ZEDEDA

PEOPLE**FLO**

PeopleFlo is revolutionizing fluid technology by transforming industrial pump systems from passive, stand-alone and disconnected assets into smart, synchronized and connected assets. PeopleFlo MachineEdge improves pump performance, reduces energy consumption by 50% and drives down CO_2 emissions while improving motor, pump and control valve reliability.

PeopleFlo MachineEdge optimizes the operation of pump systems through real-time edge intelligence, AI, and automation. The company leverages Azure IoT as their platform foundation and selected ZEDEDA's secure orchestration solution for distributed edge computing to enable their deployments of MachineEdge at scale. ZEDEDA's Azure IoT integration enables PeopleFlo to deploy and manage MachineEdge devices and their Azure IoT apps for data acquisition, pump optimization, diagnostics and equipment protection.

CHALLENGE

PeopleFlo's core competency and domain expertise lies in pump and pump systems. In building MachineEdge to optimize these systems in the field, their first selection was to leverage the Azure IoT platform so they could focus on delivering value to their customers through unique apps and services rather than building the underlying infrastructure.

Azure IoT Edge provided a clean way to develop edge apps for use with Azure IoT Hub, however PeopleFlo then needed a solution to deploy and manage MachineEdge infrastructure in the field. The company considered a variety of options, ranging from costly and time-consuming in-house development and other off-the-shelf orchestration solutions but they didn't meet the security, footprint, scale, usability and cost requirements. The company also wanted an open solution that could be used to retrofit existing brownfield pump systems while future-proofing MachineEdge as their needs evolved over time.

SOLUTION

ZEDEDA's integration with the Azure IoT platform automates on-boarding and full lifecycle management of MachineEdge compute hardware, the Azure IoT Edge runtime and modules, and any other required software. With ZEDEDA, PeopleFlo can now deploy their Azure IoT-enabled AI apps at the edge to solve the reliability and energy waste problems associated with operating fixed-speed pumps with a control valve.

ZEDEDA's Zero Trust security model enables PeopleFlo to securely control data flow from MachineEdge to Azure IoT Hub while protecting critical assets in the field. Uptime is maximized through risk-free updates and fully autonomous operation if connectivity is lost.

Built on an open foundation, ZEDEDA's orchestration solution promotes interoperability and unifies an ecosystem of hardware and software partners. This provides PeopleFlo with the freedom to adopt new technologies over time so they can focus investment on addressing their customer's unique requirements.

"When we focused our company on MachineEdge's pump system optimization, we needed solutions to three challenges: updating software external to our Azure IoT Edge modules, holistic device security and device monitoring. ZEDEDA provided a secure solution for device management and application deployment while future-proofing MachineEdge for new innovations."

Michael Thompson, CTO PeopleFlo

OUTCOMES & BENEFITS

ACCELERATED TIME TO MARKET

Fast-tracked MachineEdge readiness by eliminating the need to build an orchestration solution in-house or attempt to adapt a non-optimized solution. ZEDEDA met all needs and the pre-built integration with Azure IoT made the choice even easier.
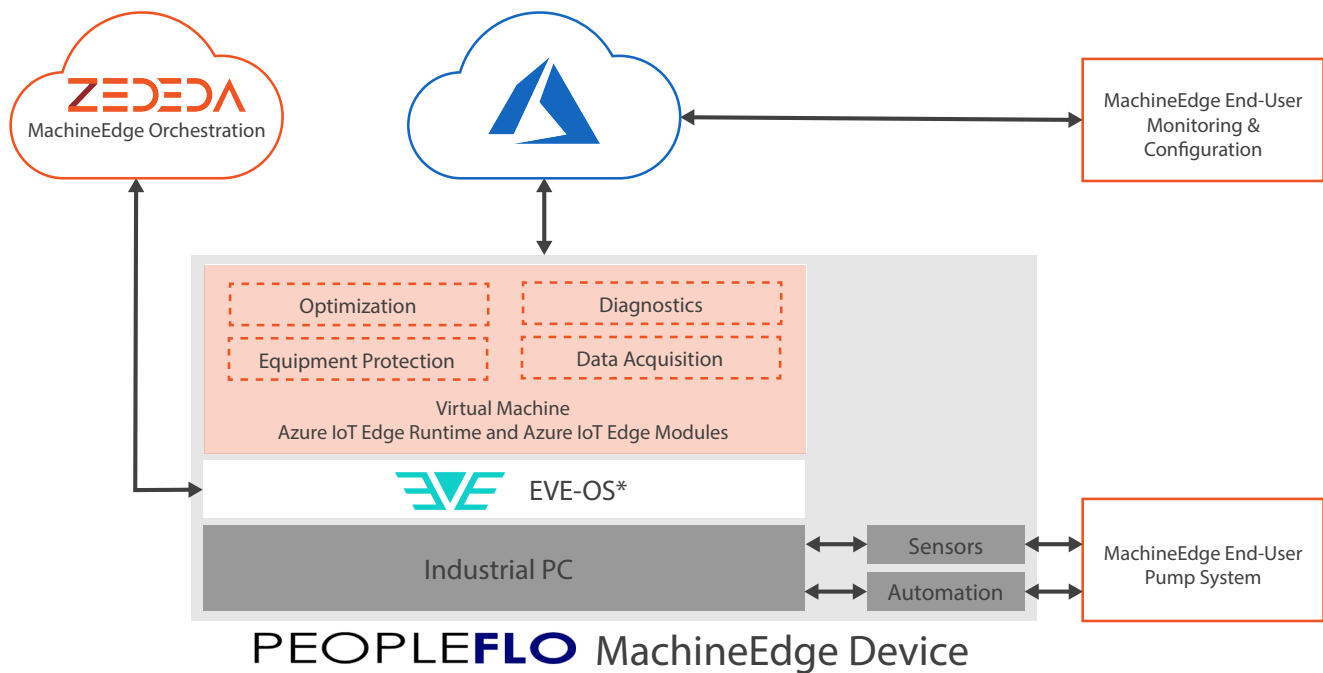
EASE OF USE

An unparalleled out-of-box experience requiring no specialized training for field deployment while enabling remote management of MachineEdge hardware, the Azure IoT Edge runtime and app modules and any other required applications.

NO COMPROMISE TO SECURITY

Zero Trust security model ensures the integrity of MachineEdge hardware, apps and data in both greenfield and brownfield deployments. Security features span silicon to cloud, including built-in distributed firewall capability that provides segmentation on industrial networks to protect critical assets.

FLEXIBILITY AND NO RISK

Open foundation ensures no vendor lock-in while future-proofing MachineEdge deployments with a flexible solution for brownfield and greenfield pump systems. ZEDEDA supports any combination of edge computing hardware and apps deployed in containers or virtual machines.

ZEDEDA
MachineEdge Orchestration

MachineEdge End-User Monitoring & Configuration

Optimization
Diagnostics
Equipment Protection
Data Acquisition

Virtual Machine
Azure IoT Edge Runtime and Azure IoT Edge Modules

EVE-OS*

Industrial PC

Sensors
Automation

MachineEdge End-User Pump System

PEOPLEFLO MachineEdge Device

*part of LF EDGE

> "We had a solid vision but needed a solid partner. We looked at our options and reached out to ZEDEDA – they provided exactly what we needed at exactly the right time. They enabled us to focus on delivering value to our customers while providing a mature orchestration solution for the distributed edge, saving us years of development time and getting MachineEdge ready for the market."
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> William Blankemeier, President, PeopleFlo