

Complex machine integration?

Afraid of cyber-attacks?



Overloaded, faulty network?

THE TAILOR-MADE SOLUTION FOR EASY MACHINE INTEGRATION

WALL IE – Industrial NAT Gateway / Firewall

WALL IE – INDUSTRIAL NAT GATEWAY / FIREWALL

Secure communication · Simple addressing · Intuitive configuration

Success in the automation industry starts with improved security and seamless connectivity.

WALL IE – more than a firewall! Through network segmentation and automatic translation of IP addresses, the NAT gateway makes a decisive contribution to reliable machine integration and securely protects your automation network against unauthorized access. So that your network works even more efficiently and securely.

Do you also struggle with the following network pitfalls?

- Complicated machine integration through IP address adjustment?
- Overloaded network subject to disruptions?
- Cybersecurity – fear of attacks?

Enough! Master the challenges of your automation network now with **WALL IE!**

WALL IE – Your network coach!



High degree of security through access restriction

with packet filters (IPv4 addresses, protocol (TCP/UDP), ports, MAC addresses).

Time savings through automatic translation

of the IP addresses (NAT) without changing the existing network configuration.

Smooth production processes through network segmentation
for more performance in the higher level network – avoidance of broadcasts.



Watch Video

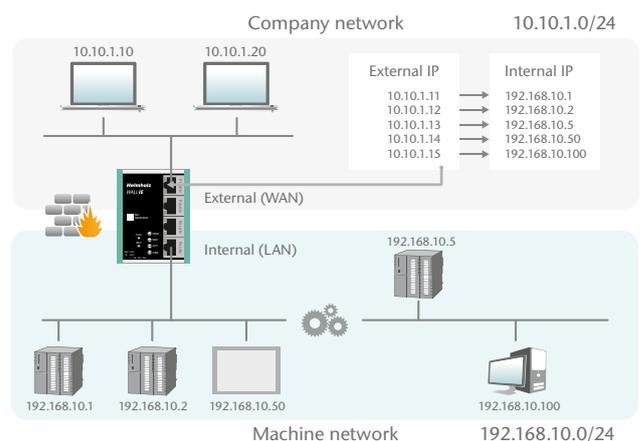
Optimize productivity – lower costs! Integrate your machine network with WALL IE single-handedly into production networks! Thanks to the individual configuration, the **WALL IE** can be easily adapted to the requirements of the respective machine network. If identical IP address ranges are to be realized, **WALL IE** functions as a bridge.

NAT operating mode (Basic NAT)

The NAT operating mode serves the forwarding of data traffic between various IPv4 networks (Layer 3).

It enables the address translation via NAT and uses packet filters for the limitation of access to the automation network located behind.

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

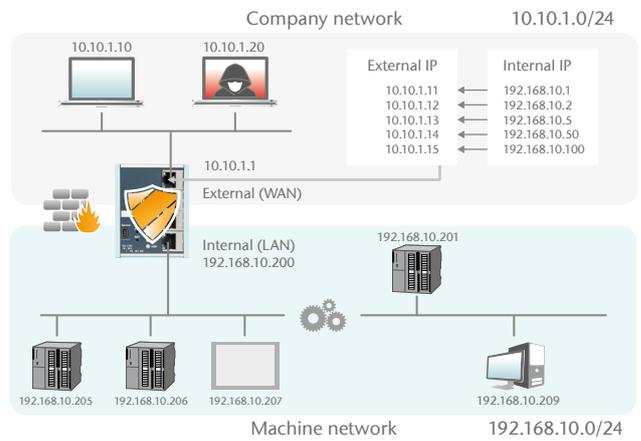


Packet filter functionality

The packet filter enables the limitation of access between the production network and the automation cell.

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 on layers 3 and 4 are available: IPV4 addresses, protocol (TCP/UDP), ports, MAC addresses.

