



SPS NÜRNBERG 2024

Make It or Break It: OT Cybersecurity – Foundation of Digital Transformation

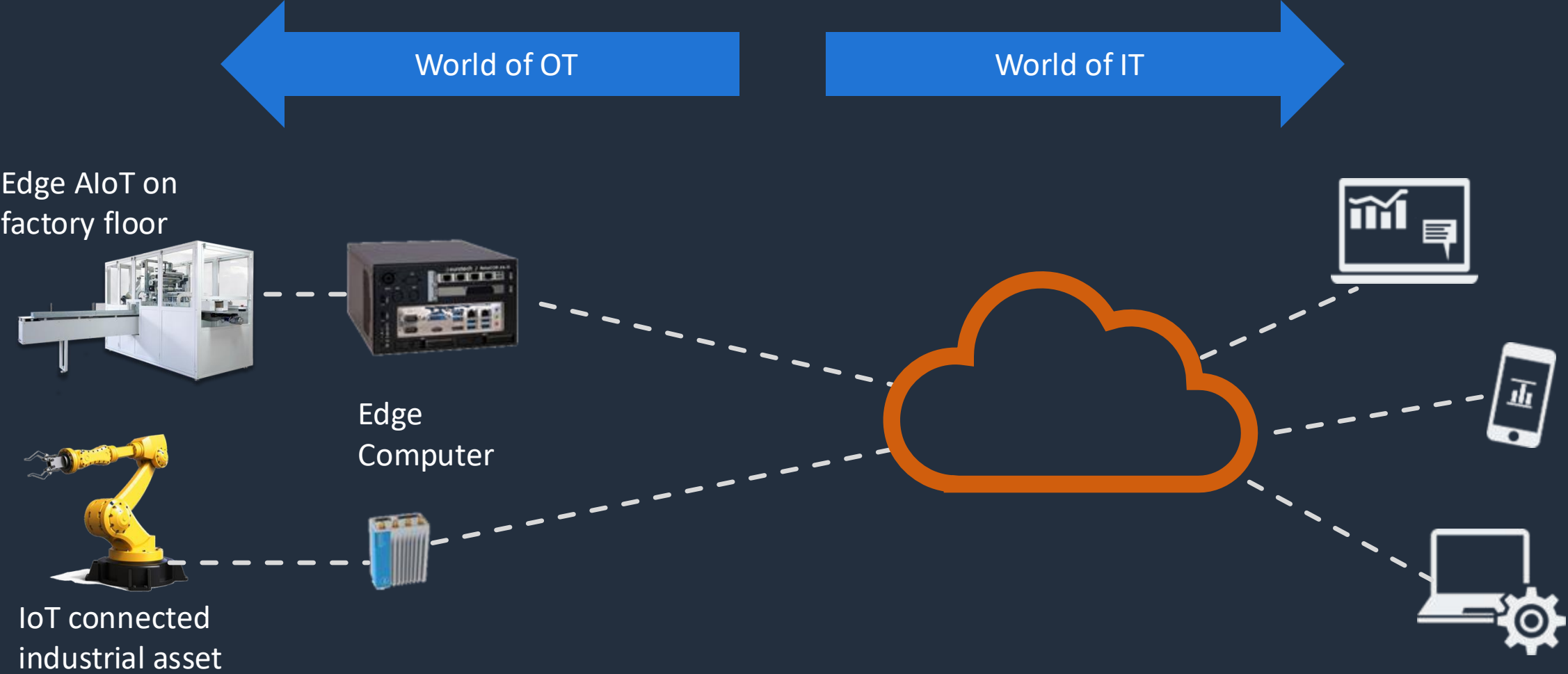
Dr. Christopher Henkel

Senior Solutions Architect, AWS

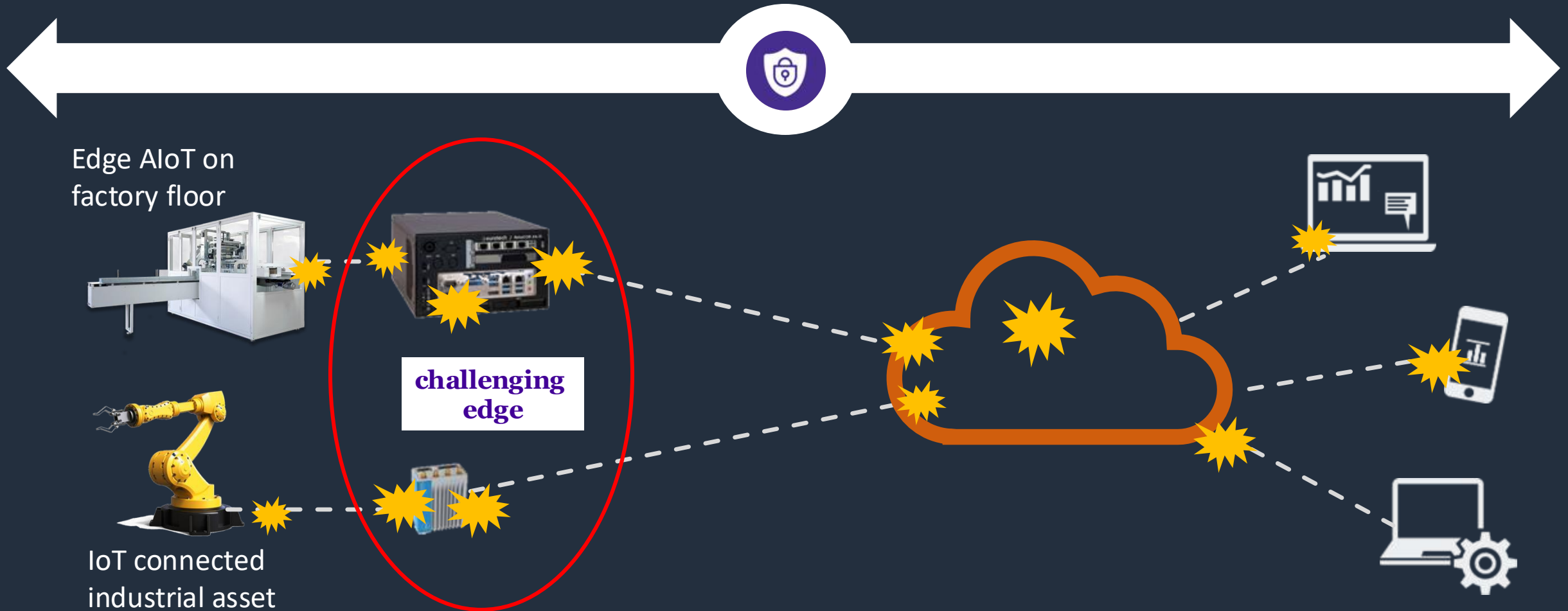
Robert Andres

Chief Strategy Officer, Eurotech

Digital Transformation and the World of OT



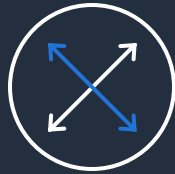
Security approach has to be a holistic / end-to-end



Some security challenges in OT



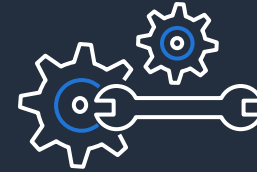
General lack of
cyber risk
mitigation



Inflexible change
control procedures



Inconsistent
endpoint visibility



Security update
challenges



Insecure legacy
industrial protocols

Safety and Availability

A fast track to NIS2 compliance at the industrial edge

NIS2 enforces **Operational Resilience** and assigns the **responsibility to OT end user**



of countries
affected:

27

EU member states

amount of fines:

10 € million



or up to 2% of the total worldwide
turnover of an entity for non-
compliance

46



articles in the
NIS2 directive

deadline for
transposition
into national
law



OCTOBER 17, **2024**

*IEC 62443 cybersecurity
framework helps
companies comply to NIS2
requirements*



support for
monitoring
and updates



support for
purchasing
compliance



encrypted
communication
and storage



data integrity,
availability &
optimized time
to recovery



automated
security
reports



incident
prevention,
faster
recovery,
emergency
remote
procedures



identity theft
prevention

Stay secure while moving fast



Security by
Design



Defense in
Depth



Security
Standards



Zero Trust

Zero Trust Core Principles *“Never trust, always verify”*



Verify and Authenticate



Authorization



Least Privilege Access
Control



Continuous audit and
monitoring



Micro-segmentation



Automation &
Orchestration

Secure by Design

1. Design for security from the start
2. Start with a cyber security risk assessment
3. Build security features into products and solutions
4. Implement security throughout a product's life-cycle
5. Use secure configurations by default

... leverage security standards / frameworks to get there ...

