

CASE STUDY

S.M.A.R.T DATA LOGGER



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OUR GOAL:

To gather the vast amount of mechanical data that is produced by mining vehicles (such as dumptrucks, drillers, diggers, excavators and graders) and collectively store it in databases for anyone in the company to be able to access it for any reason such as preventative maintenance.

Currently, this data has always been proprietary to vehicle manufacturers (such as CAT) and therefore acquiring was not easy or cheap.

OUR SOLUTION:

I assisted with the development of software applications that resided on an off-the-shelf, industrial computer box designed for fleet management, that would collect data from various sources such as CAN, VIMS and GPS and send it over the wireless networks to the Kafka Servers.

From there, we had custom written consumers that read the data streams from Kafka and saved it into the historian database




KEY INSIGHTS



"I enjoyed producing something that can shift 100's of datapoints per vehicle per second, over a number of systems, to be able to produce a real-time view of what each vehicle is doing to anyone in the company."

KEY SUCCESS FACTORS

1 Senior Software Developer

5 Tools     

UNLOCKED POTENTIAL:

I went one step further by developing some basic monitoring applications which could be further developed if the handover teams deem useful.

Ultimately the idea is to implement a preventative maintenance strategy using this data.

By monitoring critical information on the vehicle engines, breakdowns (and therefore downtime) can be minimized by getting early notifications on potential failures.