Technical Fact

HIMA Cybersecurity Solutions

HIMA SMART SAFETY.

Industrial Firewall

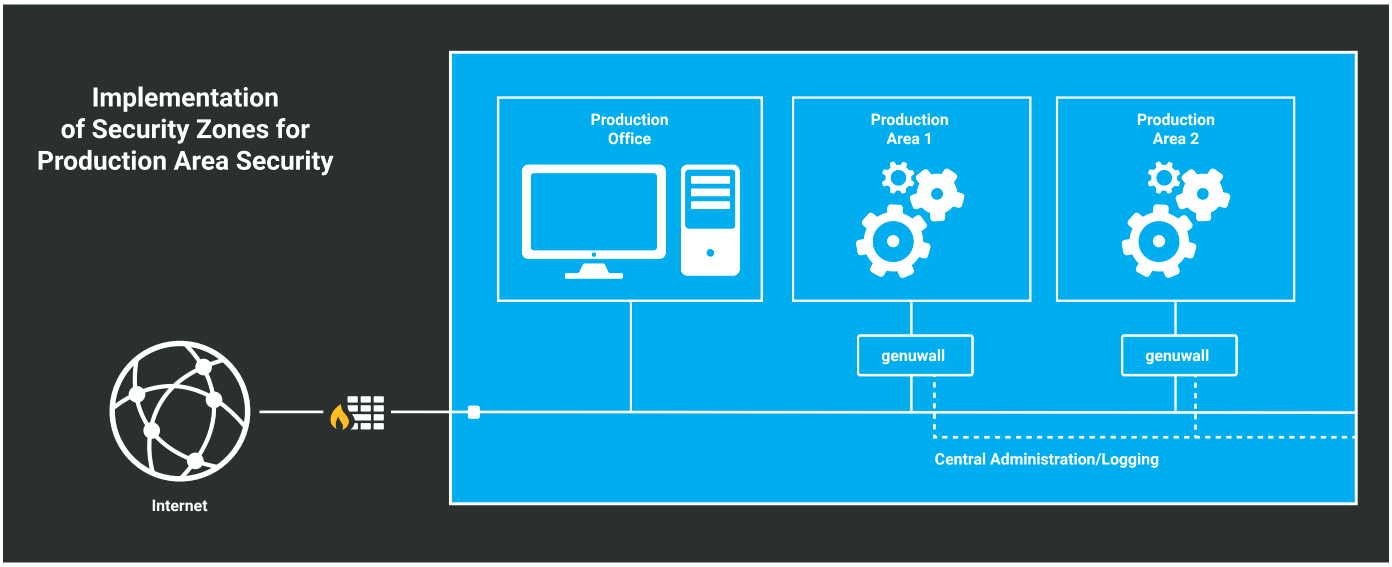
Effective protection of production networks

Protecting and strengthening production networks

Extensively networked production areas in the process industry or factory automation require superior security solutions to ensure full availability of all data at all times. 100% confidentiality and integrity must also be guaranteed. This view is shared both by HIMA and the leading industry associations. HIMA now offers its customers a competitive high-tech solution to deal with this challenge. Cyber attacks and industrial malware can spread across entire networks at any time, causing serious damage. In addition to malfunctions of your systems, cost-intensive downtimes and delivery problems, there is also the threat of a major loss of image.

