eIoT EDGE
compute module

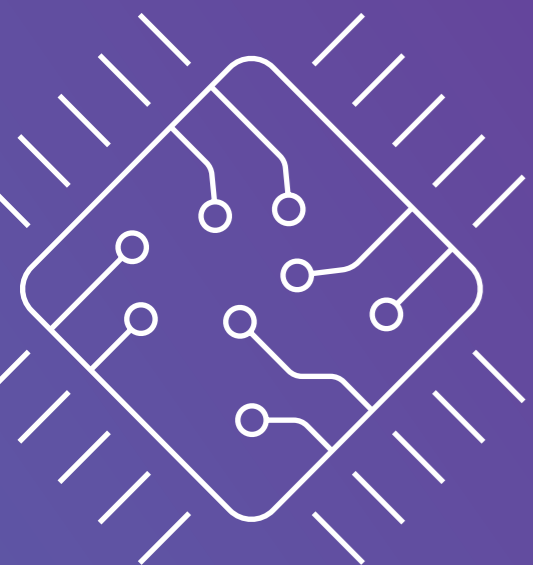# One module - infinite energy innovations

Navigating the energy transition

The transition to energy efficiency is fraught with challenges. In recent years we have seen the accelerated growth of digital technologies, the Internet of Things (IoT), and the growing demand for smart energy solutions.

Traditional energy management infrastructure and its core - smart metering, while essential, are limited in their capability to adapt to the evolving energy market demands.

The eIoT EDGE compute module is our answer to these challenges, offering unparalleled flexibility, integrating various applications within its open technology.

The eIoT EDGE compute module enables the digitization of networks, the transition to advanced energy services and introduction of new applications to improve energy efficiency and infrustructure robustness. It upgrades the smart energy meter (which serves as a data source) and acts as an accelerator of various energy services and applications.

An ambitious leap with EDGE compute

The solution is built on the smart energy meter, which acts as a data source. It incorporates powerful machine learning and artificial intelligence applications. Smart meters are upgraded with an additional EDGE compute module that enables complex data processing, scalability, and is open for integrations with external partners. Our technological partners can develop applications on an open platform, fostering the development of an innovation ecosystem.

The EDGE compute functionality can be integrated into an existing meter infrastructure.

Our platform redefines the capabilities of smart meters, introducing:

- **Open development ecosystem:** Encouraging innovation through external partner collaboration.

- **Advanced data processing:** Harnessing AI and machine learning for real-time insights.

- **Modularity and flexibility:** Allowing for simultaneous execution of multiple applications.

- **Rapid deployment:** Streamlined development with a DevOps approach, ensuring swift market responsiveness.

Discover the key features of eIoT EDGE compute module

Unique feature: open development platform

The eIoT EDGE compute module stands out as an industry-first open development and technology platform. It invites external vendors to develop and implement their applications, fostering rapid innovation and efficient solution development.

- **Synergy with external vendors.** External partners can write their applications within the EDGE platform. The rules for writing and uploading applications are clearly stated, facilitating a short learning curve and quick time to market, using DevOps principles and possibilities for continuous improvements in the field.

- **Acceleration of breakthroughs:** The platform's open nature significantly reduces development time and accelerates market introduction. Leveraging DevOps methodologies, it enables continuous innovation and rapid deployment of new innovative solutions.

- **Efficient innovation ecosystem:** This approach enables startups and SMEs to collaborate, integrate their solutions, and expand their reach, creating a dynamic ecosystem of innovative energy solutions.

Advanced communication capabilities

- **Global connectivity:** Experience seamless global connectivity right out of the box with the LTE Cat-1 cellular network, ensuring you stay connected everywhere.

- **Redundant connectivity:** Our solution offers dual independent connections, each with four endpoints, for robust and reliable communication. Utilizing LTE technology and dual eUICC cards, it enables two separate data connections to back-end systems. This design ensures distinct management, data transfer, and cost structures, allowing seamless integration of both existing and new functionalities.

Elevated security standards:

The eIoT EDGE compute module is fortified with the latest security technologies and best practices to safeguard customer data against cyber threats. Key features include:

- **Comprehensive data protection:** Utilizing a state-of-the-art VPN to ensure a secure, end-to-end data channel, which remains reliable over lossy and high-latency cellular networks.

- **Robust access control:** Implementing role-based access and an audit logging system to maintain data integrity.

- **Proactive threat detection:** Featuring an intrusion detection system and undergoing rigorous penetration testing to ensure the highest level of cyber resilience.

- **A hardware security module** for secure keys storage per application instance.

Economic and operational excellence

The eIoT EDGE compute module is not just a product; it's an enabler of new applications and a catalyst for new solutions. With its introduction, we project a significant impact on service offerings, ranging from energy management, street lighting, smart home, smart city and many others.

The newly developed platform brings the following benefits:

- Integration of services that contribute to the development of networks and applications in a sustainable manner.

- Energy consumption forecasts: better forecasts and predictions of consumption and production allow us to identify the gaps that need to be addressed, leading to higher energy efficiency, lower losses and better information for system stakeholders.

- Wide variety of applications: offering a comprehensive solution with wide functionalities spectrum to help the customer address its challenges.

Commitment to a greener future

Our module is a testament to our commitment to sustainability. By enhancing existing metering infrastructure, we reduce waste and promote efficient energy use, contributing to the creation of smarter cities and communities.

Iskraemeco: A legacy of innovation

Choosing the eIoT EDGE compute module means partnering with a leader in smart energy solutions. Our strategy, "Innovating for life," reflects our dedication to delivering solutions that not only meet today's needs but pave the way for a smarter, more sustainable tomorrow.

The innovation enables the introduction of services with high added value and the transition from a product-oriented to a service-oriented society.

We view energy data, smart grid concepts, and services as tools to sustain quality of life and mitigate risks associated with critical infrastructure. By incubating and accelerating the development of ideas, we hope to identify novel concepts, accelerate their implementation, engage in new projects, and build a partnership network with teams that are working on improving efficiency and robustness of current infrastructure.

Join us in shaping the future.

Connect with Iskraemeco to discover how the eIoT EDGE compute module can transform your operations and help you lead the way in energy efficiency.

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