



Annual Meeting 2019

Evolving Transmission, Distribution, and Customer System Coordination

**Wednesday, September 11 –
Thursday, September 12**
Austin, Texas



State Examples of Communication Network Coordination

Michael Dowd, Moderator

Ted Ko

Tricia DeBleeckere

Marcus Hawkins

Jason Allnutt



DER Communications Policy Themes

National Council on Electricity Policy
September 2019

stem

Stem Overview



Stem operates the world's smartest and largest digital energy storage network

Founded:	2009
Headquarters:	Millbrae, CA
Employees:	140+
Operations In:	CA, HI, NY, TX, MA, Japan, ONT
Pipeline & Installed:	900+ sites, 250+ MWh
Installed:	400+ sites, 3.5M+ device hours
8 utility contracts:	350 MWh
Project Finance:	\$650 MM

High Caliber Global Investors



RWE

MITHRIL



ANGELENO GROUP



Distinguished Honors & Awards

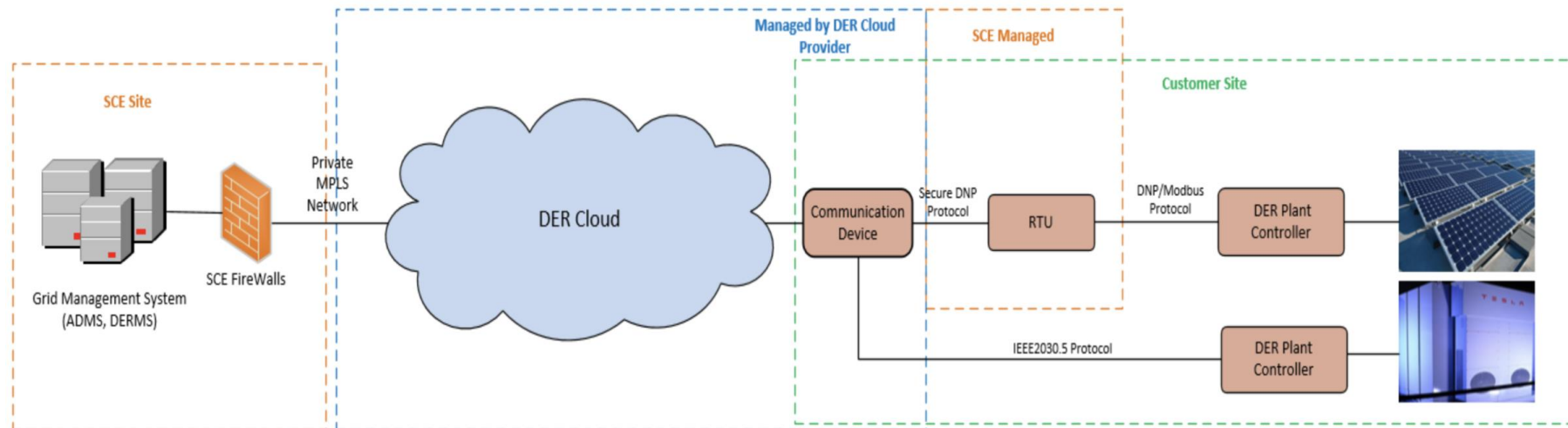
Greentech Media: 2018 Grid Edge Innovation Award
SEPA Power Player 2017: Innovative Partner of the Year



