



OES Releases the Next Generation of its Open Field Message Bus (OpenFMB™) Adapter for Power Grid Asset Interoperability

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SANTA CLARA, CA - Open Energy Solutions (OES) is pleased to announce the release of its OpenFMB Adapter Toolkit v2.1. Developed in partnership with Duke Energy (NYSE: DUK), the OpenFMB Adapter v2.1 implements an extensible architecture for interoperability at the distribution grid edge while functionally enhancing the capabilities for Distributed Energy Resource (DER) integration.

Central to this release is support for the OpenFMB 2.1 data model developed by the [UCAIug's](#) OpenFMB Users Group that includes new grid code functions for DER integration, discrete controls for ESS and solar inverters, and capability profiles for nameplate and rating information.

Enhancing the bi-directional translation between standard industry protocols (e.g., DNP3, Modbus) and OpenFMB, the v2.1 adapter also incorporates a plug-in architecture that utilities and integrators can leverage to develop their own extensions for less common or proprietary industry protocols. OES has used this plug-in architecture to implement optional extensions supporting common industry protocols, notably, OCCP 1.6, ICCP (IEC 60870-6), IEC 61850 (GOOSE and MMS), OpenADR and IEEE 2030.5 (SEP 2.0).

“This release of the OpenFMB adapter is an exciting evolution in grid-edge interoperability and DER integration,” according to Michael Burck, Vice President of Services for OES. “Utilities can rapidly integrate utility-owned and customer owned DER without being limited by the challenges of integrating disparate device protocols. It is a key component of our Execution at the Edge strategy.”

The release itself includes the following products:

- OpenFMB Adapter – provides translation of legacy protocols to/from OpenFMB and publishes and subscribes messages to other adapters, OpenFMB-native devices, and applications.
- Adapter Configuration Graphical User Interface (GUI) – a data integration tool to assist individuals in setting up the configuration files for their OpenFMB solution.

- Human Machine Interface (HMI) – a situational awareness tool that allows users to model electric grid circuits or create other representations to display sub-second OpenFMB messages.

The release documentation and links to software repositories can be found at (<https://openfmb.openenergysolutions.com/>), along with general information and a simple demo to help people familiarize themselves with the concept of OpenFMB. The open-source community will be able to use these products to configure, deploy, and support their OpenFMB solutions.

About Open Energy Solutions Inc. (OES)

Open Energy Solutions Inc. provides a variety of advanced technology services and development for regulated and unregulated energy suppliers and their customers. Founded in late 2016, OES is headquartered in Santa Clara, California with staff situated throughout the United States. More information is available at openenergysolutions.com.

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