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COMPATIBLE WITH YOU

PROTECT AND CONNECT INDUSTRIAL NETWORKS!

WALL IE — Industrial Ethernet Bridge and Firewall

WALL IE – INDUSTRIAL ETHERNET BRIDGE AND FIREWALL

- Integration of machine networks into the higher-level plant network
- Bridge functionality for identical IP address ranges
- NAT: Basic NAT, NAPT, port forwarding
- Access restriction through package filters: IPV4 addresses, protocol (TCP/UDP), ports, MAC addresses (in development), Ether types (in development)
- Fast and easy configuration through responsive web interface
- Static routes to other networks
- Reporting of incidents to a Syslog server
- Industry-compatible design for installation on DIN rails

WALL IE, the Industrial Ethernet Bridge and Firewall, simply integrates your machinery network into the higher-level production network. A package filter protects the networks from unauthorized access. If identical IP address ranges are to be realized, WALL IE functions as a bridge.
The NAT operating mode serves the forwarding of the data traffic between various IPv4 networks. It enables the address translation via NAT and uses package filters for the limitation of access to the automation network located behind.
In the bridge operating mode, WALL IE acts as a layer 2 switch. In contrast with normal switches, however, package filtering is also possible in this operating mode. This means that the restriction of access to individual areas of your network can be achieved without having to use different networks for this purpose.

NAT OPERATING MODE

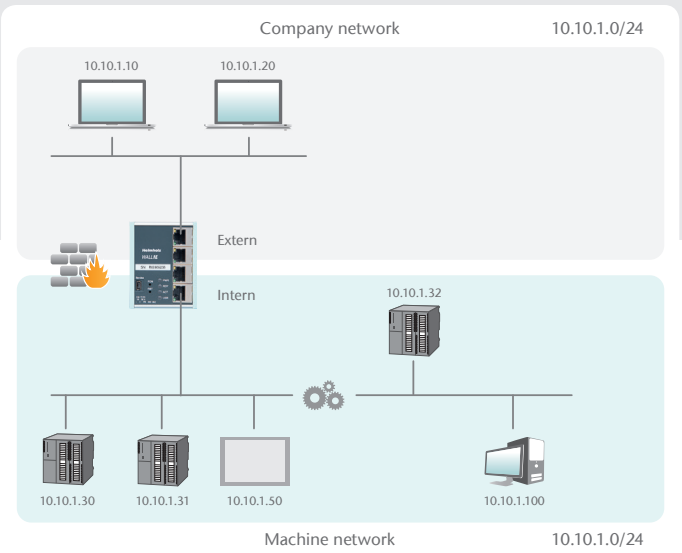
In the NAT operating mode, WALL IE forwards data traffic between various IPv4 networks (Layer 3).
Static routes are used for communication with other automation cells. To do so, the network and the address of the responsible router („Next Hop“) must be configured.

PACKAGE FILTER FUNCTIONALITY

With the package filter, access between the production network and the automation cell can be limited. For example, it can be configured that only certain participants from the production network may exchange data with defined participants from the automation cell.
The following filter criteria at layers 3 and 4 are available: IPv4 addresses, protocol (TCP/UDP), ports. The layer 2 criteria MAC addresses and Ether types are in development.

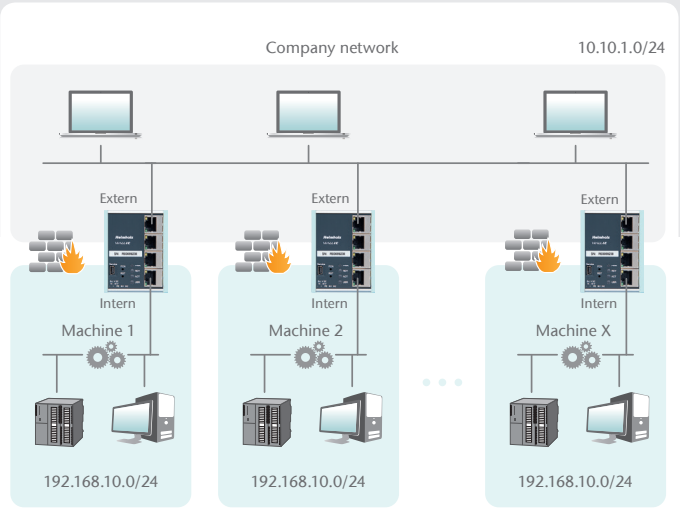
BRIDGE OPERATING MODE

In the bridge operating mode, WALL IE acts like a layer 2 switch between the automation cell and the production network. Nonetheless, the access between the two areas can be limited by the package filter. This allows the separation of a part of the production network without the use of different networks.



