Deploying the Right Industrial Firewalls for Your Applications

Increasing cyberattacks and government regulations are compelling industrial operators to incorporate cybersecurity measures in their existing applications. To establish secure zones and conduit across networks, consider using industrial firewalls as an OT cybersecurity solution. Generally, industrial firewalls can be divided into two main types.



Boundary Firewalls

A boundary firewall is deployed between a private and public network and at the perimeter of the different network zones. A boundary firewall needs to perform firewall functions like traffic filtering and Intrusion Prevention System (IPS), as well as networking tasks such as routing and network address translation (NAT). While a boundary firewall offers great flexibility and the most capabilities, it may entail substantial network configuration efforts.

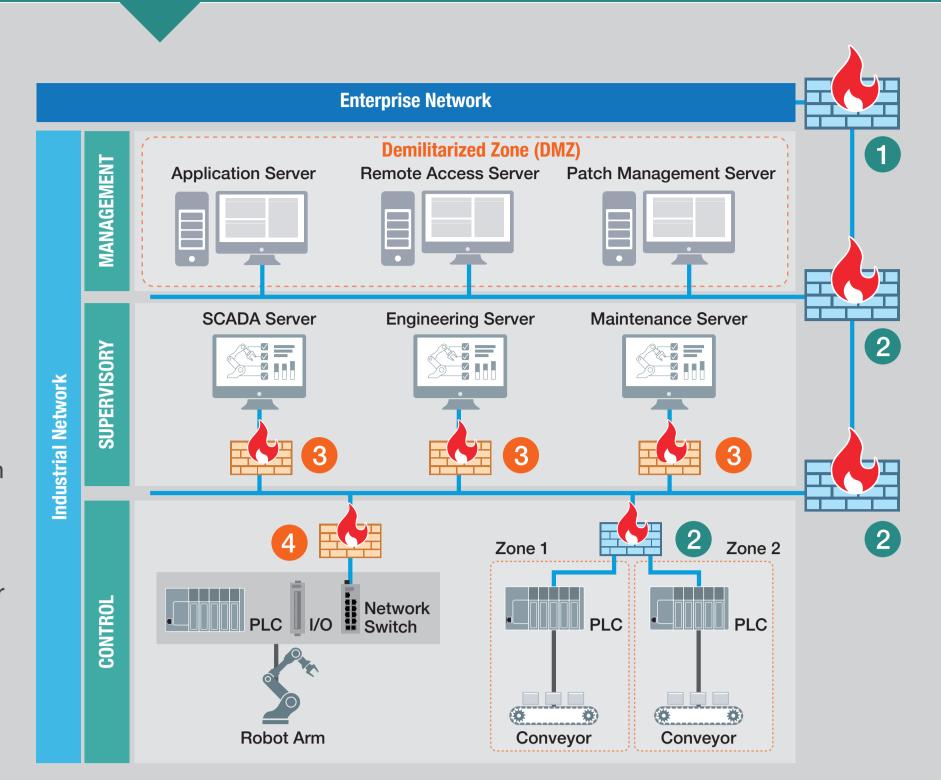


LAN Firewalls

A LAN firewall is effective in safeguarding important assets and a cluster of field devices within a control network where traffic is exchanged on a single subnet. To achieve bump-in-the-wire installation without reconfiguring IP subnets, a LAN firewall avoids participating in networking tasks like routing.

Choosing the Right Firewall Solutions in Four Frequently Seen **User Scenarios**

- I need to protect my industrial network from external access and create a DMZ for secure data exchange.
- I need to establish security perimeters between different network applications in my industrial network.
- I need to enhance the network security level for my critical assets without affecting current network operations.
- I need to enhance the network security for a small group of field devices.



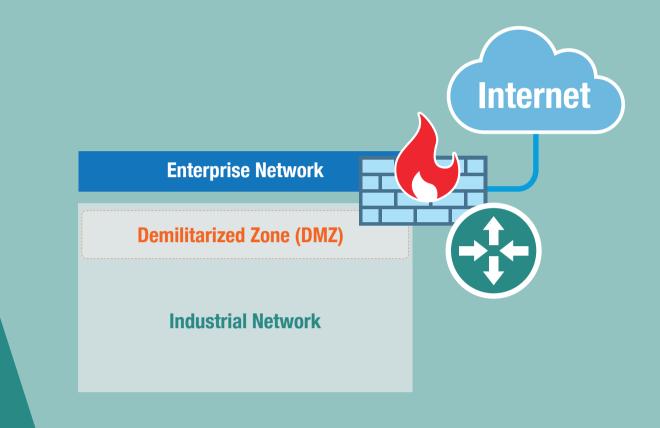
Scenario 1

I need to protect my industrial network from external access and create a DMZ for secure data exchange.

