EdgeIPS Pro 216

Intent-Based Industrial Intelligent Protection System

Safeguarding the Future of Industry: OT Network Security Solutions for Uninterrupted Operation

As we enter the era of Industry 4.0, the integration of Operational Technology (OT) into manufacturing and industrial production is revolutionizing the industry. However, this advancement also brings an increase in sophisticated cyber threats such as ransomware, supply chain attacks, and critical infrastructure targeting. To combat these threats, TXOne has developed a comprehensive suite of OT security solutions, meticulously designed in respond to the complex needs of today's production environments.

Selecting the right security solution is essential to any effective cybersecurity strategy. TXOne offers a diverse range of Edge security solutions, tailored to the specific requirements and operational contexts of each industrial vertical. This ensures that every industry can deploy an optimal solution for its unique environment.

In OT security, protecting operations without disrupting production is critical. TXOne's Edge devices provide robust protection while ensuring uninterrupted business continuity. These devices integrate seamlessly into existing networks, eliminating the need for downtime, and in the rare event of hardware failure, they are equipped with multiple bypass mechanisms to maintain smooth production network traffic.

Comprehensive protection is the cornerstone for security, and TXOne leads the industry with advanced features designed to defend against evolving threats. TXOne CPSDR technology strengthens network defenses, preventing unauthorized access and suspicious activities. Additionally, by integrating SageOne, our Cyber-Physical Systems protection platform, OT security operators can correlate network security intelligence with data from other sources, gaining enhanced visibility into their overall security posture. This empowers them to respond more efficiently and effectively to cyber incidents and potential security risks.

Solution Overview

Building a reliable OT network with ease involves three key elements. First, ensuring a strong feature-environment fit is crucial for seamless hardware **adoption**. Second, all security features are designed with a primary focus on **operational** efficiency and continuity. Lastly, OT-specific insights play a pivotal role in enhancing **prevention** capabilities, addressing gaps often overlooked by general IT security products.

You can find your Edge for all sorts of environments —whether harsh or temperate, centralized or distributed. Our flexible connection types and available port density options ensure that your specific needs are met. The pioneering fail-safe mechanisms and AI-driven deployment strategies reduce the configure-to-service time, ensuring a seamless, uninterrupted end-to-end flow. Combined with our OT-centric, proactive prevention technologies, TXOne makes resilient networking both practical and effective. With rising cybersecurity threats, robust OT security is crucial. TXOne Edge products offer innovative Network-wide Security Situational Awareness, providing real-time threat detection and response across the entire OT environment.
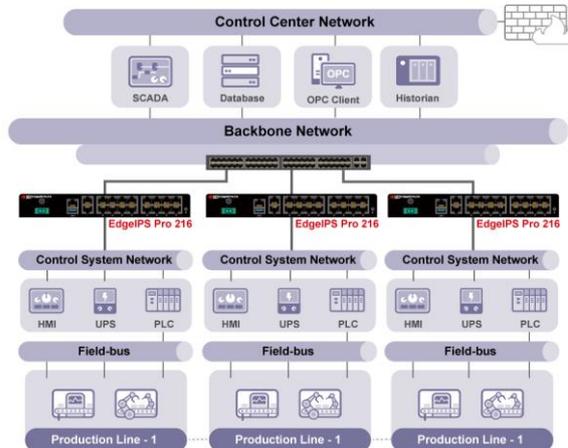
Core Capabilities

Adoption

Fulfilling Technical and Operational Demands with a Swift Onboarding Flow

❖ Offers both rugged and commercial designs to suit various operational needs.
❖ Compact size for space-constrained production sites.
❖ Protect your entire shop floor with a single, high-port-density EdgeIPS Pro device.
❖ Easy on-site installation for rapid deployment.
❖ Batch setup supported with Deployment Assistant.

Operation

Activating Protection Painlessly with No Operational Disruption

❖ Ensures uninterrupted production by supporting fail-safe mechanisms during hardware failures.
❖ Automatic switchover with Universal Bypass feature ensures zero disruption during uplink disconnection, keeping your business continuity.
❖ Automatically creates and deploys security policies based on AI-curated traffic behaviors.
❖ Integrates seamlessly into existing networks without disrupting operations.

Prevention

Crafting a Resilient Network with Operational Insights

❖ Identifies and predicts anomalous network behaviors with CPSDR Networking technology.
❖ Secures OT network communication and prevents insider threats across ICS protocols.
❖ Enhances network segmentation to contain cyber infections and limit lateral movement.
❖ Protects unpatched production assets with signature-based virtual patching and antivirus.
❖ Extends IT to OT network protection by importing suspicious objects from third parties.

