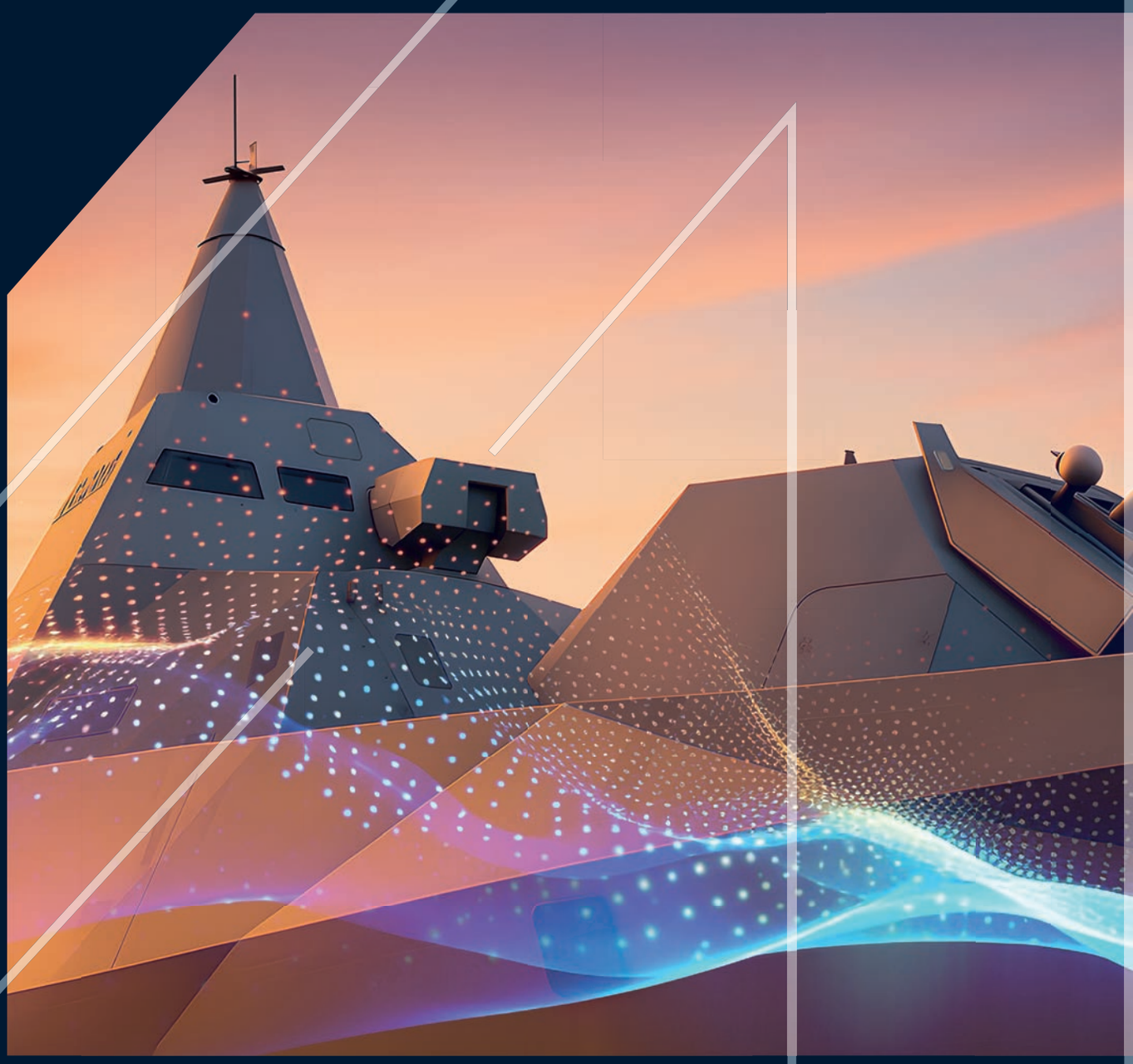
AKKODIS

Mission-Ready Edge Technology for Defense



Technology at the Tactical Edge

As global energy and defense systems grow more complex, the demand for intelligent, resilient, and sustainable solutions is accelerating. AI is transforming these sectors—enabling predictive maintenance, autonomous operations, and real-time decision-making across harsh and mission-critical environments. To meet rising performance and security demands, organizations must rapidly adopt data-driven, AI-enabled technologies.

