

ADLINK Edge Success Story

Connecting Remote Power Generators with Edge IoT

An economic services engineering company uses ADLINK's Edge IoT solution for emergency disaster response after hurricane Maria struck Puerto Rico

Disaster Strikes

Maintaining uninteruppted power after a natural disaster strikes can be the difference between receiving medical care and putting lives in further jeopardy. After hurricane Maria struck the carribean in 2017 an engineering services company deployed several mobile power generators across many difficult to reach disaster areas in suboptimal conditions. With a very limited staff and no remote access to crucial metadata and parametric data, the maintenance crew had to perform onsite visual inspections every day and manually record data in order to have any indication of the overall health of each power generator, including fuel levels, maintenance needs, and whether the generators were still in operation. There was also a large risk of running the power generators at the same time as the local power company was working to restore services. If the mobile generators were running at the same time as local power came back online, it would cause a large power surge completely damaging the mobile generators.



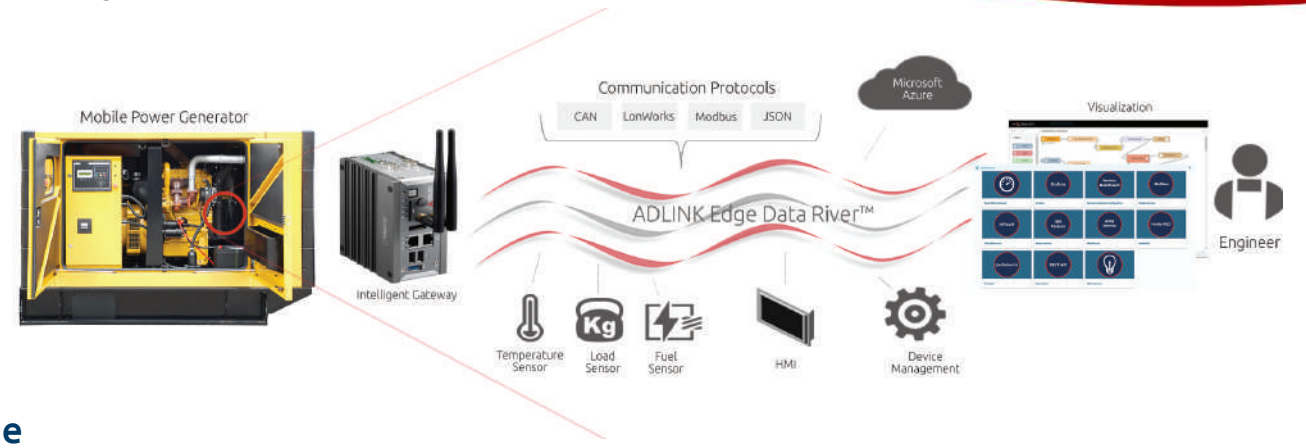
ADLINK Saves the Day With #Tech4good

By leveraging ADLINK's Edge IoT solution, ADLINK Edge®, the engineering services company now has full remote visibility and management over the distributed generators from multiple different manufacturers. The company is using ADLINK rugged edge hardware to extract and process generator data that is able to withstand the harsh post-disaster environment. Then, by streaming real-time generator data on the ADLINK Edge Data River™, the company is now able to connect any asset or piece of equipment, share real-time generator data to multiple end points, and replicate generator data at the edge and in the cloud, making data access for key stakeholders simple and secure. As part of the ADLINK Edge® solution, the company is also leveraging ADLINK's Edge IoT apps for edge visualization and analytics which now allows real-time event processing and alerts, so when something does occur with the generators, the team can take action quickly.

ADLINK® Leading EDGE COMPUTING

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Figure 1: Solution Diagram



Value

The emergency services organization will reduce costs and man-hours by confidently optimizing maintenance and reduce risks associated with loss of power and/or catastrophic failure of power generators throughout the island.

Benefits

- Remote monitoring from central location
- Single system for different generator models
- Refueling route optimization
- Raw real-time data streaming to cloud or datacenter
- Real-time visualization of key metrics
- Real-time warnings and insight alerts

ADLINK Solution Components

Edge Hardware	+	*Edge IoT Software*	+	*Edge IoT Apps*	=	***ADLINK Edge® IoT Smart Solution***
ADLINK Matrix Intelligent Gateway		ADLINK Edge® with real-time data streaming on the Vortex Data River™		ADLINK Edge® OT Connect ADLINK Edge® Cloud Connect ADLINK Edge® Visualization ADLINK Edge® Persistence		

Customer's Existing IT and OT Components

- Microsoft Azure Cloud
- HMI
- Modbus connection to asset controller
- Influx DB for local storage
- Embedded web app



About the Company

The economic services engineering company is a billion dollar full service engineering and economic development firm with a focus on community infrastructure and development. The company employs over 6,000 engineers globally and has chosen to remain anonymous. In an effort to protect their privacy, we cannot disclose a full description of the company.

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