FESC
Florida Energy Systems Consortium

May 20th - 21st, 2015

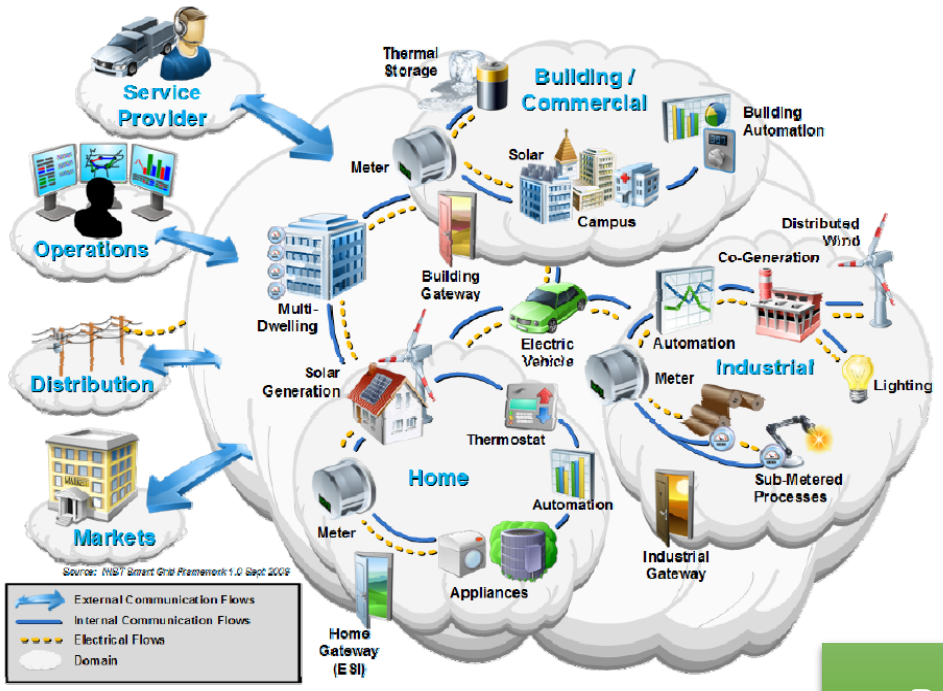
eNOS

An open source energy OS

From sensors & switches
to controllers & the cloud

Raymond Kaiser, LEED AP
Director
Energy Management Systems

Local Focus. Global Reach.
Amzur
Technologies



To go from centralized power to distributed energy requires

an operating system

eNOS

Vendor & hardware neutral
protocol agnostic

open standards
and
open source