With over 40 years of industry expertise, Akkodis delivers certified software, IoT, and rugged edge platforms engineered for extreme conditions. Our solutions are built AI-ready—powering advanced defense systems, secure energy infrastructure, and autonomous edge operations that push the limits of operational efficiency and digital sovereignty.

Akkodis Nordics

[Edge Computing]

Edge Computing & IoT for Advanced Security, Autonomy and Connectivity

At Akkodis, we solve complex challenges with smart, rugged solutions tailored for demanding environments.

We serve sectors like Defense, Energy, Mobility, and Maritime with advanced software, AI, robust hardware, and cybersecurity.

Our solutions-as-a-service model ensures close client collaboration and real impact.

With deep experience in embedded systems, we choose the right tech for every unique case.

- **Bridge Display Unit – Optimized for submarine navigation and situational awareness**
- **Frigate Radar Computer – High-performance computing for advanced radar processingnavigation and situational awareness**
- **Multi-Function Mission Computers – Scalable systems for Frigates, MCM vessels, and Submarines**
- **Navigation & Sensor Integration Computer – Radar/ECDIS /Navigation processing for T45 Destroyers**
- **Edge Compute & Networking Suite – Compact computer, PPC, and Ethernet switches for MCM USVs**
- **Submarine PS-TO System – Secure platform support for tactical operations**
- **CMS Subsystems – Modular components for Corvette combat management systems**

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Akkodis Edge Ops Suite

Connect. Compute. Communicate.

With exceptional in-house expertise in defense-grade hardware, we deliver fully integrated end-to-end solutions for secure connectivity, edge computing, and mission-critical communications in the most demanding environments. Our rugged product suite includes the Rugged IoT Gateway for reliable and secure data transmission, the Rugged Secure Communication Node for encrypted, mission-critical data exchange, and the Edge AI Computer for real-time processing at the tactical edge.

Each system is designed, developed, and seamlessly integrated by our team of engineering experts.

01

Rugged IoT Gateway

Collects raw data and prepares it through formatting

Rugged Secure Communication Node

Transmits securely across complex, multi-network environments

02

03

[Concept]

Rugged Edge AI Computer

Analyzes and interprets the data using onboard AI.

Combined,

they create a distributed, intelligent, and secure edge architecture — perfect for defense, border control, autonomous vehicles, or smart logistics.

01

Rugged Edge Solutions

Rugged IoT Gateway

The Rugged Vehicle Edge Computer is a low-power IoT gateway designed for outdoor installation on vehicles operating in diverse and challenging environmental conditions worldwide. It is compliance-tested to meet global radio regulations, ensuring reliable connectivity and performance across international deployments.

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Key Highlights:

The maintenance-free IoT gateway is built for reliable data acquisition and transmission in extreme outdoor and vehicle environments.

It supports 4G LTE, 2.4GHz WLAN, Bluetooth 4.0, and GPS with active antenna. Antenna ports include: 2x LTE (FAKRA D), 1x GPS (FAKRA C), and 1x Wi-Fi/BT (FAKRA I)

A 35P AMPSEAL connector provides interfaces for Ethernet (1x 10/100 Mbit), CAN 2.0b (2x), 1-wire, 2x analog input, 3x digital input (GPI), and 4x digital output (GPO).

Powered by the energy-efficient NXP i.MX 6DualLite, the system ensures ultra-low power consumption.

Its rugged design operates from -40 °C to +80 °C and complies with ISO 7637-2 and E-Mark standards.

