



# DEIF improves efficiency with Azure powered IIoT

**Company:** DEIF Group  
**Website:** <https://www.deif.com/>  
**Company Size:** 50-999 employees  
**Country/Region:** India  
**Industry:** Discrete Manufacturing

## Company Profile

Established in Denmark in 1933, DEIF Group is a green, safe and reliable control solutions for decentralized power production. DEIF has presence in 50+ key markets globally. The company has a major research and development team, working tirelessly to find new, environmentally friendly ways of increasing overall performance, reducing maintenance and fuel consumption for the world's power generating industries.

## DEIF Powers up its customers' Performance with Azure Empowered Industrial Internet of Things

Power creation, distribution and management are backed by controls and processes that need to be efficient and at the same time lower the operating costs. Today, data is a critical factor that seeks to bring about efficiencies across these processes, triggered by diverse set of devices. It's the intelligent edge that drives a confluence of a connected ecosystem of devices and data, enabling insights and business outcomes. Gartner predicts 20 BN connected devices by 2020, sizing a \$1.4 trillion opportunity. Let's look at how 40,000 of those devices are stepping up to deliver a superlative customer value.





## Business Overview and Context

Being a global market leader in green, safe and reliable control solutions for decentralized power production on land and at sea, DEIF stays ahead of the game with its innovation and value-added services. One of DEIF's primary product lines is a line of diesel generator Controllers, which are used in mission critical applications like ship propulsion, oil rigs, offshore stations and more. The Power & Marine division of DEIF has about 40,000 Diesel generators operated through their controllers across the world. A breakdown of these Diesel generators could result in considerable drop in operational capacity resulting in significant losses. Furthermore, if the same happens on ships and other offshore vessels, they need to be returned to the port for repairs, which would often result in significant berthing time for the vessels, increasing berthage costs.

A majority of DEIF's DIESEL GENERATOR set controllers are used by customers who rent their gensets for short / long term needs like events, seasonal shortages, construction power and emergency power needs due to major breakdowns / natural disasters. These customers of DEIF are contractually responsible for the quality and availability of power to their end customers in turn, and any failure of Diesel generators will have significant impact on the business of DEIF's immediate customers. DEIF's customers would often raise concerns around breakdowns and the overall performance of diesel generators during billing cycles, which would lead to lower rental revenues for DEIF's customers. This underlined the business imperative of real-time monitoring of Diesel generators.



## Solution Overview

“Powered by Microsoft Azure IoT platform services, “Insight” – DEIF’s IIoT extension to their products has been built using the **Websym's Tezeva solution**, which allows OEMs like DEIF to roll out a Connected Products strategy for its end customers. The platform gives DEIF a definitive competitive advantage and we are excited to partner them in accelerating their business.” Ashish Nene, CEO, Websym, a Microsoft IIoT partner enabling the implementation of the solution at DEIF.

A combination of Azure services spread across Azure Functions, Service Bus, Azure IoT Hub (future), Event Hubs , Stream Analytics, App Service, SQL Azure, Table and Blob Storage, enabled DEIF turn its Diesel generators into an assembly of Industrial Internet of Things (IIoT) machines which they could remotely monitor and control. The platform transacts about 34 Million messages per month.

The solution has enabled DEIF in setting up configurable settings for product families ranging from:

- Product BOM - Assemblies and sub-assemblies
- Data acquisition parameters (per assembly/sub-assembly)
- Maintenance schedule Alarms, Videos / Datasheets/ Component drawings, email and SMS alerts.
- Dashboards per customer/product/unit with dynamic widgets/APIs.
- Sound product onboarding with automated unit provisioning and e-provisioning, location identification and Asset Fleet management
- Onboarding customers with specific portals and assignment of units and fleet



## Benefits and Impact

The solution provisioning has helped DEIF:

- Improve DG uptime for its customers.
- Proactively diagnose performance issues with DG's to reduce breakdowns and lower downtime costs alongside enhancing customer satisfaction.
- Provide its rental customers with a mechanism to monitor the availability and quality of power delivered and significantly reduce the number of disputes associated with rental billing.
- Get usage data to improve design
- Start a new revenue generating premium service line with the performance data captured through remote monitoring of DG sets.

“We’re looking to enhance our service lines as we continue to build on our products. From a land power segment perspective, as our products go through a long channel, this is a great way to get closer to asset owners once our products are installed and operated by them. The insights that we get through remote monitoring enable us to achieve our vision of green, safe and reliable power, anytime, anywhere”, says Martin Pedersen, Vice President, Marketing & Innovation, DEIF A/S, Power & Marine Division.