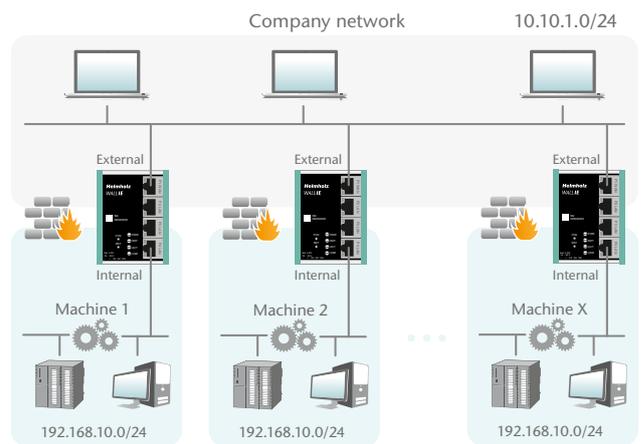


NAT application

When several automation cells with the same address range are to be incorporated into a production network, this can result in collisions, as the addresses in the entire network are not unambiguous.

Using Network Address Translation (NAT), WALL IE makes it possible to incorporate several automation cells into the production network.

Static routes are used for communication with other automation cells. To this purpose, the network and the address of the router responsible for this ("Next Hop") must be configured.

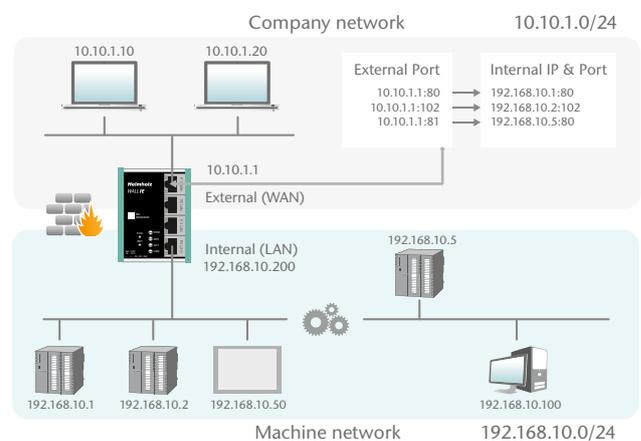


NAPT: Network Address and Port Translation

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.

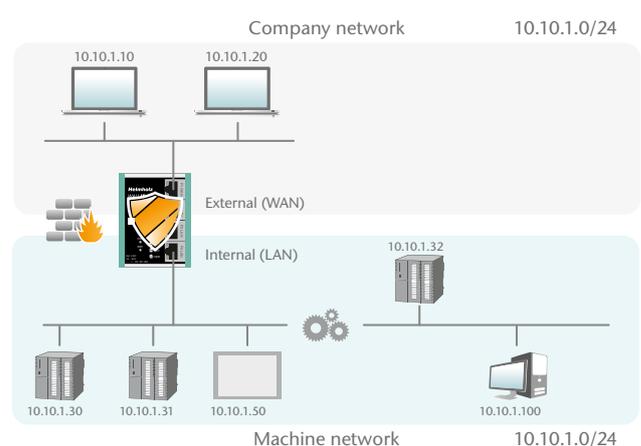
With the help of port forwarding, it can be configured that packets at a certain TCP/UDP port of of this address can be forwarded to a participant in the automation cell (e.g. 10.10.1.1:81 to 192.168.10.5:80).



Bridge operating mode

In the bridge operating mode, WALL IE behaves like a layer 2 switch between the automation cell and the production network.

The packet filter can nonetheless be used to limit access between the two areas. This enables the separation of a part of the production network without using different networks.

