SkyCentrics

Operational Intelligence for the Built Environment

Providing rapid deployment of standards-based communication for infrastructure assets

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C4SB FOUNDATION

THE LINUX FOUNDATION

Beyond HVAC. Beyond Niagara. Beyond SkySpark.

• **Traditional BMS/BAS sees only part of the building** (primarily HVAC) and rarely coordinates solar, batteries, meters, lighting, or thermal resources.

• Niagara/JACE are expensive, “downward-facing” (not cloud-native), and require hours of manual labor and point-mapping to bring data out of buildings.

• SkySpark-style analytics lack modern database infrastructure, and struggle to integrate bidirectional communication (supervisory control)

SkyCentrics provides a low-cost, open source, standards-based alternative to the legacy building tech stack.

SkyCentrics is the Infrastructure Solution for Modern Buildings

Capability	HVAC-only BMS/BAS	Niagara / JACE	SkySpark-style analytics	SkyCentrics
Multi-Asset scope	Limited	Partial	Partial	**Yes**
Full Edge compute Capability	No	Limited	No	**Yes**
Real-time data to cloud	Partial	Partial	Partial	**Yes**
Native AI Integration *images, documents, live data*	No	No	Analytics	**Yes**
Docker / Kubernetes local apps	No	Limited	No	**Yes**
Bidirectional grid signals + controls	Limited	Limited	No	**Yes**

Super SkyBox brings modern compute into the building

WHAT IS THE SUPER SKYBOX?

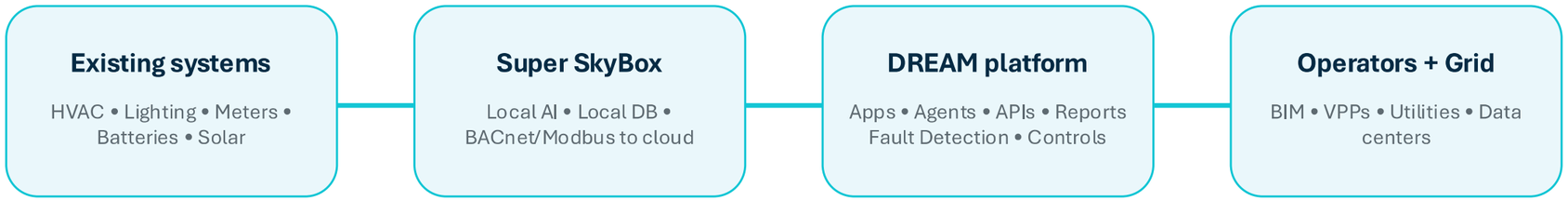
- Low-cost Linux-based computer installed alongside existing systems – **no need for wholesale replacement**
- Automatically discovers Modbus, BACnet, and other points from systems on site.
- Securely brings operational data into SkyCentrics cloud for human and AI analysis.

Not Just a "Pipe" – Cloud + Edge Control

- **Provides local database + AI** when latency, cybersecurity, or connectivity concerns exist.
- Write and run custom Python applications on a modern technology stack (DuckDB in-cloud and on-premise)
- Provides backstop supervisory controls if cloud connection is lost.

SkyCentrics Super SkyBox, starting price: $499

SkyCentrics provides the missing infrastructure layer



- Connects to existing assets through standard building protocols (BACnet, Modbus)
- Normalizes data into a semantic model (easy for AI to parse and understand).
- Enables local + Cloud AI supervisory control, secure cloud sync, and portfolio visibility.
- Provides data through APIs, no-code integrations, and native export paths.

See data in Minutes

A repeatable field workflow turns photos and quick access to live telemetry into a live RDF building model.

01 **Capture site context**
Photograph panels, equipment labels, wiring, meters, and location details so the model can build asset relationships and project knowledge .

