FledgePower

What is FledgePower ?

FledgePOWER is a multi-protocol translation gateway for power systems based on the industrial IoT LF Edge project Fledge.

As power systems transform to include increasing onboarding of renewables, electric vehicles, assets at the edge, or behind the meter, network operators must be able to monitor and interact with substation equipment where a high-volume of data is exchanged with a high-velocity of change. These exchanges require real-time, efficient, robust, and secure communications.

Telecontrol protocols are used at many levels of the system: locally, at various connection nodes of the network, at a central level, and at the interface with network operations. Typically, the proliferation of protocols do not share the same specifications, but they often are handling similar data. Implementing new protocols is costly, can create technical debt, and is time-consuming. To manage this heterogeneous environment, the multi-protocol and evolving protocol phenomena lead operators to run deprecated protocols, as a legacy, for decades. With the speed of change increasing, network operations become increasingly complex, less flexible, and ultimately are expensive to operate. Having the ability to abstract this complexity of protocols with FledgePOWER will offer power system network operators new tools in a rapidly transforming environment.

FledgePOWER solves the problem of multiple protocols translation by providing the industry with a flexible, lightweight, industrial-grade, open source gateway that embeds Fledge (LF EDGE). Additionally, FledgePOWER provides a toolbox for simulation, data configuration, and checking focused uniquely on power systems' protocols translation and power systems' use cases.

FledgePOWER is a cross foundation collaboration between LF Edge and LF Energy that ensures strong cooperative governance and technical alignment between the two communities.

Moreover, FledgePOWER aims to build and grow a community of end-users, developers, utilities, and other players to collaborate to solve current and future challenges in the energy space.