Revolutionising Solar Energy:

Mission Critical Edge Computing for Solar Energy

SOLUTION BRIEF

Mission Critical Edge Computing for Solar Operations

The modern business landscape is characterized by speed and efficiency, and operations that are critical to success must be able to meet these demands. This is particularly true for Edge Computing and solar farm operations, which must be able to perform optimally in real-time to deliver maximum value. By using the latest in Edge Computing technology and incorporating sustainable energy sources, organizations can achieve a powerful combination of efficiency, reliability, and resilience, enabling them to meet their mission-critical operational goals and succeed in today's fast-paced business world.

Overcoming Challenges

- Complexity
- Integration
- Scalability
- Connectivity
- Maintenance and upgrades
- Reliability
- Cost
- Intermittent power supply

Benefits of Mission Critical Edge Computing

Real-time monitoring and control
Edge Computing allows for real-time data analysis and decision-making at the source, which is important for optimizing the performance of the solar farm.

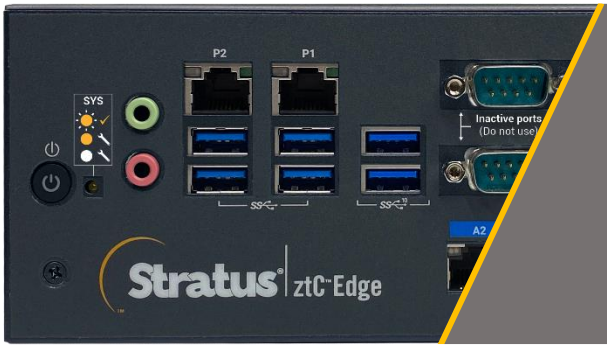
Improved security and reliability
Edge Computing allows for local monitoring and control of solar farms, which can help to improve security and reliability.

Reduced latency
By processing data locally, Edge Computing reduces the time it takes for data to be analysed and acted upon, improving system responsiveness.

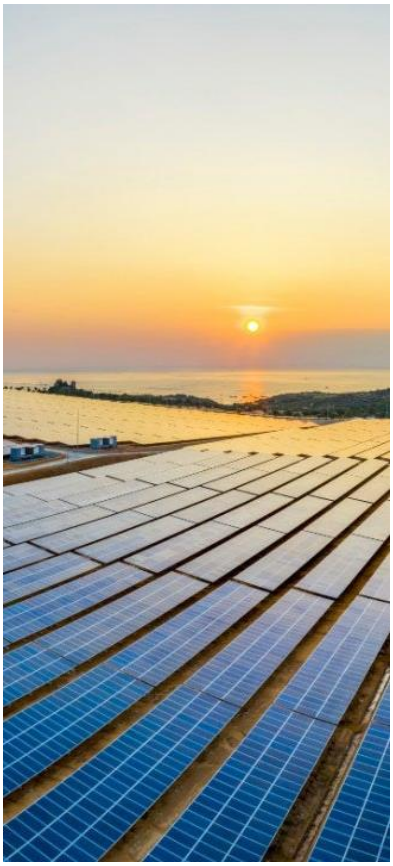
Cost savings
By processing data locally and reducing the need for sending data to a centralized location, Edge Computing can help to reduce costs associated with data transmission and processing.

Predictive maintenance
Edge Computing can be used to predict when equipment is going to fail and schedule maintenance before the failure occurs, which can help to keep the solar farm running at optimal efficiency.

Scalability
Edge Computing allows for the deployment of multiple small systems that can be easily scaled based on the needs of the solar farm.



Protecting critical operations at the edge, where speed and efficiency meet.



Use Cases for Edge Computing

Real-time data processing: Processing sensor data from solar farm in real-time enables them to quickly identify and respond to any issues or anomalies.

Predictive maintenance: Analysing sensor data from solar farms to predict when maintenance is required, reduces downtime and increases the overall efficiency of the site.

Control and optimization: Control and optimisation of solar farms, ensures that they are operating at peak performance and maximizing energy generation.

Autonomous operation: Reduces the need for human intervention and increasing the overall efficiency of solar farms.

Security: Detect and respond to cyber threats, protecting solar farms sites from potential attacks.

Remote monitoring: Remotely monitor and control solar farms, reducing the need for on-site personnel.

Data storage and analytics: Store and analyse large amounts of sensor data, providing insights that can be used to improve the performance and efficiency of the farm.

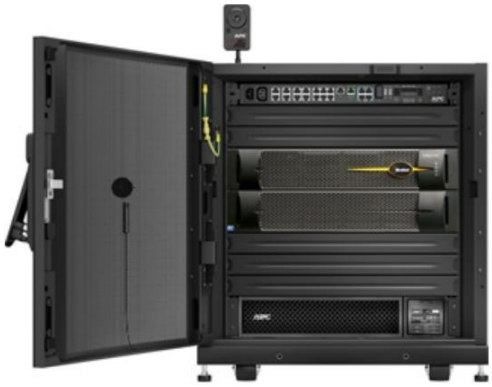
Fault detection and diagnosis: Detect and diagnose faults, reducing downtime and increasing the overall efficiency of solar farms.

Real-time performance monitoring: Real-time monitoring of battery health, charge and discharge rate support site longevity.

Not all Mission Critical Computing Platforms are Equal!

Our secure, rugged, highly automated computing solution delivers redundant virtualized industrial applications quickly and easily, improving productivity and reducing risk.

- Integrated virtualization and availability
- Redundant server design
- Automated protection and recovery
- Industrial interoperability
- OT maintainability
- Health monitoring and fully managed support



About Stratus

Stratus ensures the continuous availability of business-critical applications for the most demanding environments. For over 40 years, we have provided reliable and redundant zero-touch computing, enabling organisations to turn data securely and remotely into actionable intelligence at the Edge, cloud, and data center – driving uptime and efficiency.

Our Service offering:

- System design and sizing
- Proof of Concept and testing
- Full solution stack deployment
- Site commissioning
- Education and certifications
- Fully managed services

Expand your knowledge.
Talk to us today!

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