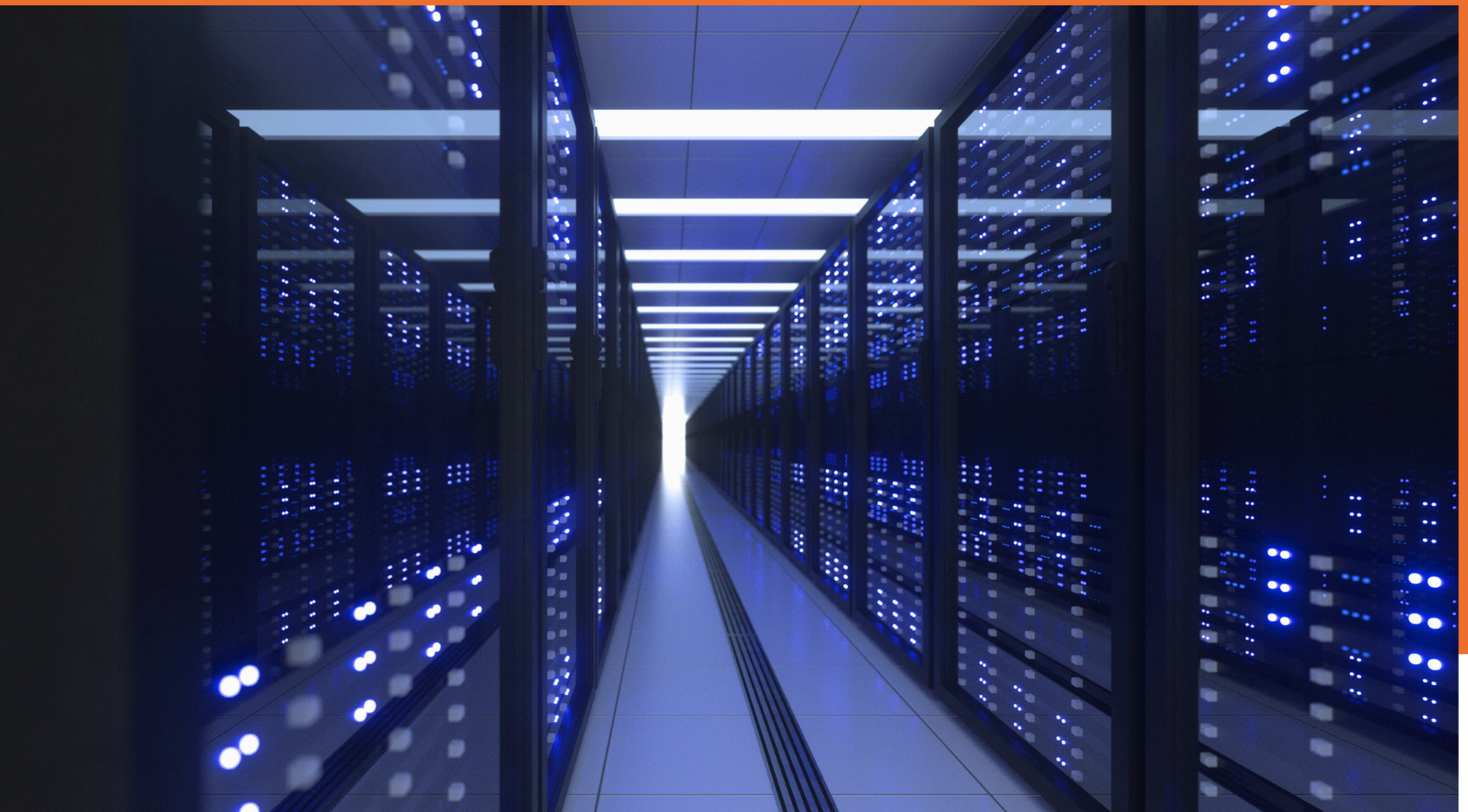
EdgeTunePower

IT-2000 PLATFORM



EMS

Energy-Management-System

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PMS

Power-Management-System

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PPC

Power-Plant-Controller

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THE IT-2000 PLATFORM

Revolutionizing Power Management for Modern Applications

The iT-2000 Platform is a cutting-edge power management solution that integrates Energy-Management-System (EMS), Power-Management-System (PMS), and Power-Plant-Controller (PPC) functions into one seamless platform. Designed for the complex demands of MW-level IBR-dominated systems, off-grid hydrogen production, and data centers, it ensures reliability, efficiency, and sustainability across operations.