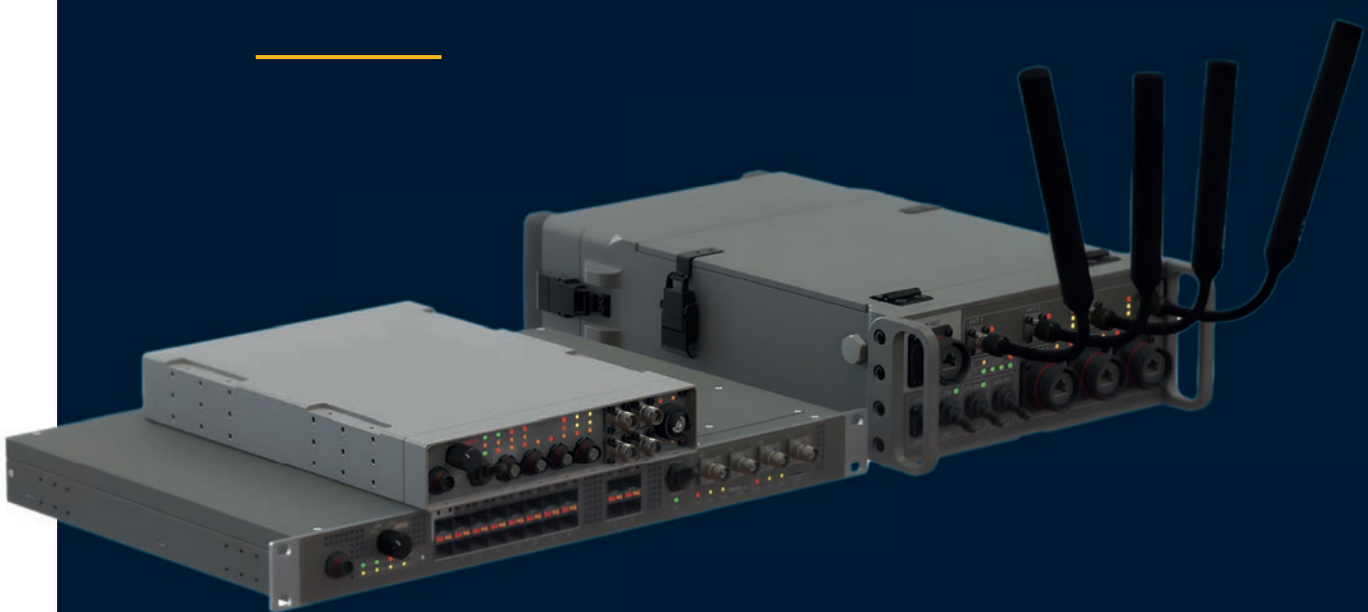
Main Features:

- 4G support
- GPS
- Motion sensors
- Extreme rugged
- WiFi
- CAN
- Analog and Digital IO

02

Rugged Edge Solutions

Tactical Communication Nodes [TCN] for the Armed forces



Secure Communication Units for Man Portable and Vehicle Mounted applications designed for extreme conditions (rugged)

Mini TCN

Weight: only 800 grams

ARM-based architecture

Sensor deployment capability

Key Highlights:

These rugged and compact communication nodes are designed for both portable and platform-mounted use, making them ideal for tactical communication in both On-the-Halt and On-the-Move scenarios.

They support fixed line and mobile connectivity, including 4G/LTE, 5G, and Mobile Ad-hoc Networks (MANET), and are suitable for high-grade, low-grade, and unclassified WAN/LAN communication infrastructures. Built on an SD-WAN router framework, the units feature a SWaP-optimized IP67 chassis and are qualified to MIL-STD-810 (environmental), -461 (EMC), and -1275 (vehicle power) standards depending on the model.

Available in ½ 19“ or full 19“ form factors, they also provide mounting provisions for third-party crypto modules.

Main Features:

- Rugged 19” Gigabit Ethernet Router
- Fixed RJ45 and SFP slots
- Optional 4G/LTE, 5G and/or WiFi
- SD-WAN router framework for secure Communication Infrastructure
- Semi-Rugged 19” Chassis
- Optional MIL-1275 power supply
- MIL-STD-810 (Environmental) and -461 (EMC)

03

Rugged Edge Solutions

Empowering Tactical Capabilities

No latency, no bandwidth limits —decisions are made in milliseconds, even when disconnected or jammed. Delivers full AI performance in a compact, shoebox-sized form.

