



Cloud Edge Gateway GS.Gate

High Security Digital Solution for Industry 4.0

Valuable information can be gained from data about the performance and condition of machines. For example, when do parts subject to wear and tear have to be replaced before they cause expensive downtime – aka predictive maintenance? How high is the utilization of machines, and which processes require optimization?

With this information, you can continually increase efficiency and productivity, reduce costs and

keep up with intensive competition. To access the information, you have to network your machines and analyze the data collected. However, it is extremely important that under no circumstances digitalization may become a risk to your IT security by opening a door to cyber attacks on your sensitive production areas. You are risking expensive breakdowns and loss of production and data, and thereby your competitive advantage. It is exactly this requirement – providing maximum security during the

collection, processing and provision of machine data – that motivated Schubert System Elektronik and genua to develop the Cloud Edge Gateway GS.Gate.

Compact Solution with Analysis Applications and Security Systems

The GS.Gate can be connected to any machine (independent of the manufacturer) and provides two separate compartments running in a single compact industrial case:

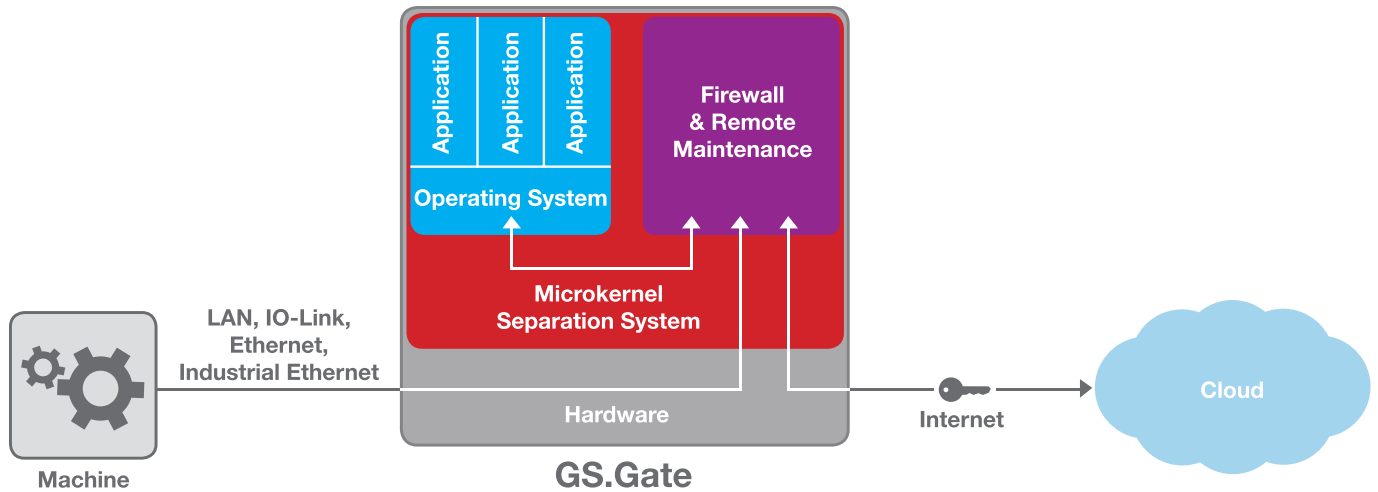
Compartment one lets you – as the manufacturer or maintainer – install your own custom application using Docker. This application then retrieves status and performance data from the machine via common interfaces such as LAN, IO Link, Gbit Ethernet or Industrial Ethernet, and carries out the required analysis. Thus, important information required for comprehensive industrial analytics already is filtered from the collected data at this stage.

Compartment two contains a firewall and the remote access components for secure remote maintenance access. The filtered information is securely encrypted and transferred via the firewall over the Internet to your analytics systems or cloud. At the same time, the firewall reliably protects the cloud edge gateway and thereby your networked machines from cyber attacks.

The GS.Gate at a Glance:

- Collection, analysis and secure transfer of machine data
- Installation of customized data processing applications
- Reliable protection for networked machines
- Top quality security through “Security by Design”
- Simple, manufacturer-independent connection to machines
- Maintenance-free industrial hardware
- Best of Breed solution, Made in Germany
- Customer service directly from the manufacturer





Security by Design Guarantees Top Quality Protection

The GS.Gate has been developed following the “Security by Design” principle to provide a high level of protection to the critical interface between the machine and external networks. The data processing applications that communicate with the machine are strictly separated from the security systems that protect communication and the interface to external networks. The separate compartments each have their own operating system and permanently allocated hardware resources – there is no overlap. This is possible by using a microkernel operating system that runs on the GS.Gate and creates the strictly separated compartments.

The advantage: Only the specially hardened security systems are exposed to the external network. These are kept secure with regular updates and are therefore protected against the latest threats. The data analysis applications can be safely used behind this protective shield without constant interruptions by updates and patches. Thus, changes or disruptions of carefully tuned procedures can be avoided. The GS.Gate therefore guarantees problem-free operation on a security level that sets a new standard in the industrial sector.

Comprehensive Customer Service

The Cloud Edge Gateway GS.Gate is administered and maintained via remote access using encrypted connections. Support for this remote maintenance solution is available directly from the manufacturers. If required, we will handle the entire system management. Our support specialists would then regularly monitor your installation and take care of all administration tasks. We provide highly competent hotline support, as well as a regular update service. We also would be pleased to put together a customized support package to provide an optimal solution for your needs.

Joint Development: Best of Breed Solution

The GS.Gate is a joint development by Schubert System Elektronik GmbH (SSE) and genua gmbh. Both companies are proven experts in their fields: SSE are industrial computer technology specialists and are part of the Gerhard Schubert GmbH company group, a leading manufacturer of packaging machines and digital industrial solutions. genua is a German IT security specialist with many years of experience in the industrial sector. Emphasizing the security of critical interfaces and remote maintenance solutions for plant and machinery as key product areas, genua has been a part of the Bundesdruckerei group since 2015. Both companies have combined their know-how and the result is the GS.Gate – a Best of Breed solution enabling the secure use of digital communication.