PHYSEC
SECURITY FOR THINGS

## RZ Ecosystem Partner Solution

# PHYSEC SEAL®

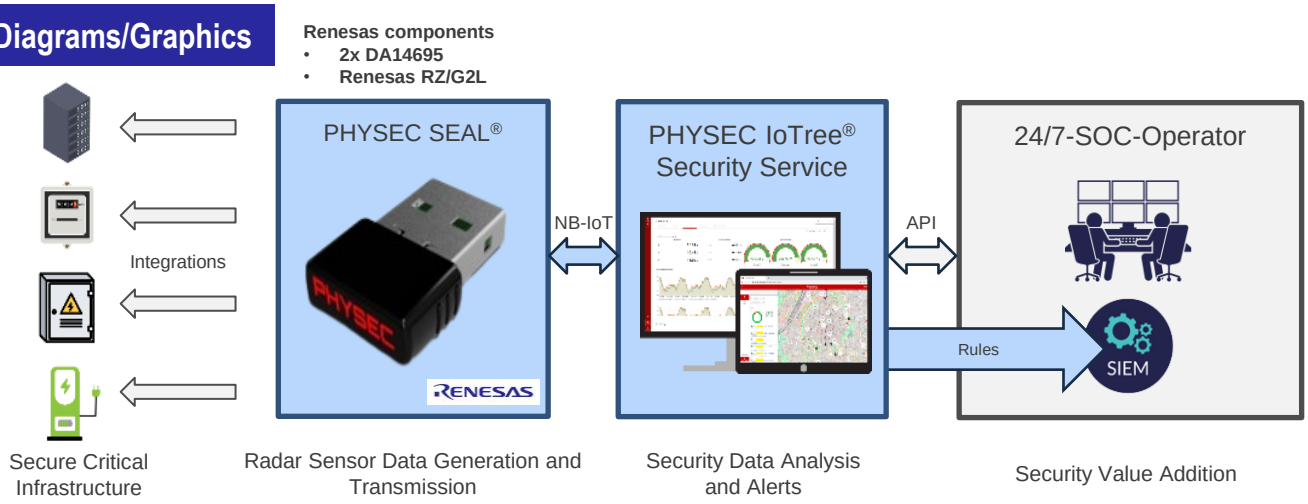
## Solution Summary

PHYSEC SEAL® is a Monitoring as a Service (MaaS) solution that sets the gold standard for cyber and physical security convergence. It is a holistic security solution for systems at a significant risk of cyber-physical attacks such as tampering, sabotage, and vandalism. PHYSEC SEAL® is ideal for securing critical infrastructure assets which operate in offsite and unsecure environments. It helps businesses save money by replacing manual inspections with remote security inspections via the PHYSEC IoTree® platform. The solution works out-of-the-box with the Renesas RZ/G2L.

## Features/Benefits

- Scalable miniaturized radar captures 3D fingerprint of assets 24/7
- Fingerprints are securely communicated, stored, and used for anomaly detection
- Ensure compliance with regulations, e.g., NIS2 and CRE/CER directive in a cost-effective manner
- Bundesamt fur Sicherheit in der Informationstechnik (BSI) compliant Transport Layer Security (TLS) encrypted communication ensures all-round security
- Simple integration with external Security Information and Event Management (SIEM) and Security Operating Center (SOC) operators

## Diagrams/Graphics




## Target Markets and Applications

- Markets
  - Critical infrastructure (KRITIS)
  - IT and telecommunication
  - Building technology
  - Monitoring and surveillance
  - Hardware equipment vendors (OEMs)
  - Security service providers
- Applications
  - Physical security and monitoring
  - Regulatory compliance, e.g., ISO 27001, KRITIS DachG
  - Digital twinning
  - Predictive maintenance

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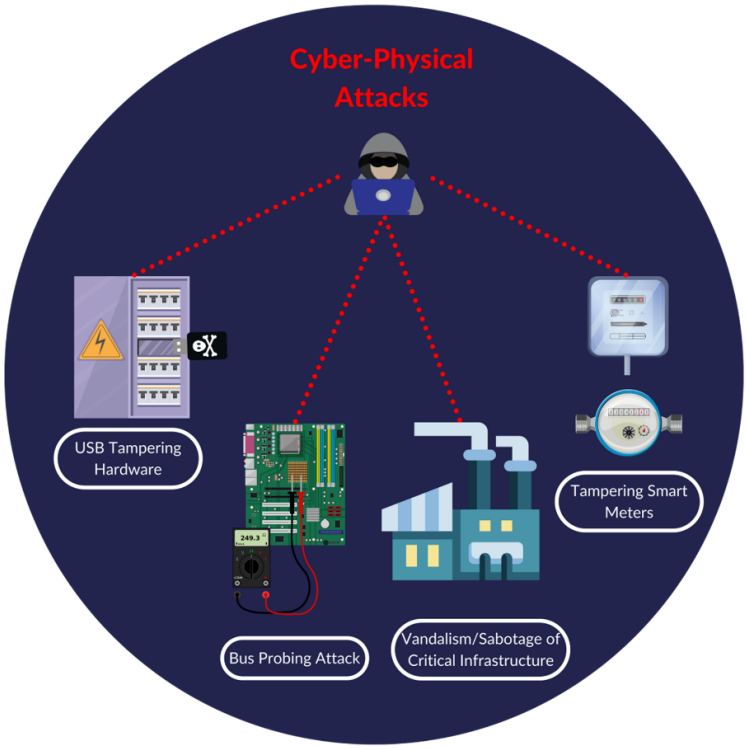


### Advantages

- ISMS & CER compliance in unprotected environments
- Real-time audit of devices and assets
- Status monitoring of complex systems
- IoT connectivity for critical infrastructures
- E2E encryption according to BSI-TR and ENISA

### Use Cases

- EV charging station
- Water pressure boosting station
- Electricity distribution cabinet
- Electricity substation
- Mobile base station
- Data center and server rack
- ATM machines
- OT assets in general

## Why does PHYSEC SEAL® exist?

Because cyber-physical attacks are a rising security threat. As far as data security is concerned, there is an even greater danger than remote cyberattacks: namely tampering with hardware that can be used to read out information – such as VPN data from a gateway or company data from a 5G-edge server. Critical infrastructure, such as 5G/6G-infrastructure, smart metering systems and utility supply chains have a serious limitation. They are susceptible to physical tampering. Physical attacks on the US power grid rose by 71% in 2022 compared to 2021 leading to power outages and suspension of critical services, in addition to millions of dollars in losses. Global security experts predict a 300% increase in cyberattacks by 2025, mainly targeting critical infrastructure devices.

PHYSEC SEAL® can implement and fulfill the newly imposed challenges for critical infrastructure security and ISMS operation by providing an applicable monitoring system with management of security information, without processing Personally Identifiable Information (PII). Obstacles and inhibitions due to data protection risks are thus prevented.

## Who can use PHYSEC SEAL®?

Asset managers, security officers, responsible persons for NIS2, ISMS/ISO27001:2022, and CRE/CER, and everyone who is responsible for the management, planning, installation, maintenance, or protection of edge devices, Operational Technology (OT) devices, Industrial Internet of Things (IIoT) devices, (edge-)servers, or other assets that are operated in public and shared environments. Operators interested in OT security for critical infrastructures will benefit greatly by leveraging PHYSEC SEAL®.

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