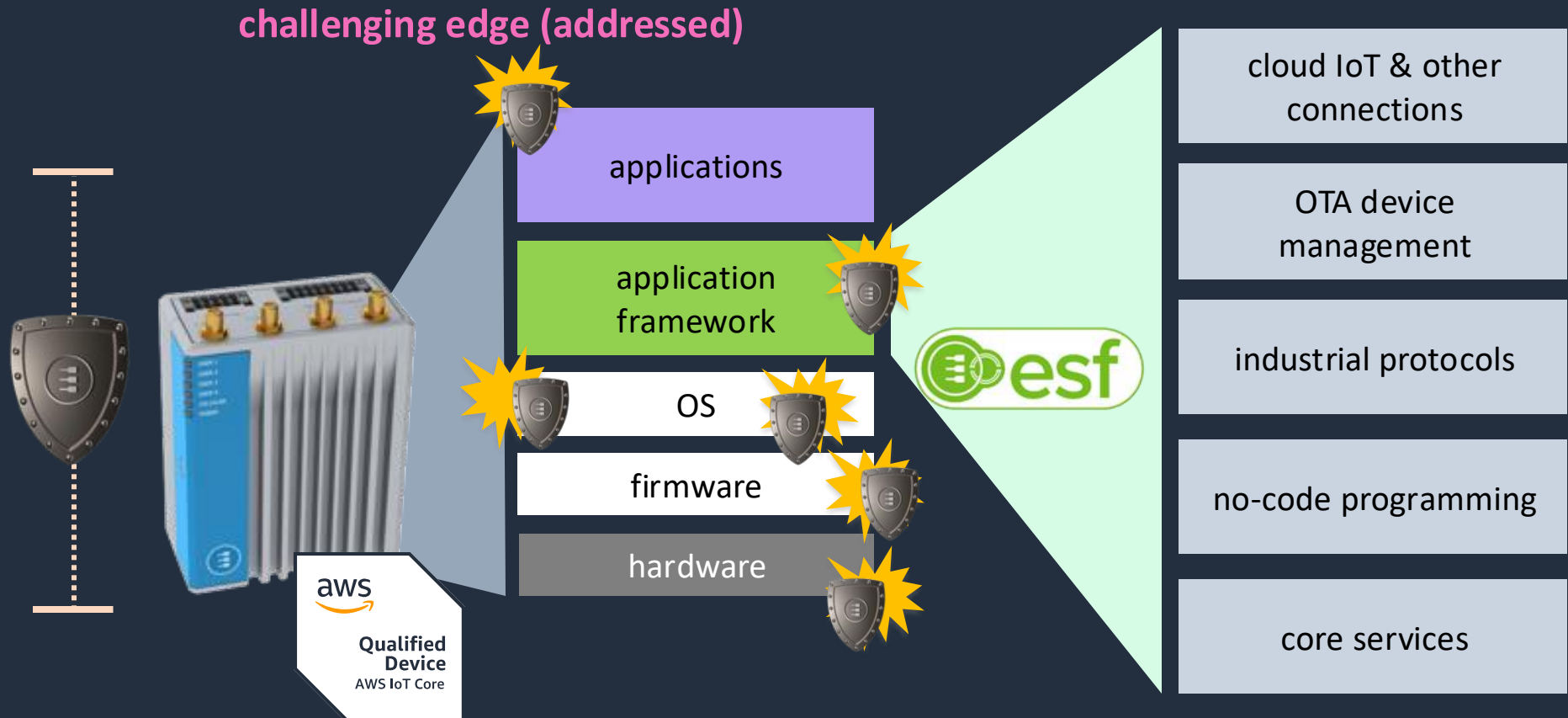


Certified cybersecurity approach using standards

Significantly Reduce Cost, Risk, Time, & Effort by “inheriting” product certification