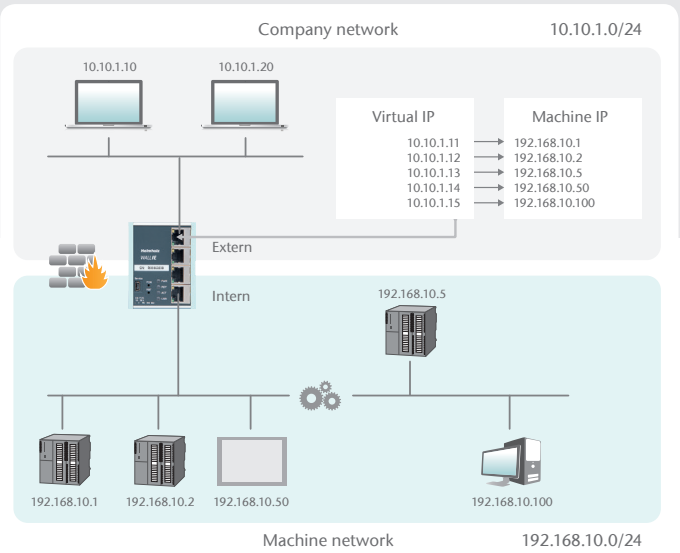
NAT FUNCTIONALITY

When several automation cells with the same address range are integrated into a production network, thus results in collisions, as the addresses in the entire network are not unique. Using Network Address Translation (NAT), WALL IE makes it possible to integrate several automation cells of the same type into the production network.



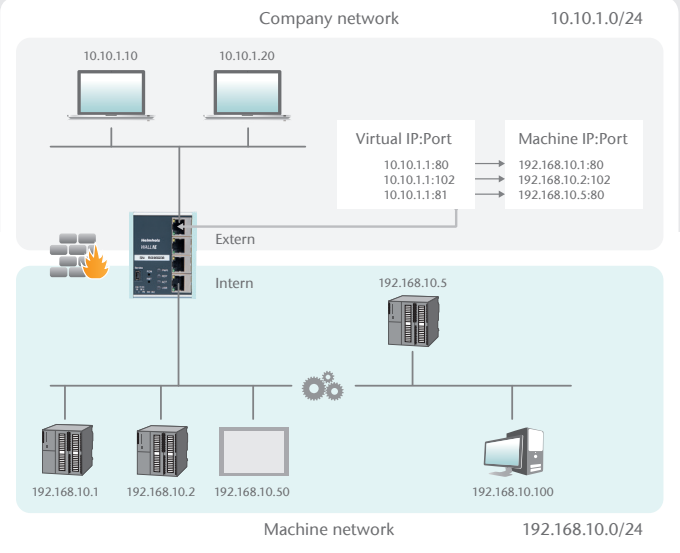
BASIC NAT

Basic NAT, also known as “1:1 NAT” or “Static NAT”, is the translation of individual IP addresses or entire address ranges. The translation takes place exclusively at the IP level, which means that all ports can be addressed without explicit forwarding.