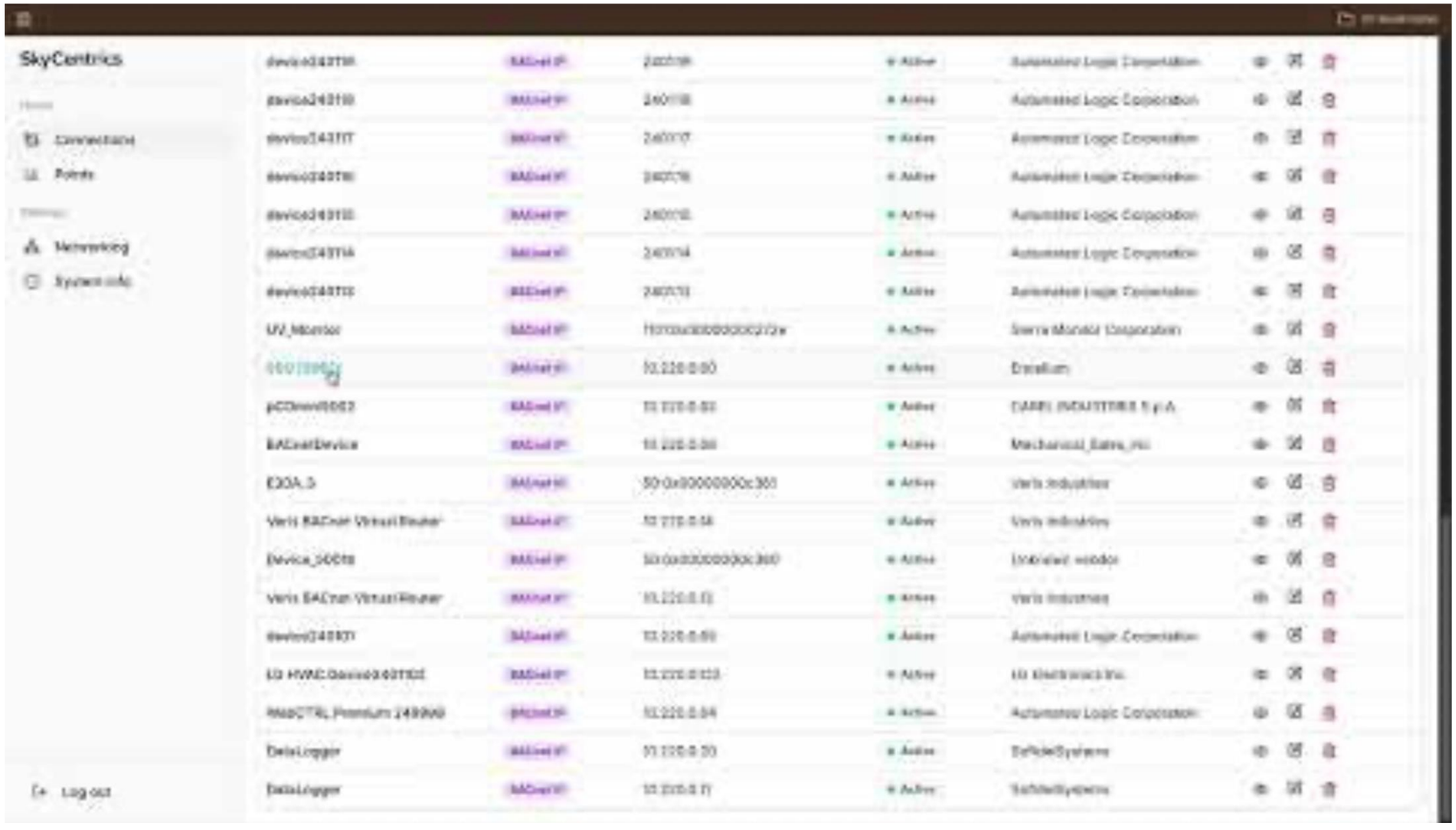
02 **Install the Super SkyBox**
Drop in a Super SkyBox near existing controls or near any islanded equipment

03 **Discover live points**
Run BACnet/Modbus discovery across HVAC, meters, PV/BESS, lighting, and other connected systems.

04 **See it in DREAM™**
See telemetry points, uploaded photos and documents, and configure alerts/dashboard into a portfolio-ready view.

Field installation: Super SkyBox in installed in controls panel

Demonstration: BACnet Point Discovery on DREAM



SkyCentrics Sees the Whole Picture

DREAM combines telemetry, system relationships, documents, and photos so AI can reason with whole-building context

223 Semantic data model
231 Control sequences

Super SkyBox for Microgrid control

At the PAE Engineering headquarts (PAELB), Schneider Ecostruxure manages the solar PV and BESS. However, lack of whole-building context misses key value opportunities, and can make mistakes without proper oversight

1. Battery charging coincides with building peaks

2. Over-Export causes islanding of BESS, PV shutdown

Schneider EcoStruxure Microgrid controller

PAE Living Building: 5 y/o net-zero "living" building using SkyCentrics Super SkyBox + DREAM™ for visibility and optimization

Example Failure: Grid Peaks due to lack of context

At PAE Living Building, the BESS was configured to charge every Monday at 6:00 AM.

What the graph shows

- Every Monday at 6:00 AM, the battery begins charging on a fixed schedule, pulling **60KW** of power, spiking building load over **100KW**

Blue = BESS charge/discharge power; orange = whole-building active power.

Systems operating without context often can do more harm than good!