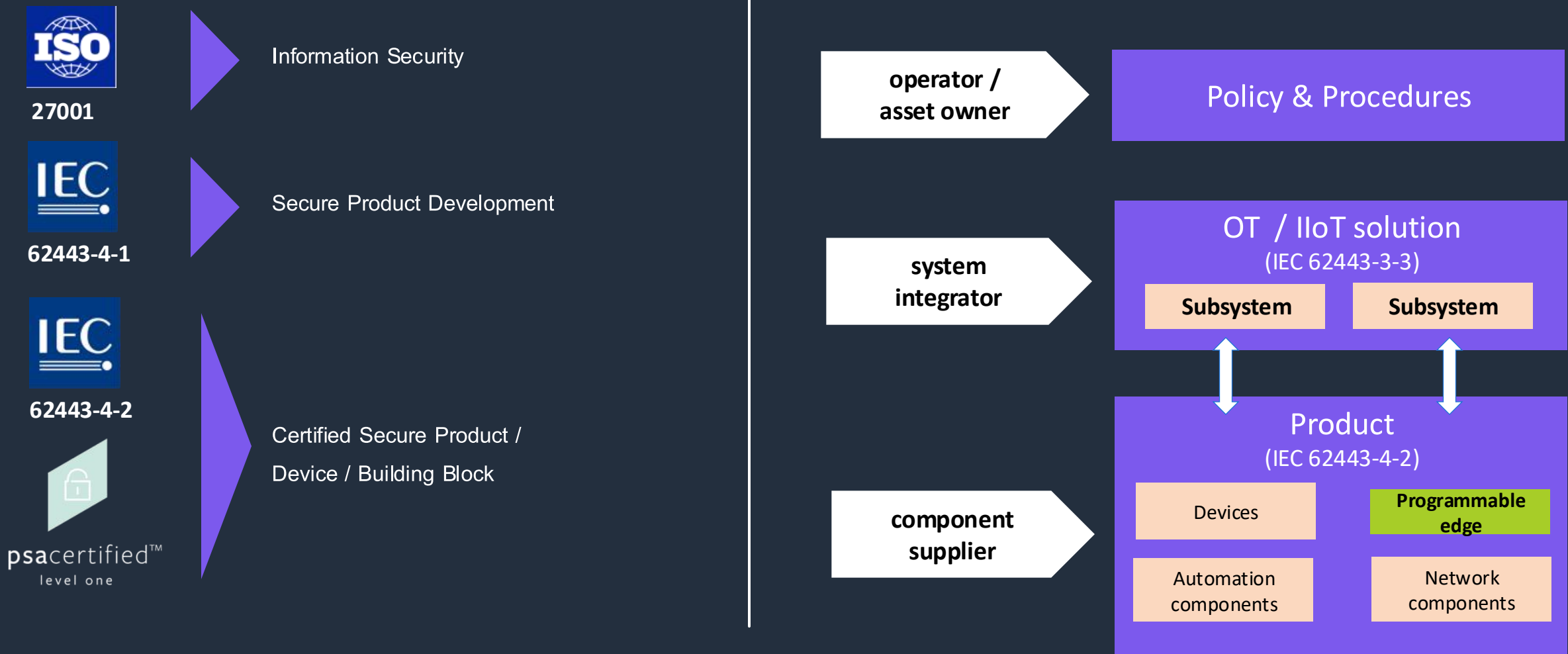
**complete stack
optimized &
security certified**

IEC 62443-4-2
PSA Level 1



Security standards as fast track to compliance

Holistic security requires holistic security standards – the “popular” choice for OT: IEC 62443



Security standards– some elements / aspects

PSA Level 1, IEC 62443-4-2

Secure Management

Secure audit and **secure over-the-air updates** for all components of the software on the device. **Secure provisioning** of device credentials and **certificate management**

System Integrity and Trusted Execution

Create a trusted execution environment by **verifying software authenticity and integrity**. **File system integrity, Firewall, DDoS protection, IPS/IDS, malware protection, etc.**

