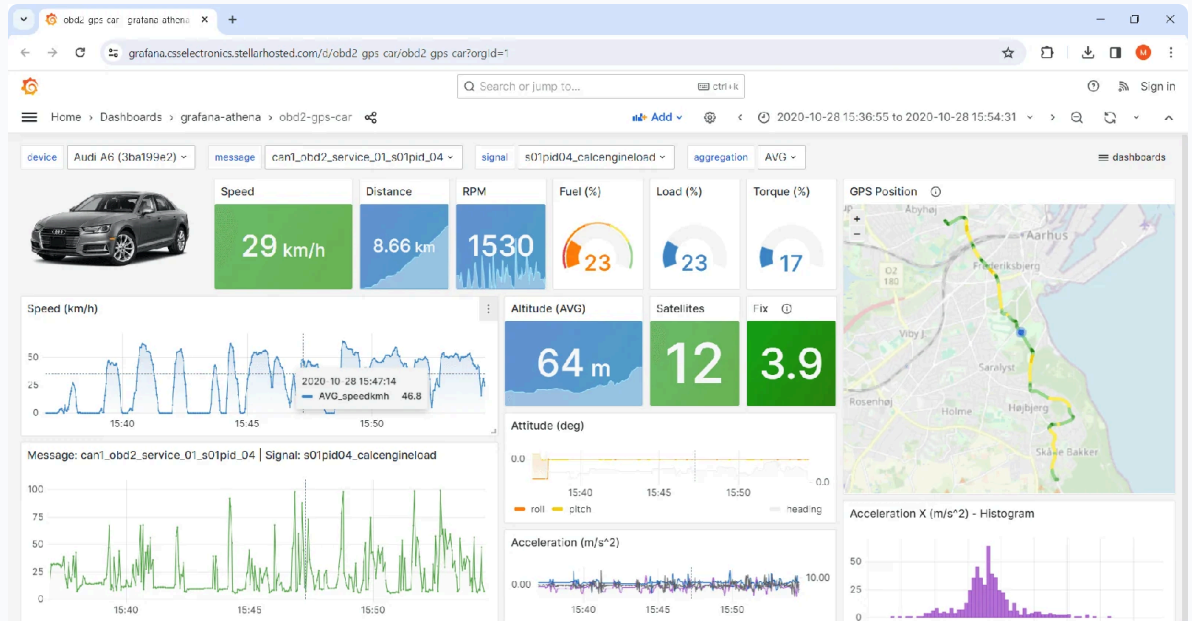


Grafana-Athena: 95% lower cost dashboards + 9 big upgrades of 2023

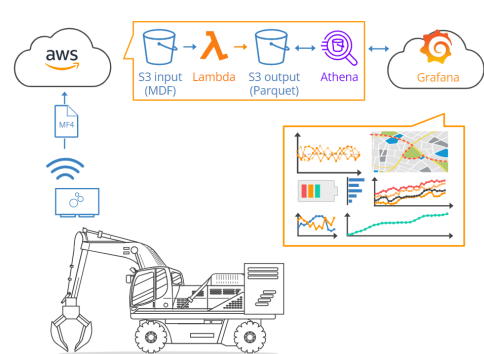
CSS Electronics newsletter - January 2024



Grafana-Athena: New CANedge dashboard integration

Want to visualize your CANedge CAN/LIN data in Grafana dashboards?

With [Grafana-Athena](#), this is now much easier, more scalable - and **95% lower cost**.



Below is a typical Grafana-Athena setup:

- 1) A [CANedge](#) uploads raw CAN/LIN data to an AWS S3 bucket
- 2) When a file is uploaded it triggers a Lambda function
- 3) The Lambda function DBC decodes the data to Parquet files
- 4) The Parquet files are written to an AWS S3 'output bucket'
- 5) Grafana visualizes this 'data lake' via an Amazon Athena plugin

Note: You can use Grafana-Athena with any CANedge (1, 2, 3). You can simply skip the Lambda automation and e.g. upload DBC decoded Parquet files from a CANedge1 directly to an AWS S3 output bucket.

Key new benefits of Grafana-Athena

The 'magic sauce' of Grafana-Athena is the data lake approach:

⚙️ AUTOMATED & SCALABLE

Our new 'MF4 decoders' enable the creation of DBC decoded Parquet data lakes. Deploying this with Lambda functions lets you easily automate and scale your setup from 1 unit to 1,000+ units.

💰 95% LOWER COST

Storing your data as an S3 Parquet data lake is 95%+ lower cost. As illustrated in our high level [cost calculator](#), a **100 GB** use case would cost ~**150\$ / month** with Grafana-InfluxDB vs. ~**3\$ / month** with Grafana-Athena.

⚡ EXTREMELY FAST

Athena is a server less tool that dynamically allocates resources and performs query parallelization. This lets you refresh dashboards across GBs of data in 2-4 seconds - meaning you don't sacrifice any practical speed.

👉 EASY TO DEPLOY

Our step-by-step guide provides 'CloudFormation stacks' that auto-deploy everything in a few clicks. The integration can be set up in <15 min - and if any questions, we offer fast technical support as always. [Try it yourself right now](#) with our sample data!

🚚 IDEAL FOR CAN/LIN

CAN/LIN data often involves GB or TB of data, making a data lake ideal. Further, with Grafana-Athena you retain the original timestamp resolutions of every message.

✂️ MULTI PURPOSE

Once Grafana-Athena is deployed, the data lake can be used in hundreds of other tools - incl. Python, MATLAB, Excel, PowerBI and Tableau (more on this in future updates).

We believe this makes Grafana dashboard visualization much more viable at scale!

[Learn more](#)

2023

9 big upgrades



9 big upgrades in 2023

2023 has probably been one of the most 'high impact' years we've had at CSS.

In terms of numbers, we've grown sales by 25%+, making 2023 our 8th consecutive growth year - with 2,000+ new companies now using our products.

More importantly, we radically improved our products and software.

Below we recap the **top 9 upgrades in 2023**:

- ⚡ MF4 converters are now 7x faster
- ⚡ New CANedge enclosure with flanges (and 15% smaller)
- ⚡ New CANedge1/2 incl. GPS/IMU: 25% lower cost and 70% smaller
- ⚡ New CANedge3 with 3G/4G + GPS/IMU: 25% lower cost and 80% smaller
- ⚡ New features: 50% reduced file size, cross channel triggers, CAN based RTC sync
- ⚡ New optional Super SIM enabling 90% lower 3G/4G costs
- ⚡ New MF4 decoders enabling easy creation of Parquet data lakes
- ⚡ 10x faster deployments via AWS CloudFormation stacks
- ⚡ New Grafana-Athena dashboard integration enabling 95% lower costs

Importantly, many of these upgrades 'stack' - which can **save thousands of EUR/year** for many users (see our example below).

We look forward to introducing new end user improvements in 2024 - if you have specific requests/suggestions/feedback, please reply to this mail.

[Learn more](#)

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