Rugged Edge AI Computer [Concept]

Key Highlights:

Real-time AI inference (object detection, sensor fusion, signal classification). Enables computer vision, RF analytics, and autonomy.

This Rugged Edge AI Computer brings battlefield-grade intelligence directly into the mission space:

- Real-time AI inference with NVIDIA RTX ADA 5000 GPU (Tensor + RT cores)
- Sensor fusion, object detection, and situational awareness onboard, without needing cloud uplinks
- MIL-STD-certified ruggedness for shock, vibration, dust, water, and extreme temps (IP67, -40°C to +60°C)

Fennek II Reconnaissance Vehicle Operator Station

Key Highlights:

The Hensoldt OTAS BAA III is an advanced ISTAR system with integrated cameras and laser sensors for all-condition surveillance, rangefinding, and target designation. Designed for vehicle integration, it is optimized for use in the KMW FENNEK reconnaissance platform.

Rugged 2U Rack Computer for Land and Maritime Applications

Key Highlights:

Powerful, compact, and built for tough environments. With 14th Gen Intel® Core™, up to 192GB RAM, front-access SSDs, and 4 x 2.5Gbit LAN, it's the ideal platform for edge computing, control systems, and maritime applications.

- Main Features – Rugged 2U Rack Computer
- 14th Gen Intel® Core™ processor
- Supports up to 192GB DDR5 RAM
- 4 x 2.5” front-access SSD drawers
- 3 x M.2 slots (NVMe, Wi-Fi 6E ready)
- 4 x 2.5Gbit Ethernet (Intel® I226 chipset)
- Supports 4 independent displays (DP++, HDMI, VGA)
- 8 x USB 3 ports, RS-232/422/485, Audio I/O
- Rugged 19” 2U rackmount for land & maritime use
- IEC 60945 compliant for maritime standards
- OS support: Windows 10/11, Linux

EMBEDDED SERVICES

Akkodis Electrical Solutions Connecting the brain and senses of infantry fighting vehicles

Project Scope

Re-designing vehicle cable harness to meet military demands regarding electromagnetic disturbance to not interfere with advanced communication system (as GPS systems, antennas and radios).

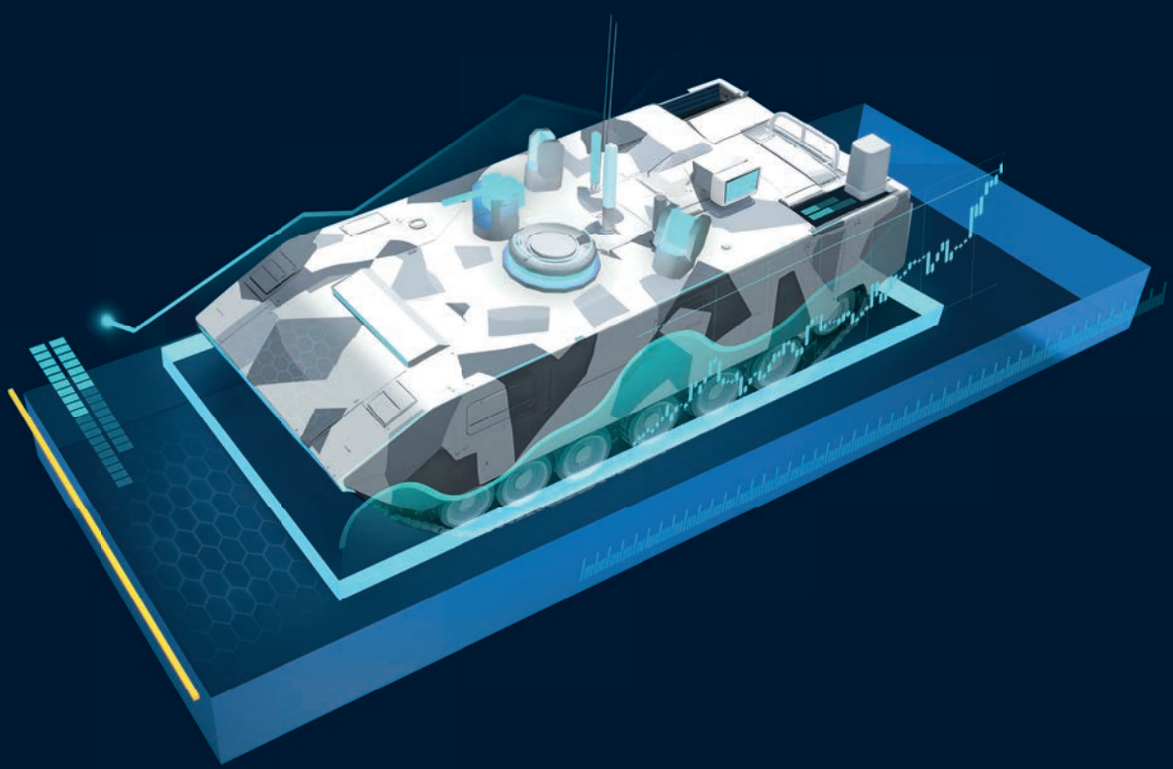
The electrical wiring in military vehicles must withstand extreme conditions such as vibrations, shock, temperature fluctuations, and exposure to harsh environments (e.g., dust, mud, water).