Device Attestation and Protected Data

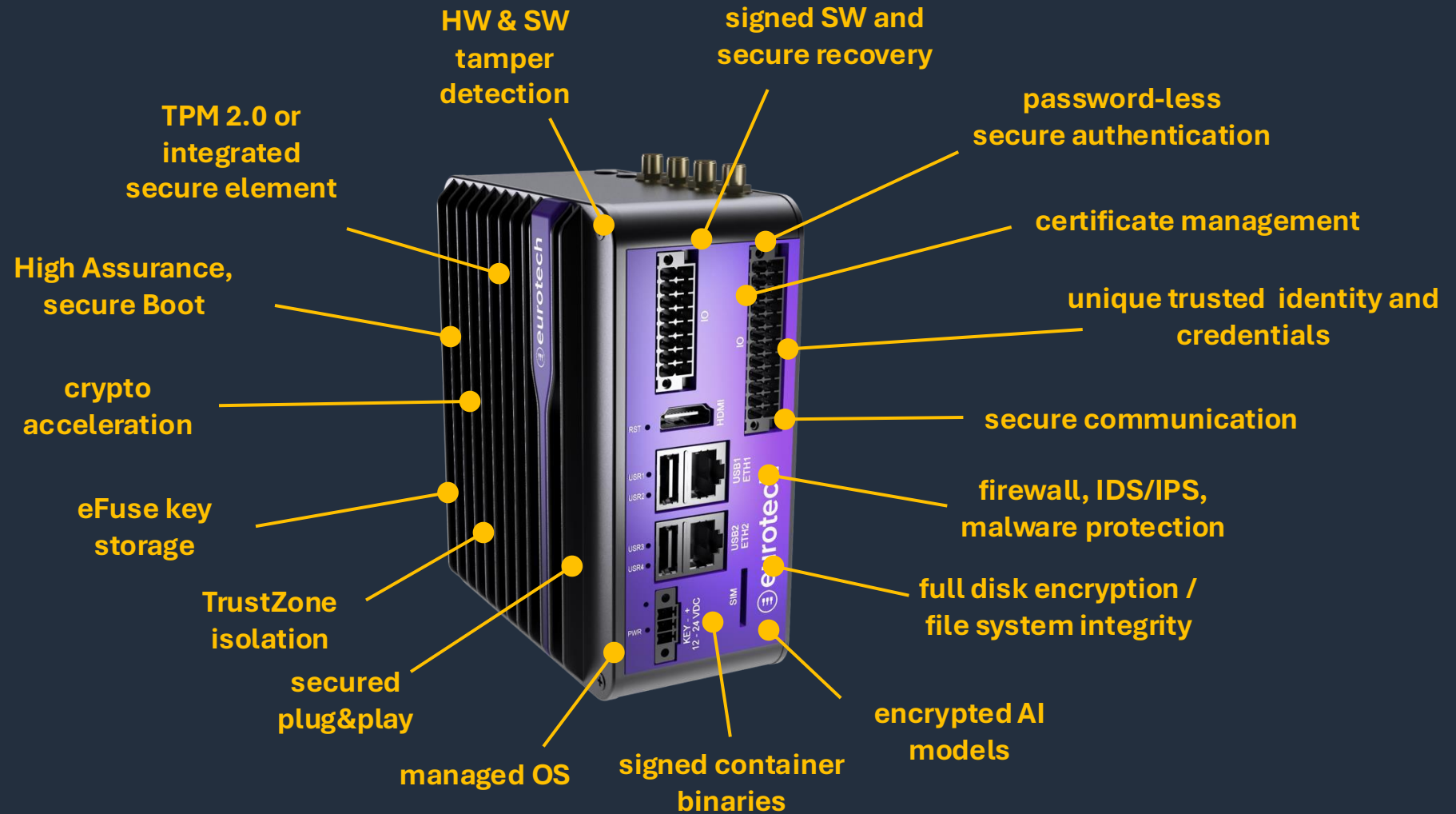
Device Identity anchored to the hardware for secure attestation. **Protected repository** for sensitive data and keys at rest.

Platform Integrity

Secure and measured **boot** process with hardware attestation of the boot loader and OS kernel. **Anti-tampering**.

Security by Design example – the edge device

security from the ground up – HW and SW co-designed with a detailed threat model in mind



Integrated hardware & software

Proven cybersecurity by design

First IoT Gateway IEC
62443-4-2 SC-L2



First Edge AI
IEC 62443-4-2 SC-L2



cybersecurity

BY DESIGN.
CERTIFIED.



all Eurotech industrial edge devices are designed to meet IEC 62443-4-2 requirements