Example Failure: curtailment miss → “islanding”

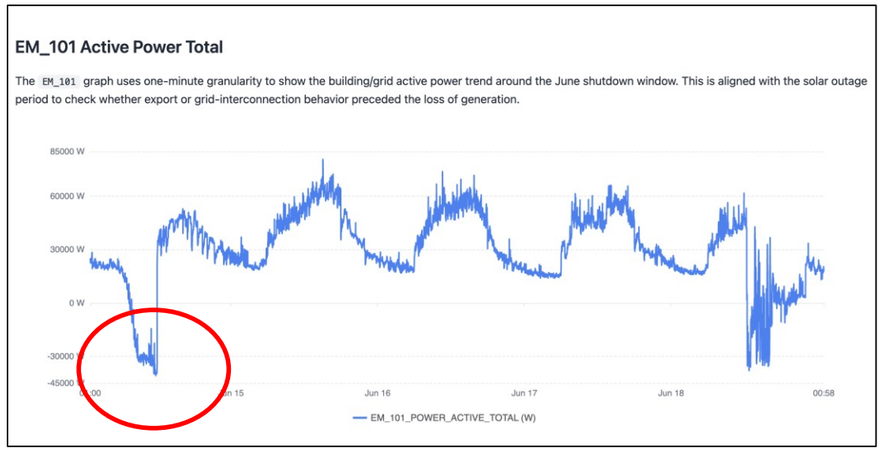
What goes wrong when the microgrid lacks whole-building context:

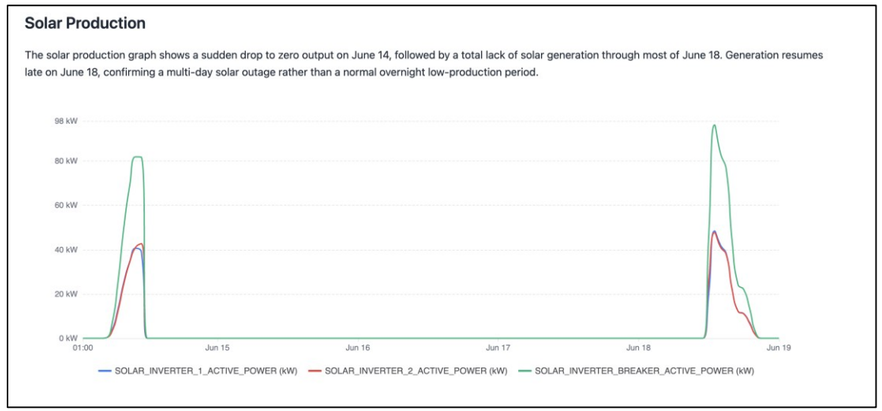
- Grid/export limit of 48KW
- PV output stays high while building load drops.
- BESS dispatch or controller mode is not updated fast enough, emergency mechanism trips breaker
- **Result: unintended “islanding” of BESS/PV**

Cost of PV Curtailment:

- Loss of energy from solar PV
- Increase of grid peak when system “islands” for 24+ hours
  - One failure can raise rates for the next 12 months!

https://dream.skycentrics.com/reports/preview/Heyio6X933cl6alBtYHQkwYKhlUyVDZakOcFdpPrVof1





Smarter microgrid control, lower integration cost

Capability is not the differentiator. Integration cost, configuration effort, and repeatability are.

Schneider microgrid control

- Requires needs “bespoke” engineering to ingest building points
- Requires manual mode-switch to changes operational states
- Designed for ‘worst-case’ – all modes are optimized for islanded mode, rather than daily FLEX
- Customization requires $10,000–$20,000 to do anything
- Often lacks “whole-building context” unless mapped point-by-point

DREAM™ supervisory control

- Uses awareness of whole-building and individual asset operations to inform optimal charging patterns
- “plug and play” ready – controls are implemented on the DREAM™ platform, or on-premise on custom Python apps
- AI-enabled: Allow “human in the loop” supervisory control based on agent analysis and recommendation

SkyCentrics Microgrid Control: Faster, Cheaper, and neatly integrated into your existing building stack

SkyCentrics

Flexible Interconnection for Data Centers

Flexible Interconnection: An alternative grid interconnection approach that allows data centers and other large energy loads to **connect to the grid without waiting for traditional utility network upgrades** – Provided they are able to reduce a portion of their energy load on demand

Data centers need power faster than the grid can deliver

AI demand is driving large new electrical loads while grid infrastructure lags behind.

- Data centers can be built faster than full firm grid service can often be delivered.
- Capacity auctions have reached price caps 3 years consecutively, and fallen short of reserve targets 2 years in a row.
- The electrical grid has adequate headroom to support the power needs of data centers more than 99% of the time. Constraints often occur just 35-70 hours per year

SkyCentrics provides operational control and verification to bring data centers online faster

Why It Matters:

Data centers that can “FLEX” reduce waiting period for grid interconnection by 3-5 years

- **SkyCentrics provides the orchestration to operationalize grid signals into predictable load reductions, and create verifiable reports to confirm compliance**

Immediate Value

• Avoid waiting for long-term transmission and generation upgrades before operation can begin.