COMPREHENSIVE POWER MANAGEMENT

EMS (Energy-Management-System):

Employs advanced optimization algorithms to balance energy flow efficiently, reducing waste and lowering costs. This ensures that energy is directed to where it's needed most, enhancing overall system performance.

PMS (Power-Management-System):

Focuses on maintaining operational continuity through real-time load balancing and adaptive control mechanisms. It prevents downtime even during peak power demands or sudden fluctuations.

PPC (Power-Plant-Controller):

Manages seamless coordination between energy generation, storage systems, and consumption points. This ensures stability even when integrating intermittent renewable energy sources like solar or wind.

TAILORED FOR DIVERSE APPLICATIONS

Data Centers

- The iT-2000 optimizes power flow for high-density IT loads and cooling.
- It provides real-time monitoring of temperature and humidity to extend equipment life and reduce energy use.
- Its scalable architecture enables data centers to expand without losing efficiency.

MW-Level IBR-Dominated Systems

- Balances variable energy inputs from solar, wind, and other renewable sources.
- Ensures stable power delivery for complex systems with dynamic loads.
- Enhances system resilience through proactive monitoring and control.

Off-Grid Hydrogen Production Facilities

- Coordinates renewable energy inputs with storage systems for continuous operation.
- Reduces downtime by managing peak power demands seamlessly.

ENHANCED RELIABILITY THROUGH HIL TESTING

The iT-2000 Platform is rigorously validated through Hardware-in-the-Loop (HIL) testing, which simulates real-world scenarios to ensure reliability under dynamic conditions. This approach:

- Identifies potential risks and inefficiencies before deployment.
- Enhances system resilience for critical operations like data center management.
- Reduces implementation risks and guarantees optimized performance.

By integrating the iT-2000, a data center can achieve up to a 20% reduction in energy costs while improving system reliability.

SUSTAINABILITY AND ENERGY EFFICIENCY

Renewable Energy Integration:

Smoothly incorporates solar, wind, and other renewable sources to reduce reliance on fossil fuels.

Energy Savings:

High-efficiency power flow and cooling solutions reduce energy consumption and operational costs.

Carbon Footprint Reduction:

Optimized energy usage minimizes environmental impact.

CYBERSECURITY AND REGULATORY COMPLIANCE

Cybersecurity:

Implements advanced measures to protect systems from potential cyber threats.

Regulatory Compliance:

Meets evolving industry standards and future interconnection requirements.

Disaster Recovery:

Ensures data and operational continuity during unexpected disruptions.

KEY BENEFITS AT A GLANCE

The iT-2000 Platform is designed for the challenges of today and the opportunities of tomorrow. Its modular and flexible design ensures that your operations can scale with ease, adapting to new technologies and energy needs. Whether you're managing a state-of-the-art data center or a renewable-powered industrial facility, the iT-2000 empowers you to operate with efficiency, reliability, and sustainability.

For Data Centers:

- Maximized uptime for critical applications.
- Proactive monitoring and predictive maintenance to prevent disruptions.
- Tailored power flow management for high-density IT environments.

For Industries:

- Seamless coordination between energy generation, storage, and consumption.
- Scalable and modular solutions for growing demands.
- Reduced operational expenses (OPEX) through energy optimization

Efficient Connectivity

Timely interconnection of utility-scale IBRs while complying with grid codes.

On-Site Management

Behind-the-meter and feed-in-tariff (FIT) operation of IBRs.

Power Management

Real-time power management between loads and energy sources.

Grid Optimization

Operation of virtual power plants (VPPs) to maximize ROI for asset owners.

APPLICATIONS

SMART ENERGY SOLUTIONS FOR IBRS INTEGRATION AND OPTIMIZATION

Comprehensive solutions for IBRs interconnection, on-site management, power optimization, and grid reliability.

LETS CONTACT US

GET YOUR FREE DEMO TODAY AND EXPLORE OUR ENERGY SOLUTIONS!

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