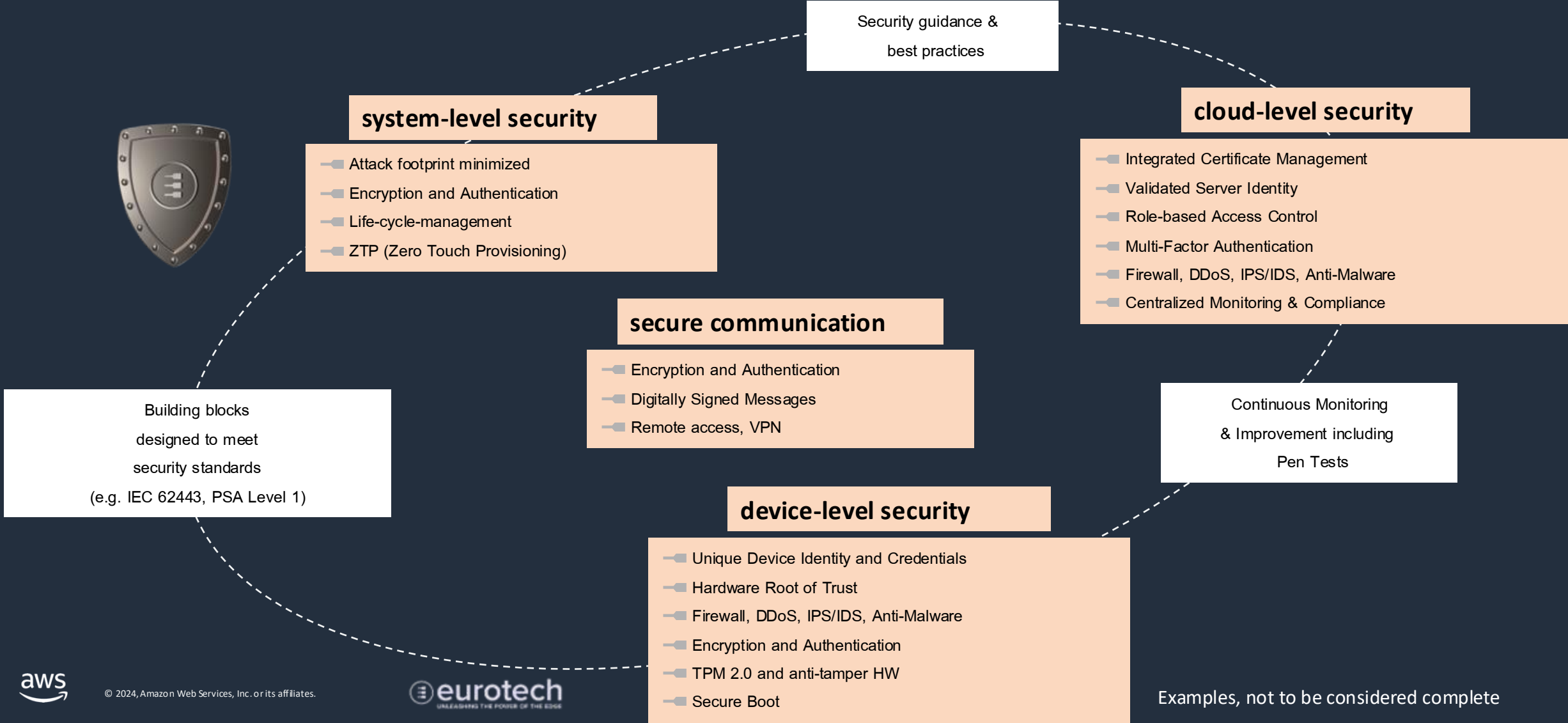


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