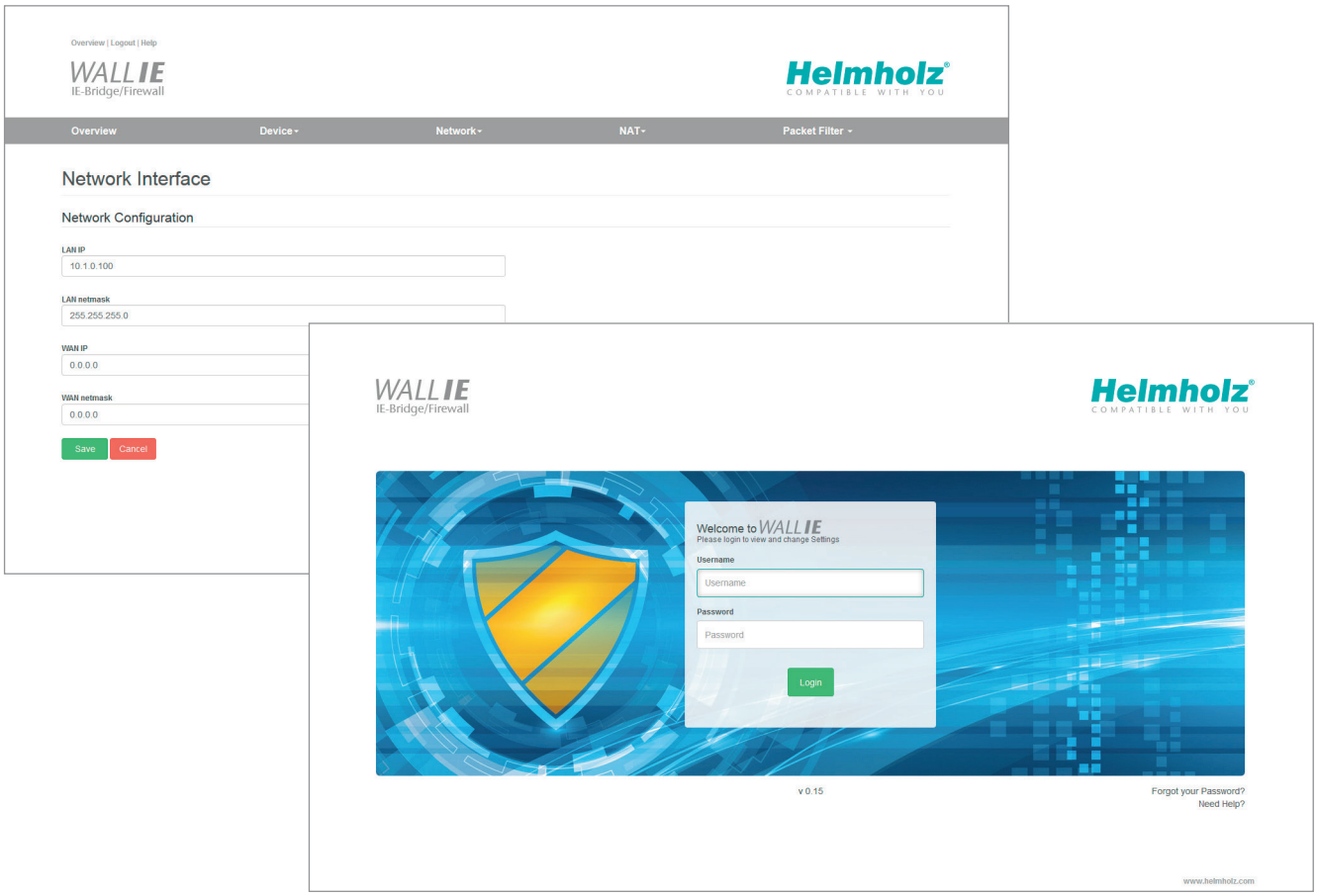


NAPT: NETWORK ADDRESS AND PORT TRANSLATION

NAPT, also known as “1:N NAT” or “Masquerading”, is the translation of all addresses of the automation cell into a single address of the production network. The sender addresses of packages from the automation cell are replaced by these.
With the help of port forwarding, it can be configured that packages are forwarded to a certain TCP/UDP port of this address to a participant in the automation cell (e.g. 10.10.1.1:8080 to 192.168.10.2:80).



WALL IE – WEBINTERFACE



TECHNICAL DATA/ORDERING DATA

WALL IE, Industrial Ethernet Bridge and Firewall (incl. Quick Start Guide)	**700-860-WAL01**
Dimensions (D x W x H)	35 x 59 x 75 mm
Weight	250 g
Number of inputs/switching point	2/DC 24 V, as per DIN EN 61131-2 Type 2
Interfaces	Four 10/100 Mbps LAN ports USB 2.0, mini USB
Operating modes	Bridge, Basic NAT, NAPT
Package filter	IPV4 addresses, protocol (TCP/UDP), ports, MAC addresses (in development), Ether types (in development)
Status indicator	4 LEDs
Voltage	DC 18 V ... DC 30 V
Current draw	Max. 250 mA with DC 24 V
Ambient temperature	0 °C ... +60 °C (-20 °C ... +70 °C in development)
Transport and storage temperature	-20 °C ... +60 °C
Protection rating	IP20
Certifications	CE, GCF, FCC, PTCRB, IC

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