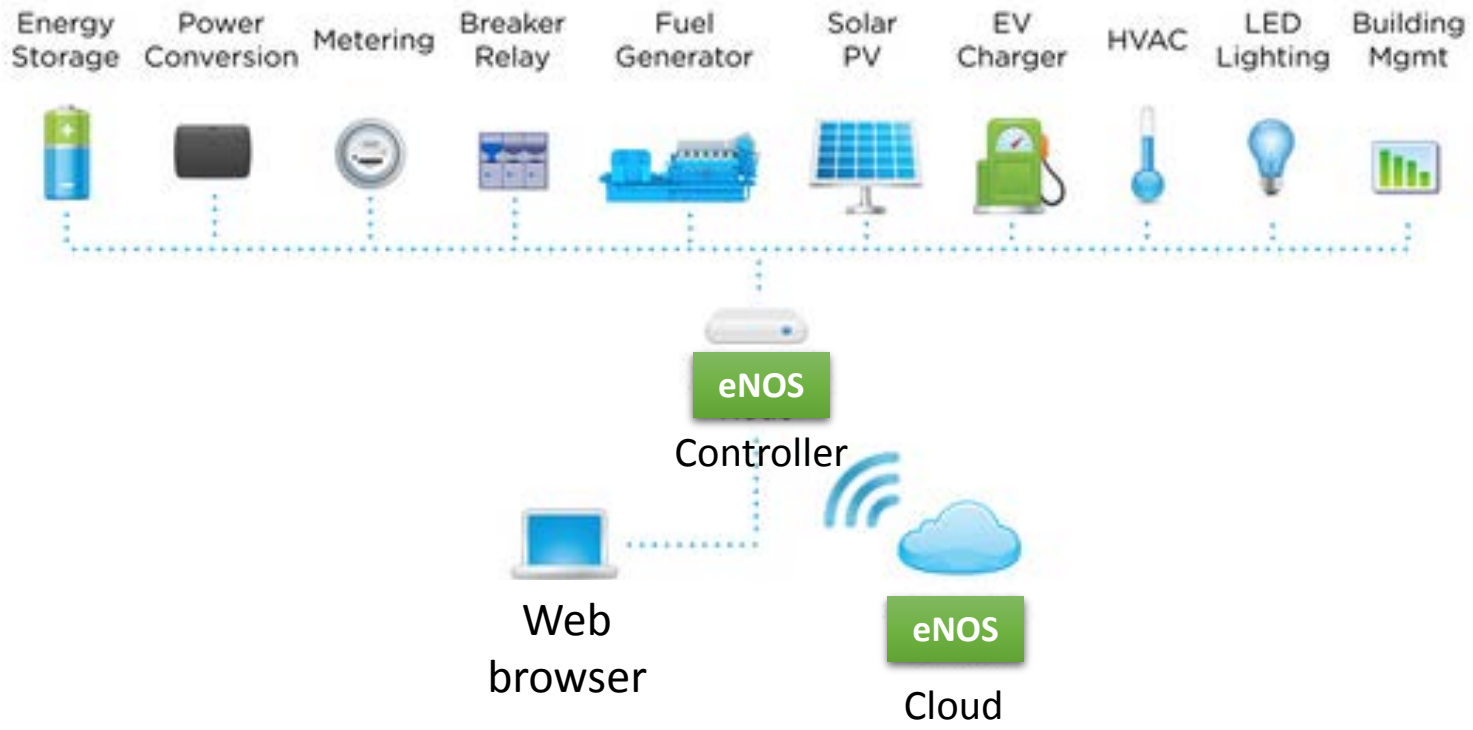
Modular OSGi Design

the whole system

From sensors & switches

To buildings & campuses

To virtual power plants
(The energy marketplace)



eNOS

Scheduler
Executes control logic for Supply & Demand Subsystems based on agent based prioritization engine.

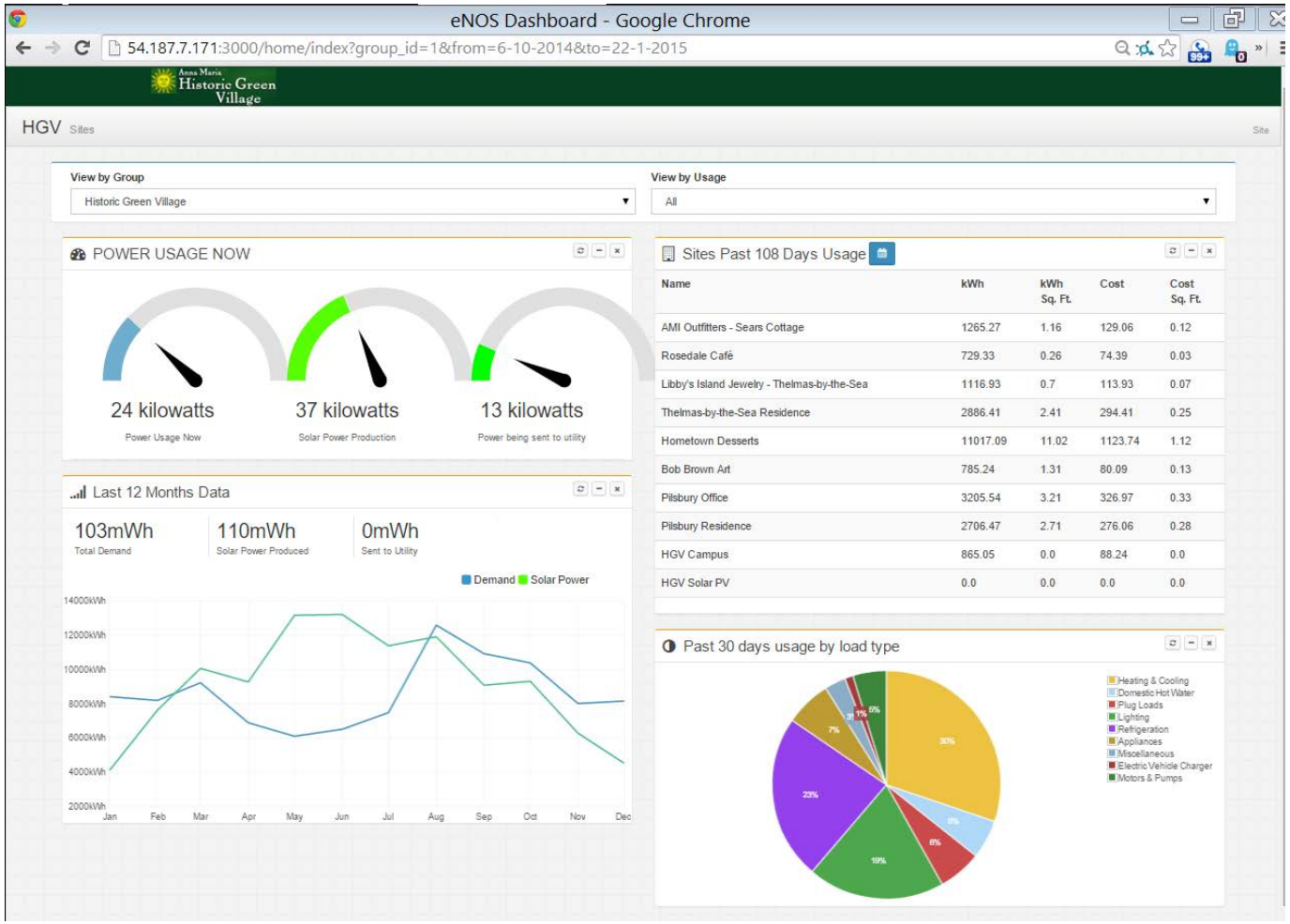
Forecaster
Real-time, intra-day and day ahead supply & demand forecast based on historical load profiles, ambient conditions & solar insolation forecasts