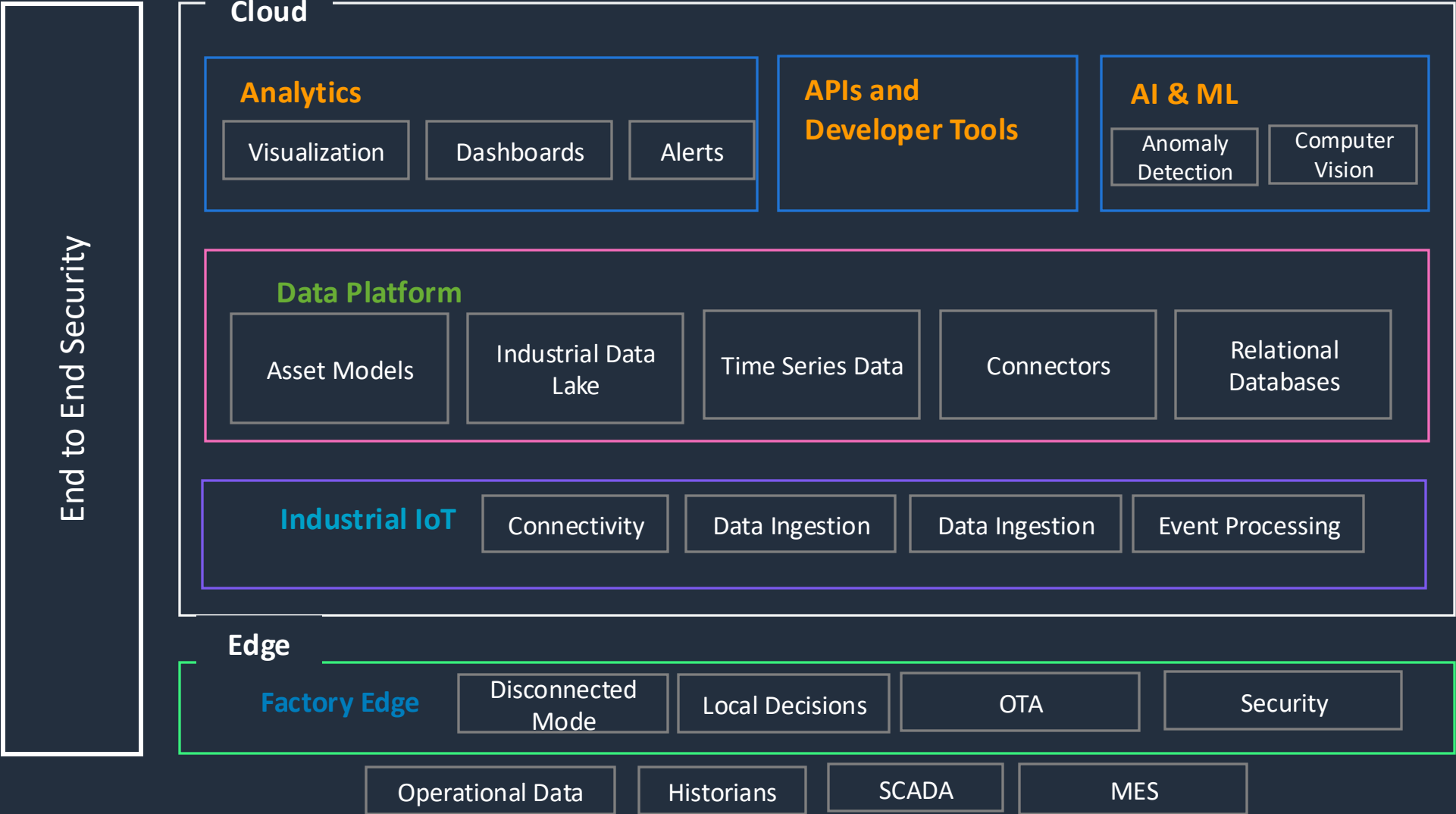