Recommended Solution

Boundary Firewalls

Boundary firewalls provide routing and traffic filtering functions to create secure segmentation between different networks. In addition, boundary firewalls can build a DMZ that only allows limited access from external networks and restricts unauthorized users from accessing the entire networks.



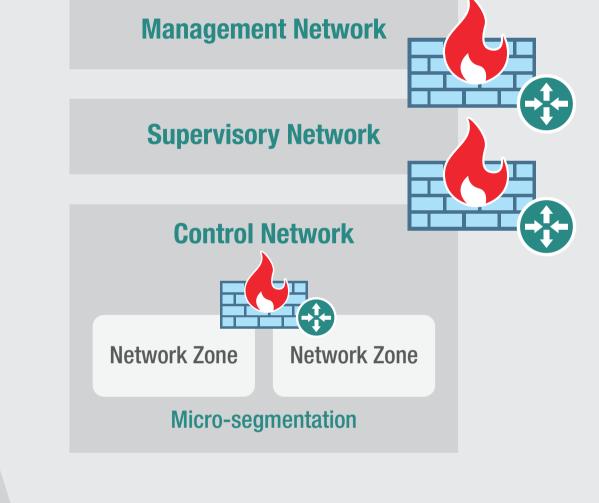
Scenario 2

I need to establish security perimeters between different network applications in my industrial network.

Recommended Solution Boundary Firewalls

Boundary firewalls provide routing functions to segment

network zones and traffic filtering functions to protect communications in between. By creating security perimeters between different network applications and enabling micro-segmentation inside control networks, boundary firewalls mitigate network security risks with layered protections.



Scenario 3

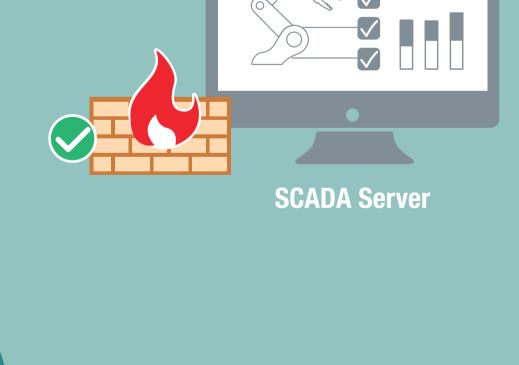
I need to enhance the network security level for my critical assets without affecting current network operations.

LAN Firewalls

Recommended Solution

LAN firewalls can be seamlessly integrated into your existing networks with no IP reconfigurations. By using this

approach, the LAN firewall can protect your critical assets with minimal impact on current network operations.



I need to enhance the network security for a small group of field devices.

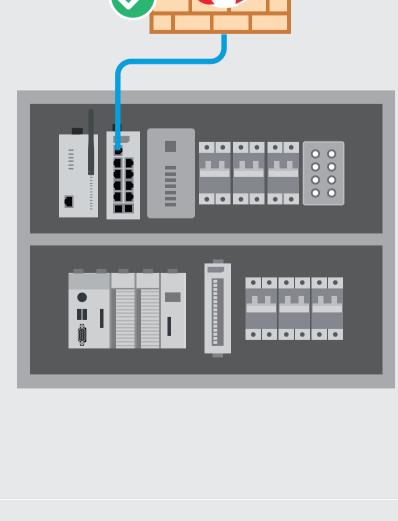
Scenario 4

LAN Firewalls

Recommended Solution

Deploying LAN firewalls in front of a network switch protects field devices in control cabinets, onboard AGVs, and other

small groups of devices connected to the same switch.



Enhance Network Security With Moxa's Industrial Firewall Solutions

Our range of industrial firewall solutions offers a diverse product selection to meet your user scenario. Whether you are deploying an OT cybersecurity solution to protect your critical assets and LAN communications or creating network segmentation and boundaries, we can provide you with a suitable firewall solution that takes care of network performance and security.

LAN Firewall Solutions

Industrial LAN Firewalls

https://www.moxa.com/en/products/industrial-network-infrastructure/network-security-appliance

Learn more about our product portfolio at:



EDF-G1002-BP Series



EDR-G9010/G9004/8010 Series

Industrial Secure Routers