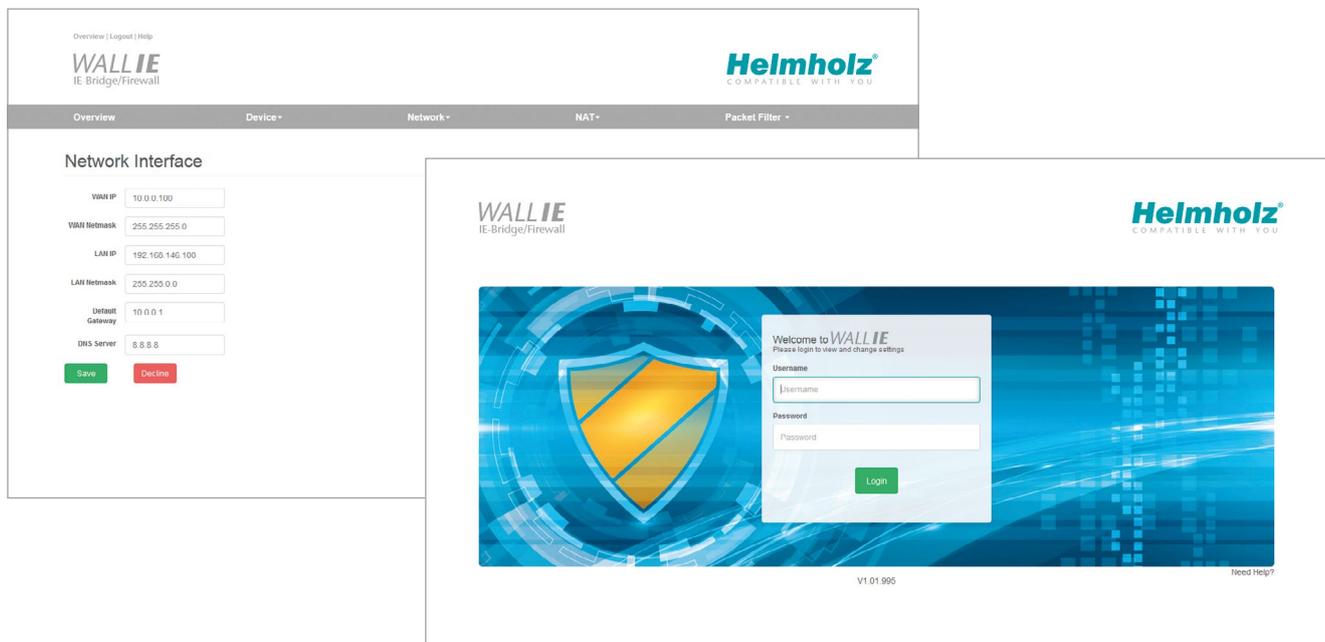


WALL IE – WEBINTERFACE

The **configuration** of the **WALL IE** can be carried out **easily and in a well-structured** fashion with the integrated website.

The website, which is accessible via HTTPS, is password-protected and supports three different user levels (administrator, IT admin and machine user) with different access rights. For the purposes of protecting access to the website, an own HTTPS certificate can then be adopted into the device.

Once set, the configuration can be exported and imported in a readable and editable format. **WALL IE** devices can thus also be configured once and reproduced. For expanded operating diagnosis and usage monitoring, **WALL IE** supports a Syslog server.



TECHNICAL DATA/OTDER DATA

WALL IE, Industrial NAT gateway / firewall (incl. Quick Start Guide)	700-860-WAL01
Dimensions (D x W x H)	32.5 x 58.5 x 76.5 mm
Weight	Approx. 130 g
Interfaces	1x WAN 10/100 Mbps 3x LAN 10/100 Mbps, switch
Operating modes	Bridge, NAT (Basic NAT, NATP)
Packet filter	IPV4 addresses Protocol (TCP/UDP) Ports: "WAN to LAN" and "LAN to WAN" separated MAC addresses (black & whitelisting)
Status indicator	4 LEDs
Voltage supply	DC 24 V (18 ... 30 V DC)
Current draw	Max. 250 mA with DC 24 V
Number of inputs switching point	2/DC 24 V as per DIN EN 61131-2 Type 2 (in progress)
Permissible ambient temperature	-40 °C ... +75 °C
Transport and storage temperature	-40 °C ... +80 °C
Protection rating	IP20
Certifications	CE
UL	UL 61010-1/ UL 61010-2-201
- Voltage supply	DC 24 V (18 ... 30 V DC, SELV and limited energy circuit)
- Pollution degree	2
- Altitude	Up to 2000 m
- Temperature cable rating	87 °C
WALL IE M12, Industrial NAT gateway / firewall (incl. Quick Start Guide)	700-861-WAL01 (available upon request)