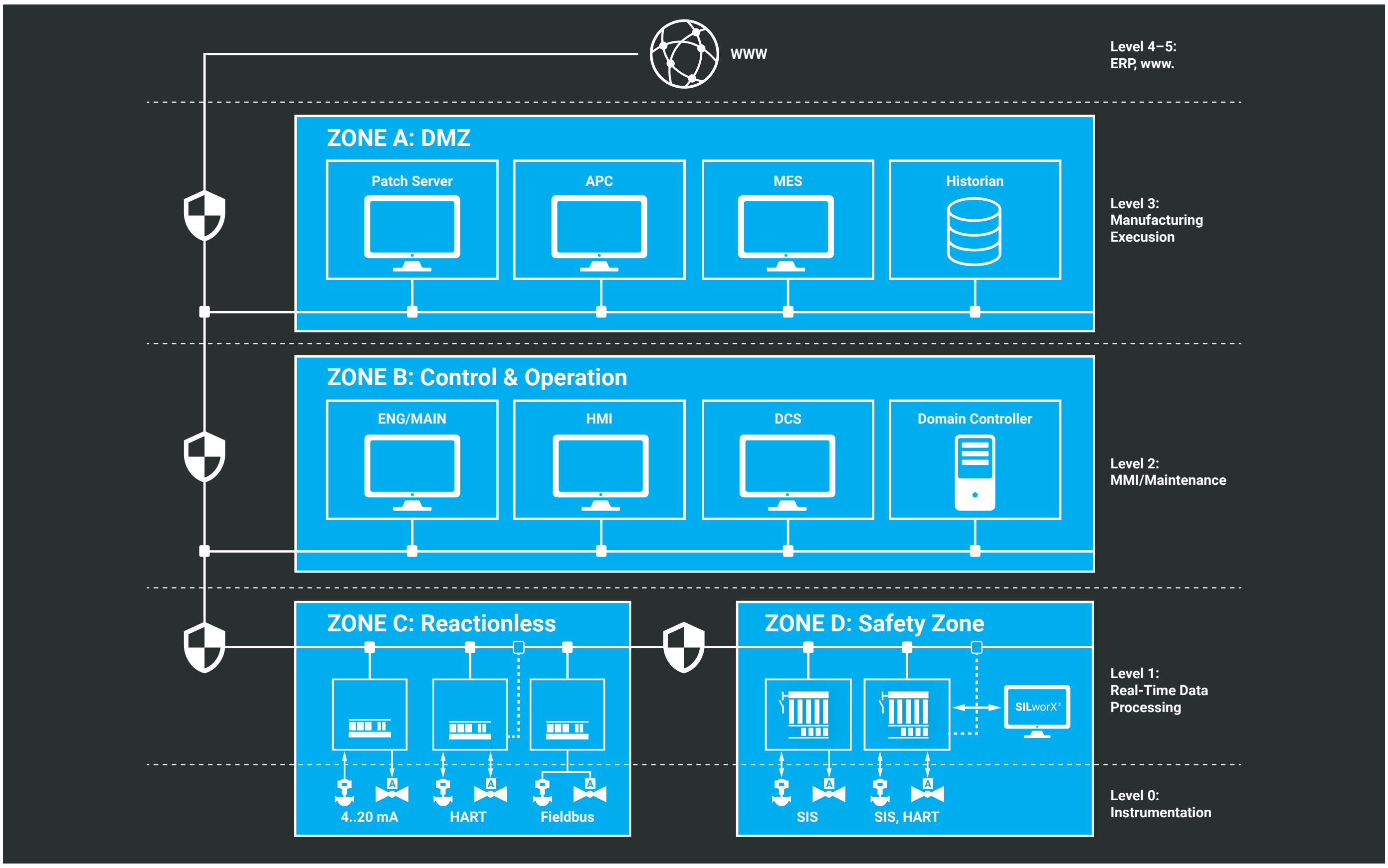
Segmentation into zones

An attacker or malicious software makes easy work of production networks with just a simple, basic security architecture. If the central firewall is breached, all components and data are at risk. Segmentation into zones can prevent the compromise of your entire production infrastructure. A gradual increase in the number of zones reduces the potential danger accordingly. Security problems can be detected easily, preventing major damage and reducing the time and costs involved. Verifiable risk prevention for your production also provides a competitive advantage in safety audits and supplier evaluations.


Implementation of Security Zones for Production Area Security
Production Office
Production Area 1
Production Area 2
genuwall
genuwall
Central Administration/Logging
Internet

Control and allow data connections

Based on the genuwall industrial firewall, the HIMA solution enables you to set up highly effective barriers against attacks in your production networks. Safety zones can be created for individual machines, entire plants or even production areas, depending on the protection requirements. The Industrial Firewall reliably controls all data traffic and only allows the desired connections. In bridging mode, for example, you can insert the firewall into your network as an invisible stealth system without changing an IP address to create internal security zones. The HIMA solution also offers various services such as DHCP, DNS and NTP for the administration of your network. Thanks to source and NAT destination, you can easily integrate identical IP address ranges into a production network and hide IP addresses from the outside world.



