



With the IoT Gateway Protected Edge, Bosch Rexroth offers a scalable IoT component for networking both new and existing machines. This is based on the compact, cost-efficient BOX PC PR21 developed by Bosch Rexroth specifically for Ethernet-based communication.

The powerful IoT Gateway software combines reliable hardware with intelligent functions such as (I)IoT data acquisition, data processing and Defense-In-Depth for industrial control systems.

### 360° cyber security in industrial systems

The foundation of the cyber security functions is provided by an integrated firewall and VPN support for secure encrypted remote access. An integrated device portal also enables digital management of all IoT devices throughout their entire lifecycle as well as decentralized patch management.

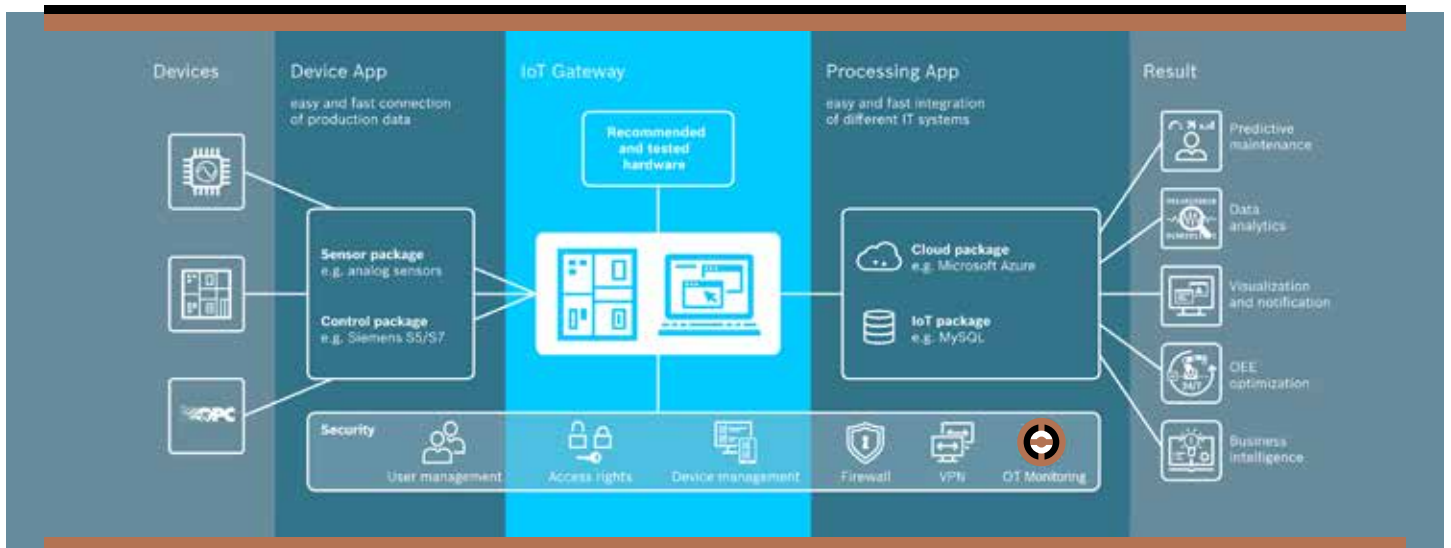
With the integration of the Rhebo Industrial Protector sensor software, Bosch Rexroth is extending this basic foundation for secure control systems to Defense-In-Depth. Rhebo Industrial Protector monitors all communication processes and analyzes them at content level. Unknown or changed communication processes are reported in real-time as an anomaly and stored with all details in the backlog. The analysis and reporting is passive and completely non-intrusive. While the firewall blocks known threats, Rhebo Industrial Protector reports new (read: unknown) threats or changed setups in real-time that endanger production or supply. The anomalies identified can then be used to update the firewall or VPN support to actively prevent certain communication patterns.

### Increasing plant availability

The IoT Gateway software with integrated anomaly detection from Rhebo also provides control engineers with complete transparency over their plants and processes. With real-time monitoring of process data such as temperature, pressure and vibration, etc., data is centrally made available for the optimization of the industrial processes as well as predictive maintenance. This ensures consistently high quality, availability and efficiency both in automated production processes and in critical infrastructures.

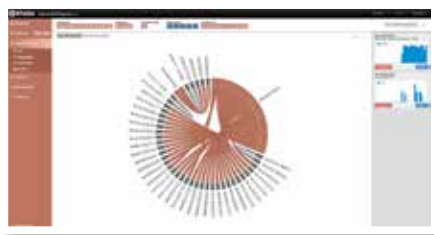
With the IoT Gateway software in combination with Rhebo Industrial Protector, operators of automated production lines and critical infrastructures gain a complete insight into their industrial control systems at all times. They can react immediately to threats before plant operation is impaired.

The data processing can be executed flexibly on site directly at the machine or via the secure Bosch IoT Cloud.



## Profit from the combined power of Rhebo and Bosch Rexroth

- ✓ High-performance hardware and IoT platform by Bosch Rexroth combined with network transparency and defense-in-depth by Rhebo
- ✓ Monitoring and anomaly detection for industrial control systems with Rhebo Industrial Protector
- ✓ Real-time detection and reporting of attacks, vulnerabilities and potential threats
- ✓ Improvement and securing of system availability and productivity through early detection of technical error states
- ✓ Increased actionability through integrated risk assessment and forensic data logging.
- ✓ Cost savings through integration of applications for remote maintenance, condition monitoring and security monitoring in ICS



## Two strong partners for industrial digitalization



**Rhebo** is a German company that specializes in the reliability and resilience of industrial and critical infrastructure companies. With its solutions and services, Rhebo monitors all data communication within industrial control systems (ICS), and reliably reports attacks, vulnerabilities as well as technical error states. Thus, Rhebo supports operators of ICS to increase cyber security, productivity and availability of their systems and plants, and to safeguard the digital transformation of their processes. In this role, the company is actively involved in the Alliance for Cyber Security of the Federal Office for Information Security (BSI), the Teletrust – Bundesverband IT-Sicherheit e.V. and the Bitkom Security Management Working Group to develop standards and technical guidance.

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**Bosch Rexroth** As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile Applications, Machinery Applications and Engineering, and Factory Automation. With its intelligent components, customized system solutions and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, more than 30,500 associates generated sales revenue of 5.5 billion euros in 2017.

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