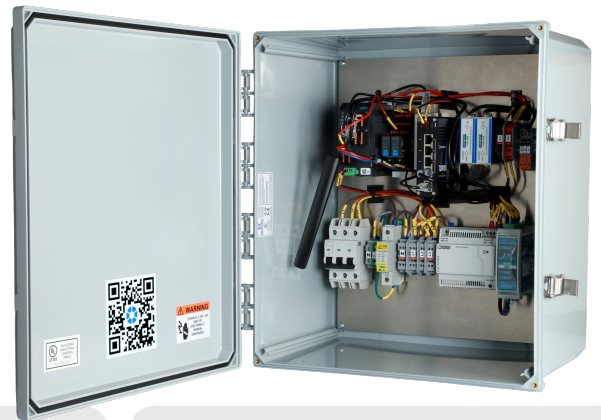


Edge Compute Node (ECN)

A flexible utility-grade hardware solution with embedded intelligence facilitating DER connectivity and control at the edge.

DER fleets are fragmented across protocols, vendors and legacy infrastructure. The ECN simplifies integration, enables local control and provides real-time operational visibility through a single edge platform.



Connectivity & Interoperability

- Normalizes data across heterogeneous DER assets: legacy + modern
- Open-source driver library removes vendor lock-in and eliminates repetitive integration work across fleets
- Real-time translation across OpenADR, DNP3, SunSpec Modbus, OCPP, OSCP and vendor's proprietary protocols and APIs

Intelligent Edge Control & Analytics

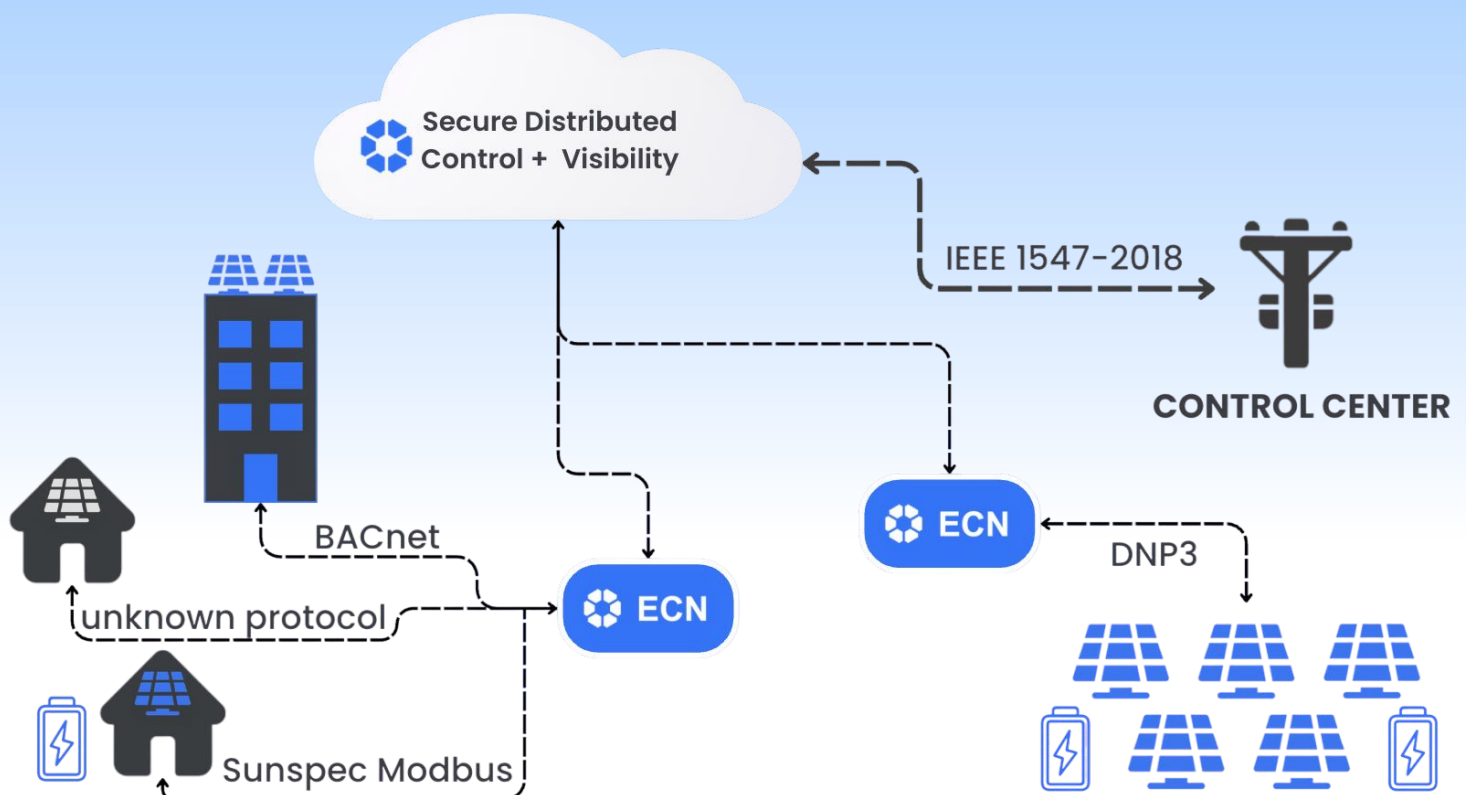
- Real-time event reporting and second-level telemetry for reliable distributed operations
- Execute hierarchical control strategies for advanced inverter control, demand response and VPP participation
- Train and deploy any ML inference with Ecosuite's SolarQuant

Secure Fleet Operations

- Utility-grade cyber security architecture
- Hardware specific identities, encrypted communications and bidirectional non-repudiation
- Controlled onboarding and real-time constraint enforcement
- Maintain operational continuity during network outages

The Edge Compute Node (ECN) is fully interoperable - unifying legacy, modern and future yet to be invented DERs. It normalizes differing communication protocols and enables distributed control with granular visibility.

- Real-time DER status monitoring with telemetry down to the second
- Distributed execution of Volt-Var, Volt-Watt, curtailment and demand response controls
- Leverage local control for feeder and hosting-capacity management based on grid constraints
- Coordinated orchestration across solar, BESS, EV charging and flexible loads such as buildings
- Real-time event reporting and fully timestamped operational data export
- Local fail-safe operation during network or operational outages
- Accelerated Interconnection leveraging dynamic curtailment (see ecosuite.io/zero-ix)



Ecosuite's Abstract Outstation applies Utility signals to different parts of the distribution system based on the Utility's preferred abstraction approach. This translates high level commands to low level control over DERs at the edge.

