Adaptive and autonomous controls for smart buildings

Implement control strategies that learn and adapt to changes in building operating condition with **Adaptive Automation.** Our customers get 6-9 months simple payback and ongoing monthly savings.

VERDIGRIS

"Ensuring guest comfort and controlling energy consumption is a delicate balancing act for Grand Hyatt San Francisco. Verdigris new Adaptive Automation extension for their electrical energy management platform is making it a whole lot easier. We are reducing consumption annually without requiring action by our facilities team and zero impact on guest comfort."

- Ken Keidan, Director of Engineering, Hyatt Hotels Corporation

HYATT

What Makes Us Different

Quantified Savings

Real-time, continuous data, available 24/7. Our service includes real-time energy dashboards and performance reporting for trusted results.

Adaptive Controls

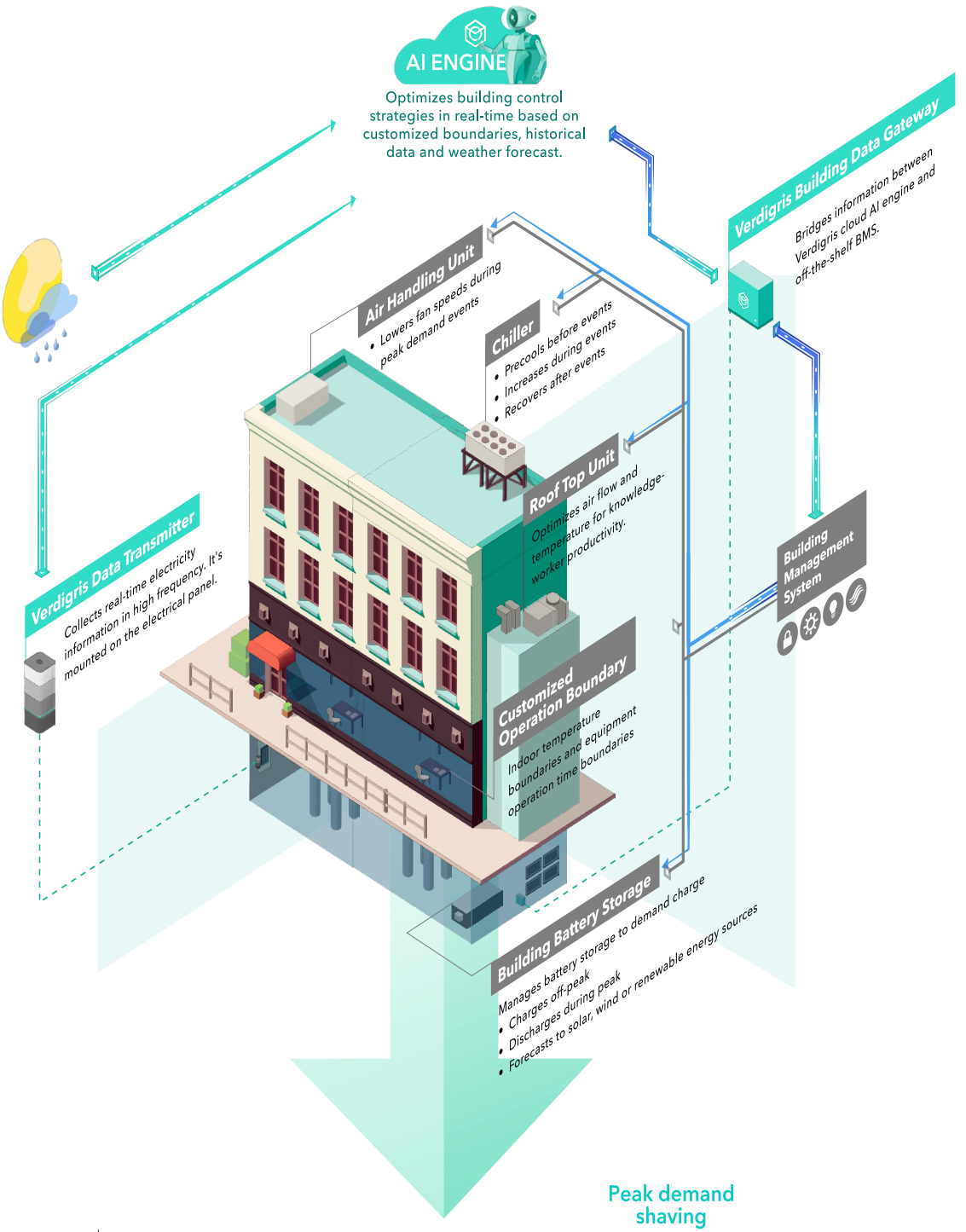
Continuously gather short term energy usage, seasonal trends, weather, utility and building operating data. The optimization engine adapts to new contexts and implements control strategy and timing.