Needs vs Costs

Communications Regulations should come from Engineering Design Requirements

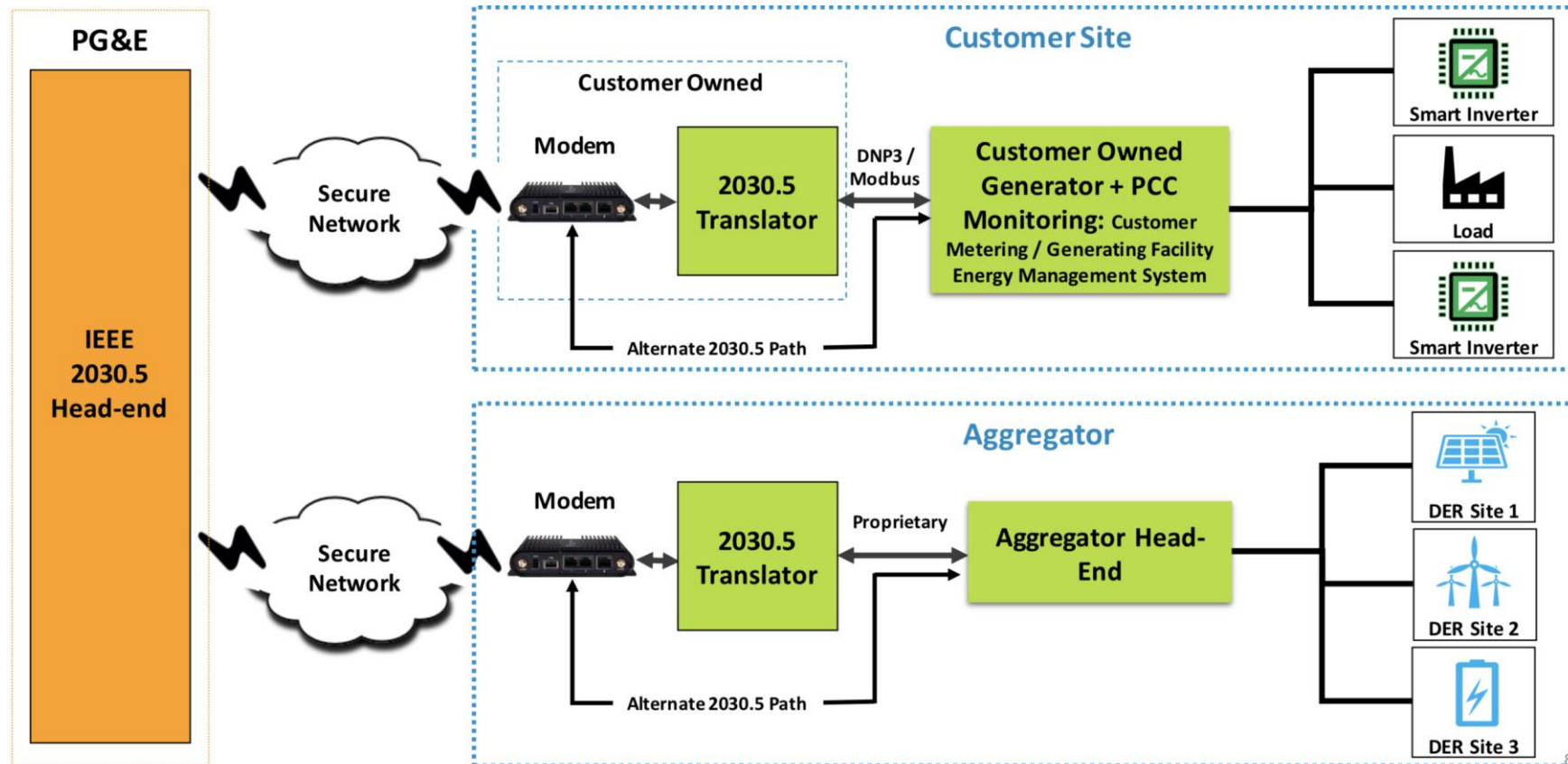
- What data, how often, how fast => WHY?
- California Rule 21 – Telemetry required for installations > 1 MW
- Proposal to reduce threshold to 250 KW and eventually require for all
- CPUC required utilities to file cost-benefit analysis