• Use existing grid headroom during normal conditions (99+% of the time)

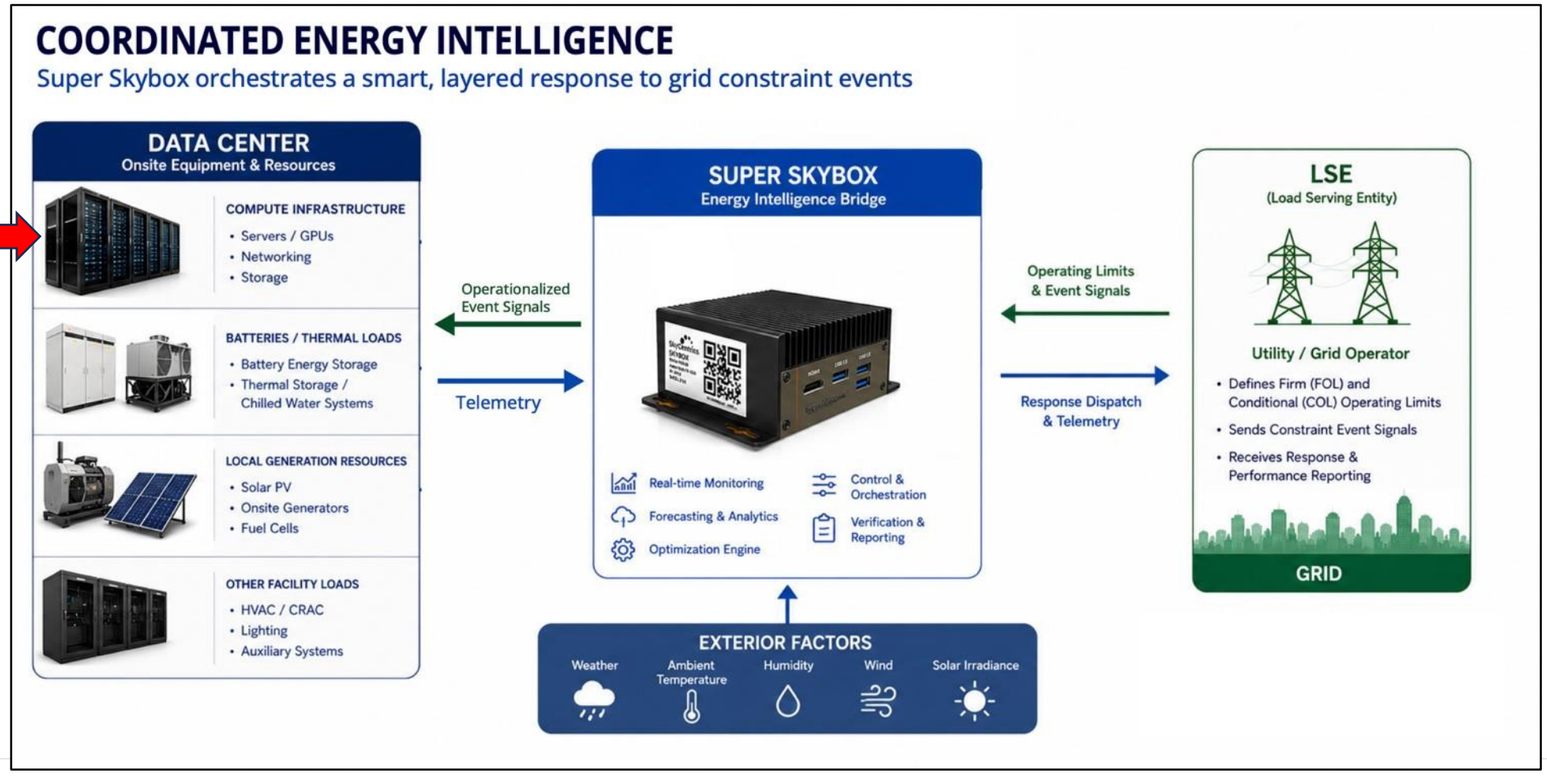
Long-Term:

• The same FLEX capability can support demand response, capacity, or ancillary-service programs.

• Large baseline loads become dispatchable grid resources in constraint conditions

- **Data Centers need translation of grid signals into actionable commands.**
- **Grid operators need proof of event response.**
- **SkyCentrics provides the infrastructure layer to connect them.**

Opportunity:
Additional value through compute throttling – Emerald AI



SkyCentrics

Your Infrastructure Portfolio, Modernized

SkyCentrics transforms legacy assets into AI-native, grid-responsive infrastructure.

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