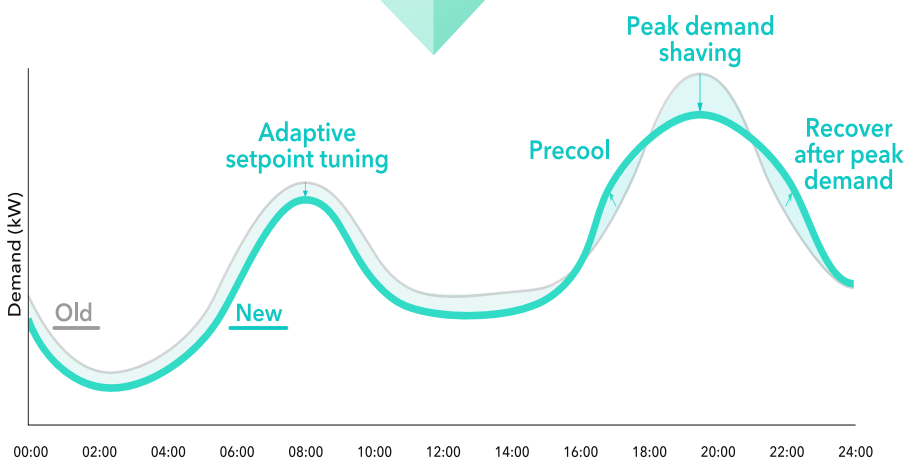
Cost Effective

Proprietary connected metering technology and machine learning replace expensive manual analysis and corrective action processes.

Learn more or reach us at www.verdigris.co/Adaptive_Automation

VERDIGRIS





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VERDIGRIS

Verdigris Commercial Buildings Solution

100% compatible with any buildings or equipments

4G/LTE or WiFi data transmits (optional)

SMS/Email alert via mobile app

24/7 analytics tool on web dashboard

Auto weekly & monthly reports

Realtime lobby display support (optional)

Breaker Panel Types Served

The Verdigris system works with a near limitless range of breaker boxes, sub-panels, and electricity mains serving any building type. The system hardware can be mounted externally on the outside of breaker panels, or on a nearby wall or junction box.

- Panel and voltage types (up to 42 breakers/panel):
  - split-phase 100-277V
  - three-phase 120/208V
  - three-phase 240/416V wye
  - three-phase 277/480V wye
  - three-phase 277/480V delta*
- Frequency: 50-60 Hz
- Current measurement range (Amperage): 1A - 10,000A

* Depending on your physical space, three-phase delta panels may require an additional accessory. For more info see http://verdigris.co/faq or contact your account representative.

Data Available to You

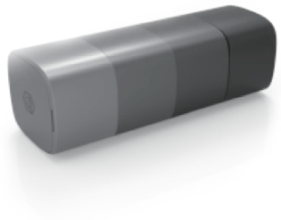
Your high resolution data is transmitted wirelessly via Verizon 4G LTE or through WiFi, stored on the cloud, and is available 24/7 from any desktop, laptop, tablet, or smartphone web browser. You can also download a csv of your data or connect to our API at anytime.

- Precision: 10mW
- Sampling frequency: up to 7.68 kHz
- Data access via API: unlimited
- Historical data availability on the web:
  - 1-minutely: indefinite
  - 15-minutely: indefinite
  - 1-hourly: indefinite
  - Daily: indefinite

VERDIGRIS

Data Transmitter

- Physical Dimensions: 10.25 x 3.5 x 3.5 inch [260 x 88 x 88 mm]
- Voltage Range: 100-277 VAC CAT III*
- Frequency Range: 50-60Hz



- Cable Max Voltage: 600V
- Temperature Range: 0 - 40C
- Power Requirements: Must tap voltage from circuit breaker

* CAT III-rated instruments are primarily used on fixed installations, distribution boards, and circuit breakers and can withstand the specified voltage range

Data Transmission

- 4G/LTE: Bands 3,4 and 13*
- WiFi: 802.11 b/g/n

* For additional band support inquire with your account representative

Current Transformers (CTs)

Verdigris offers two types of CTs: (1) Verdigris Smart CTs for sensoring individual circuit breakers (< 90A) in tight spaces and (2) High Current CTs or Rogowski Coils for larger amperage circuits. High Current CTs integrate to the data chain using the Generic Interface Module (GIM) adapter.

	Verdigris Current Transformer	High Current Current Transformer	Generic Interface Module
Max Circuit Ampacities	90A per circuit	Up to 10,000A per circuit (custom sizes available)	
Sensor Accuracy	±2%	± 0.5% error for an individual circuit	
CT Accuracy Range (% of rated current)	1%-100%	10%-120% 0%-100%	
Physical Dimensions	2.2 x 1 x 1 inch [56 x 24 x 25 mm]	Varies by Amperage	2.4 x 2.4 x 1 inch [60 x 60 x 25 mm]
Temperature	0-40°C	0-40°C	0-40°C
Max Conductor Size	4 AWG [21.1mm²]	Varies by Amperage	2.4 x 2.4 x 1 inch [60 x 60 x 25 mm]
Max Wire Size	Including insulator 58.6mm²	Varies by Amperage	

Safety Certificates

- UL 61010
- IEC 61010-1:2010
- CAN/CSA-C22.2 NO. 61010-1-12
- CAN/CSA-C22.2 NO. 61010-2-030-12

Wireless

- EN 61326-1:2013
- EN 55011:2009+A1:2010
- CISPR 11:2009+A1:2010
- FCC Part 15 Subpart B:2015
- ICES-003:2014

Environmental

- RoHS
- WEEE

CE FC RoHS