Southern California Edison
Telemetry workshop presentation
June 2019

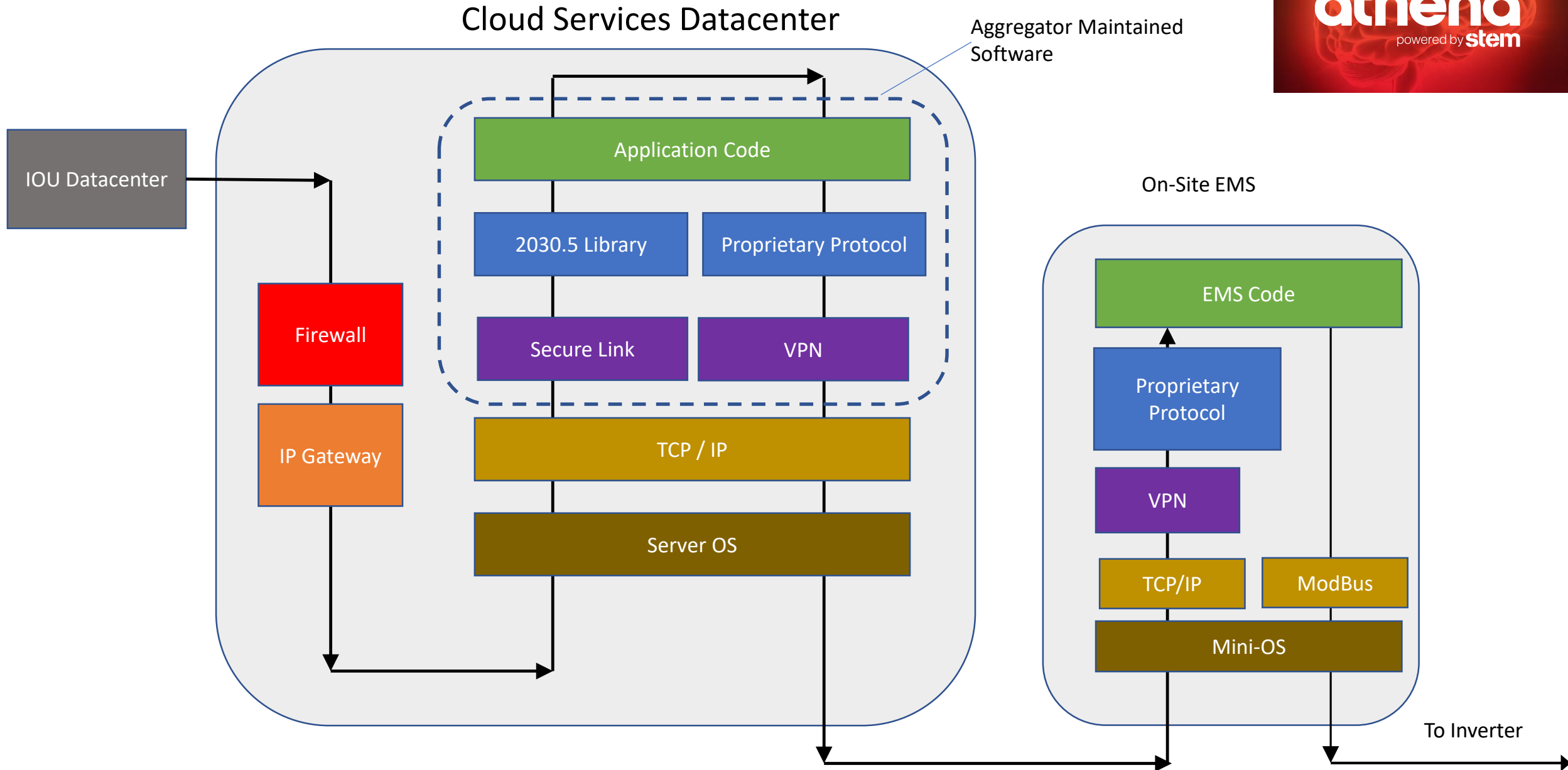
Capability vs Operational

Operation of communications unnecessary until grid operator will receive and use information



Pacific Gas & Electric
Telemetry workshop presentation
June 2019

Hardware vs Software





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