Our Role & Expertise

Design of schematics and circuit diagram connecting all components like ECU's, sensors, weapons, power, ground and other hardware. Managing electromagnetic interference (EMI).

Retracing of all circuit diagrams to create schematics for which changes of cables that is needed.

Design of routing to ensure compatibility as new shielded cables are thicker and stiffer than standard cables. Electrical test and quality check.



Client Value

Ensuring that the wiring harness is robust, using materials and techniques that enhance durability and reduce the risk of electrical failures.

Enhanced operational reliability in military environments.
Reduced interference in mission-critical communication systems.
Seamless integration with existing production processes.

EMBEDDED SERVICES

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Project Scope

The SAAB Kockum emergency position indicator can operate independently from the A26 subs' power through its internal battery.

It can be activated manually or automated by water contact and emits acoustic signals. These signals can then be detected by passive sonar systems on board ships or through handheld diver units, allowing the detection and location of the damaged submarine.

As a life-saving alarm system, the distress pinger guarantees a proven concept with extreme reliability.

Our Role & Expertise

SAAB Kockums contracted Akkodis to develop the A26 emergency transducer.

Designing an emergency distress pinger is a state-of-the-art development with much secrecy required.

Akkodis have unique niche competence in this field, including expertise in underwater acoustics and knowledge of sonar principles, transducer design, hydrophone technology and mechanical Engineering.

We have spent 9 years on the development and delivered SAAB with 6 units so far.

A26 Emergency Position Indicator

Fire control Unit [FCU]

Complete Product Development

Project Scope

Remote weapon station is the most successful RWS worldwide, delivered to multiple NATO member-countries since 1998.

Client needed high-end development capabilities to re-design and produce next-gen of Fire-controll-unit, to complete the re-design and upgrade of their RWS to meet future demands of the battlefield.

The FCUIII integrates daylight video, thermal imagery and laser rangefinder to perform calculations to enable fire accuracy and weapon stabilization, so the RWS can fire “on the move”

Our Role & Expertise

Development, prototype, test/verification, certification and production of FCUIII unit in order to endure extreme environmental conditions (heat/cold, vibration, noise, dust)

Video solution:

Analog video (3 s-video), Digital video over LVDS (EIA/TIA-644), Camera link, DVI-D, Analog video output and LVDS output

Power solution:

Safety critical functionalities, Input power range -16-100 VDC, Output power to 100A on 24V

Processing solution:

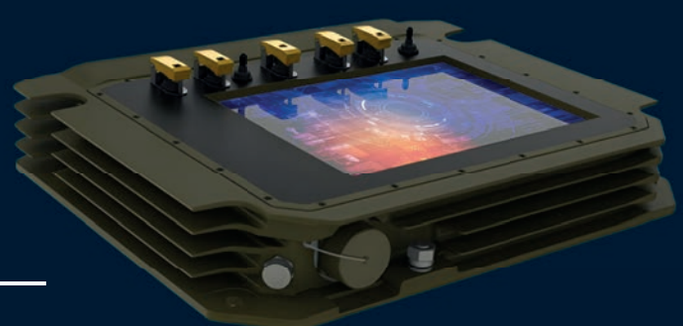
Main Processor: ETX 1.0 GHz ULV Celeron M CPU, IO processor: Altera CYCLONE II FPGA 33K, Video processors: Altera STRATIX II FPGA 130K and TI 1GHz TMS320C6454BZTZA,

Power supply: Atmel ATmega164P, Front panel: Atmel ARM AT91SAM7X128

Client Value

Client was able to upgrade their RWS station to next-gen requirements
Allows customers to operate with more safety, accuracy and efficiency in the battlefield.

FCUIII delivered according to MIL-STD 810-F, MIL-STD 1275 standard, with technical solutions/capabilities to meet current and future battlefield demands



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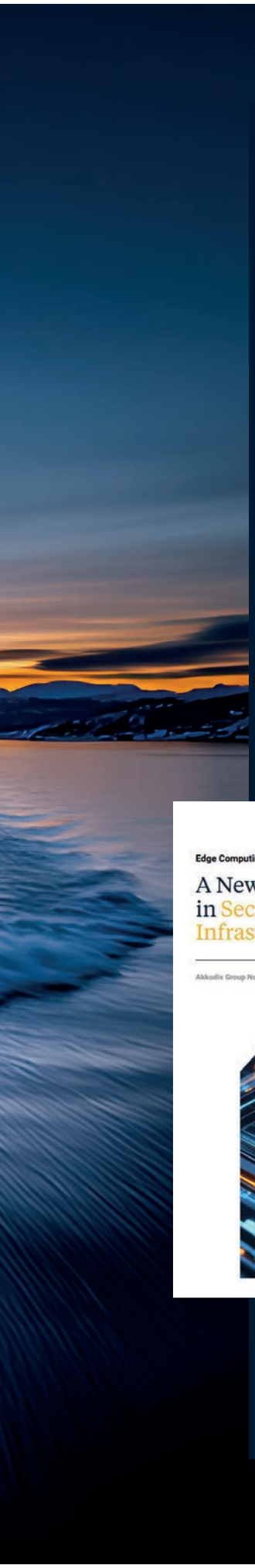
Cybersecurity is not optional — it’s mission-critical for resilience in modern defense operations.



Protect your critical Systems & Devices from Cyberattacks

Systems and devices that no longer meet new industry standards poses a real cybersecurity risk. Proactively addressing cybersecurity risks can significantly reduce vulnerability to attacks.

Explore More

https://tech.akkodis.com/edge-computing

A New Frontier in Securing Critical Infrastructure

Strengthen your cybersecurity, optimize your operations, and future-proof your infrastructure with our tailored solutions for edge computing.

Download the whitepaper now

About Akkodis
[Nordics]

Akkodis Nordics, operates as a specialized tech cluster, combining expertise in three specialist areas: Digital Engineering, Edge Technology and Business Solutions. With dedicated business units, Akkodis Nordics focuses on delivering cutting-edge and sustainable product development across industries. Akkodis Nordics is evolving into a full-stack technology partner, offering end-to-end solutions by seamlessly integrating expertise in embedded software, R&D services, AI and machine learning, hardware engineering, and edge technology.

880+
Specialists

11
Locations

3
Specialist Areas

5 **LOCATIONS NORWAY**

2 **LOCATIONS DENMARK**

2 **LOCATIONS GERMANY**

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6 LOCATIONS SWEDEN

1 LOCATION TAIWAN

Engineering a Smarter Future Together.

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https://www.akkodis.com/en/portfolio/edge

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