Defense in Depth

Implement multiple security layers throughout the solution

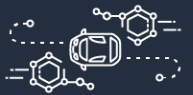


End-to-end capabilities for industrial digital transformation



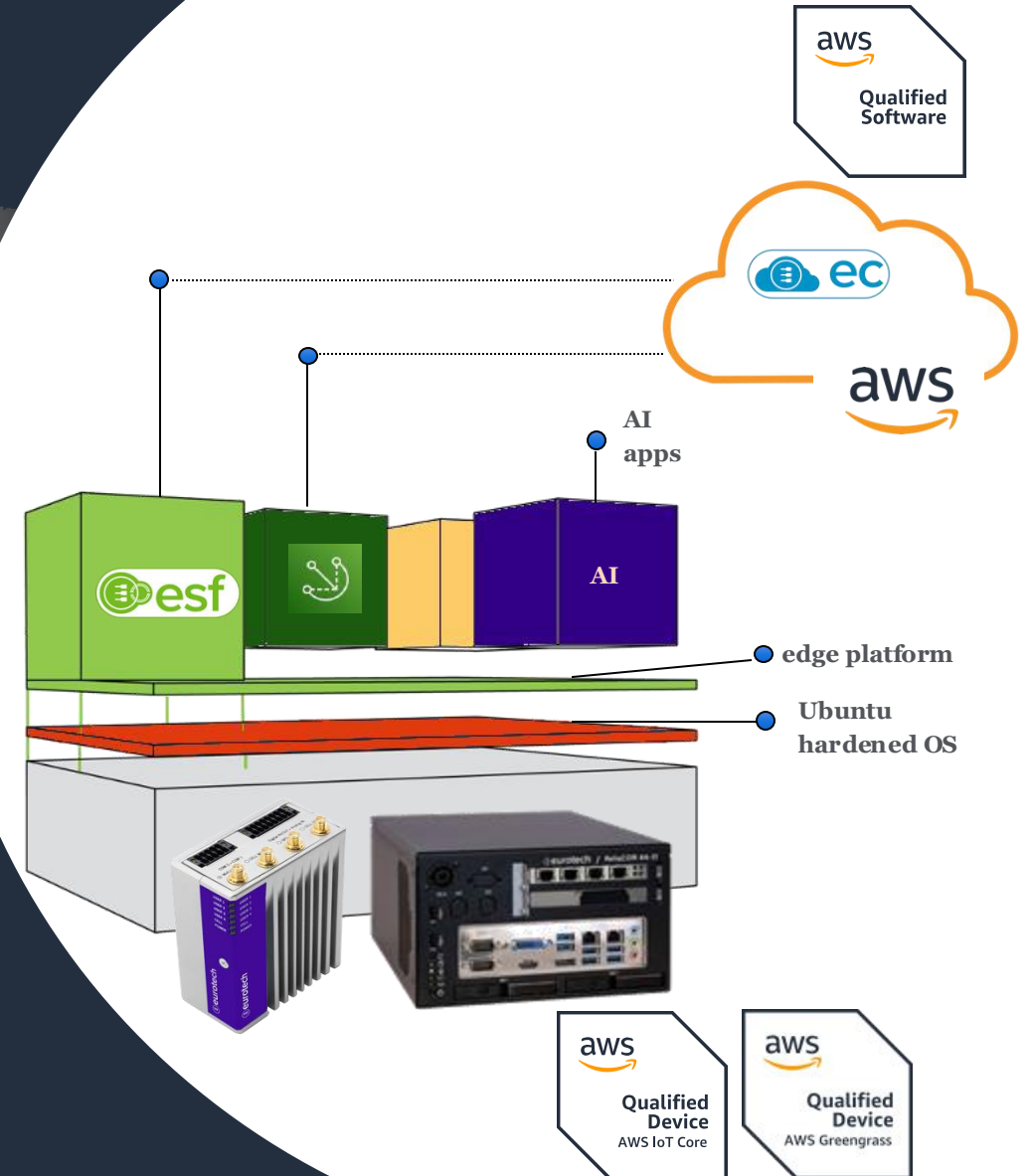
Keys to secure digital transformation

1. Design for security from the start
2. Follow zero trust security principles
3. Leverage security standards such as ISA/IEC 62443
4. Implement defense in depth
5. Keep continuously improving





Visit the Eurotech booth
Hall 5, Booth #245



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Thank you!

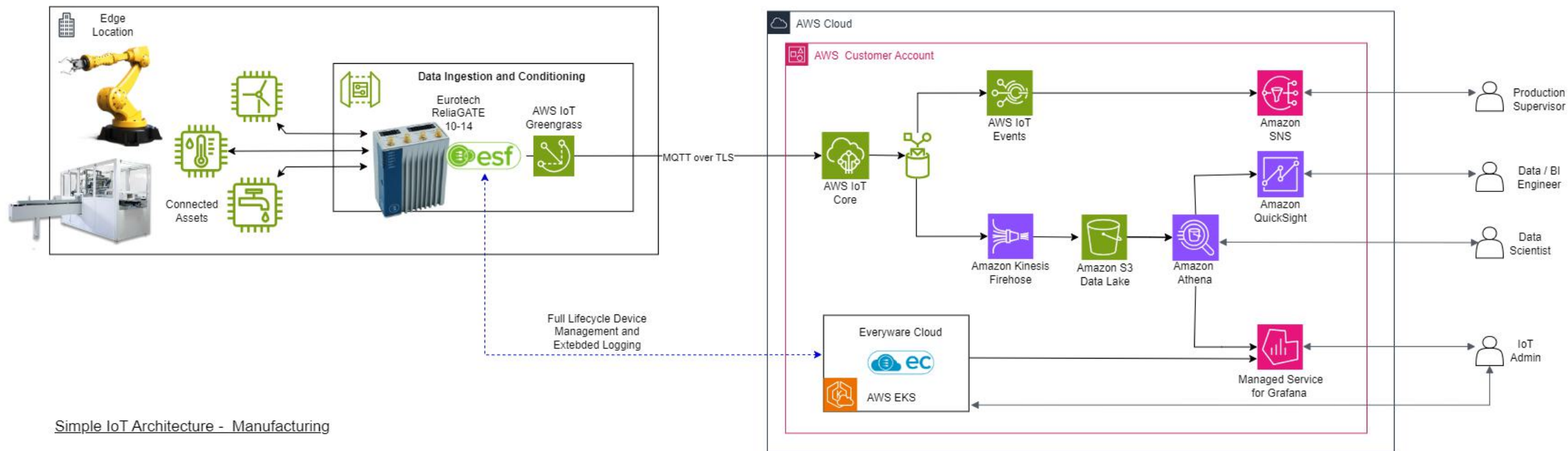
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Digital Transformation requires a connected and secure World of OT



Eurotech and AWS collaboration

Helping companies accelerate secure industrial digital transformation

1. Bringing OT, edge and cloud capabilities together with integrations which accelerate time to value for customers

- AWS IoT Core
- AWS IoT Greengrass
- AWS IoT SiteWise

2. Eurotech Everyware GreenEdge

- AWS IoT Greengrass pre-installed
- Zero-Touch-Provisioning
- Industrial and energy field protocol packs
- Device Management
- Unified Billing through AWS



One bundled service
offering through
AWS Marketplace



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