Possible design of zones and conduits for compliance with the IEC 62443 standard

Simple integration

The industrial firewall is installed at the network interfaces between the security zones. Appliance integration is easy and requires minimal effort. A single appliance achieves a data throughput of up to 1 Gbit/s. If higher performance is required, clusters can be used that also guarantee high availability at important interfaces. Thanks to robust industrial hardware, the HIMA solution is ideal for use in production networks.

The industrial firewall is managed via a Central Management Station or a standalone GUI. It is based on the proven genuscreen firewall, which is certified by the Federal German Office for Information Security (BSI) in the demanding EAL 4+ level according to the international Common Criteria (CC) standard. The result: a high degree of user friendliness with an even higher security level.

User-friendly administration

The Central Management Station enables the operation of large installations with many appliances, which can be distributed worldwide. This allows easy implementation of security policies, logging and bulk operation. Central distribution of patches ensures that your entire system is always up to date. This allows you to operate a uniform security infrastructure and reliably protect all network segments with very little effort.

The Central Management Station also supports solutions for system monitoring and secure remote maintenance, so you can easily expand your industrial security at any time, if required. The industrial firewall offers security made in Germany. Based on the genuwall, HIMA provides a superior security solution, which combines a high degree of user friendliness with an even higher security level.

Important benefits:

- Highly effective protection for your production network (LAN, WAN and VLAN) through security zones
- Simple setup of subnets within your network
- Ideally suited for large production infrastructures
- Support of communication and telemetry protocols such as OPC UA, Modbus/TCP and MQTT
- Highly available and scalable solution, quick and easy to integrate
- Central, simple and time-saving administration
- Industrial security made in Germany, based on a BSI-certified solution

About HIMA

The HIMA Group is the world's leading independent provider of smart safety solutions for industrial applications. With more than 35,000 installed TÜV-certified safety systems worldwide, HIMA qualifies as the technology leader in this sector. Its expert engineers develop customized solutions that help increase safety, cyber security, and profitability of plants and factories in the digital age. For over 45 years, HIMA has been a trusted partner to the world's largest oil, gas, chemical, and energy-producing companies. These rely on HIMA solutions, services and consultancy for uninterrupted plant operation and protection of assets, people, and the environment. HIMA's offering includes smart safety solutions that help increase safety and uptime by turning data into business relevant information. HIMA also provides comprehensive solutions for the efficient control and monitoring of turbomachinery (TMC), burners and boilers (BMC), and pipelines (PMC). In the global rail industry, HIMA's CENELEC-certified SIL 4 COTS safety controllers are leading the way to increased safety, security, and profitability. Founded in 1908, the family-owned company operates from over 50 locations worldwide with its headquarters in Brühl, Germany with a workforce of approximately 800 employees.
For more information please visit: *www.hima.com*

Sie möchten mehr erfahren? Kontaktieren Sie uns:

Klaus Wagner & Heiko Schween
Division Automation Security
Phone: +49 (0) 6202 709-128 / -599
E-mail: k.wagner@hima.com / h.schween@hima.com

Or visit us online:
https://www.hima.com/en/about-hima/cybersecurity

The content provided in this document is intended solely for general information purposes, and is provided with the understanding that the authors and publishers are not herein engaged in rendering engineering or other professional advice or services. Given the complexity of circumstances of each specific case and the site-specific circumstances unique to each project any use of information contained in this document should be done only in consultation with a qualified professional who can take into account all relevant factors and desired outcomes. This document has been prepared with reasonable care and attention. However, it is possible that some information in this document is incomplete, incorrect, or inapplicable to particular circumstances or conditions. Neither HIMA nor any of its affiliates, directors, officers or employees nor any other person accepts any liability whatsoever for any loss howsoever resulting from using, relying or acting upon information in this document or otherwise arising in connection with this document. Any modification of the content, duplication or reprinting of this document, as well as any distribution to third parties – even in parts – shall require the express written approval of HIMA.

HIMA SMART SAFETY.

www.hima.com