dMAN Manager
Monitor, manage and control loads

Message Bus – device discovery, data acquisition, device status, event & notification management

batMAN energy storage manager
Monitor, manage and control battery SOH, charge & discharge

Power Broker
Economic Dispatch, Demand Response & openADR

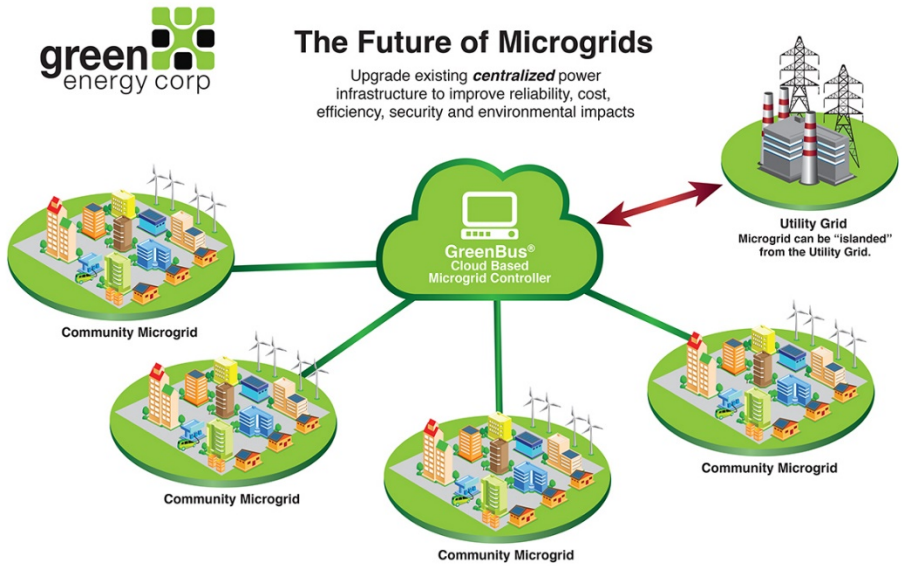


Dashboard/UI
Present, analyze & visualize systems performance

eNOS

openHAB open source protocol & vendor agnostic ***device control***

eNOS



GreenBus open source protocol & vendor agnostic ***middleware and cloud services***