Key Features

Cyber-Physical System Detection and Response

EdgeIPS Pro 216 is built with TXOne's pioneering CPSDR (Cyber-Physical System Detection and Response) technology, designed to identify and predict anomalous network behaviors at an early stage. With the CPSDR, your OT network can proactively stay a step ahead of cyber risks, blocking potential threats before they materialize.

Asset-Centric Auto Rule Learning Technology

EdgeIPS Pro 216 features Asset-Centric Auto Rule Learning Technology, an AI-driven solution tailored to the ICS network environment. This advanced technology analyzes traffic for each asset, generating baseline allowlists that can be reviewed individually, streamlining administration and boosting security management.

Mastering Industrial Protocols

EdgeIPS Pro 216 supports a variety of OT protocols, including Modbus, SECS/GEMS, CIP, and more, to allow OT and IT security administrators to collaborate for seamless operation within the existing network architecture.

OT-Aware Operational Intelligence

Our core technology for EdgeIPS Pro 216, TXOne One-Pass DPI for Industry (TXODI), gives you the ability to create and edit allowlists, enabling interoperability between key nodes and deep analysis of L2-L7 network traffic.

Signature-Based Virtual Patching and Antivirus

Virtual patching shelters endpoint and network vulnerabilities while signature-based antivirus provides an extra layer of protection under EdgeIPS Pro 216. Research-supported, up-to-date signatures protect your production assets against the latest threats, and the frequency of flexible updates is fully under the administrator's control.

Unrivaled Threat Intelligence

Leveraging the Zero Day Initiative (ZDI) vulnerability rewards program, EdgeIPS Pro 216 provides your systems with unparalleled protection against undisclosed and zero-day threats.

Multi-Segmenting with Integrated Security

EdgeIPS Pro 216, specifically designed for levels 1-3, can be deployed in front of mission-critical assets or at the OT network edge. Its transparency and high performance enable it to safeguard network traffic and production assets without disrupting operations.

Shadow OT Visibility Enhancement

EdgeIPS Pro is designed to seamlessly integrate and coordinate you IT and OT networks, while also providing visibility into your shadow OT environment.

Centralized Management with Convenient, Consolidated Overview

Pattern updates and firmware management can all be centralized on a large scale. For facilities with extensive EdgeIPS Pro 216 nodes, EdgeOne facilitates group administration and management, thereby reducing costs and enhancing efficiency on a large scale.

High Port Density and Flexible Deployment

EdgeIPS Pro 216 flexibly switches between 'Monitor' and 'Prevention' modes and supports 8 segments to preserve your productivity while maximizing security.

Holistic CPS Protection Platform Integration

By integrating TXOne SageOne with Edge security solutions, you can orchestrate cybersecurity information across all Edge Series devices. This integration goes beyond visibility, offering comprehensive protection and threat detection across all CPS facilities in your organization. It offers actionable recommendations ready for implementation by OT security management teams.

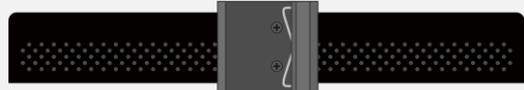## EdgeIPS Pro 216 Hardware

EdgeIPS Pro 216 Rugged

250 mm x 240 mm X 38 mm (9.84 in X 9.44 in X 1.5 in)

Front Panel

Rear Panel

EdgeIPS Pro 216

250 mm x 260 mm X 42 mm (9.84 in X 10.23 in X 1.65 in)

Front Panel

Rear Panel

EdgeIPS Pro 216 Specifications

Feature	EdgeIPS Pro 216 Commercial	EdgeIPS Pro 216 Rugged
Model	IPS-Pro-216-BP-C-TX	IPS-Pro-216-BP-R-TX
Threat Prevention Throughput / Firewall Throughput*	1.8 Gbps+ (IMIX) / 8Gbps+ (UDP 1518 bytes)	
Latency*	<500 microseconds on average under mixed traffic condition	
Concurrent Connection (TCP)	200,000	
Intrusion Prevention / Antivirus / CPSDR-Networking	Yes / Yes / Yes	
Supported ICS Protocol	Modbus / EtherNet IP/ CIP / FINS / S7Comm / S7Comm+ / SECS / GEM / IEC61850-MMS / IEC-104, with more being added regularly	
Policy Enforcement and L2 Policy Enforcement Rules	100,000 rules	
ICS Protocol Filter Profiles	256 profiles	
Form Factor	DIN-rail mounting, server rack mount and wall mounting (with optional kit)	
Weight (Standalone Device)	2 kg (4.4092 lb) without accessory kits	3.2 kg (7.0547 lb) without accessory kits
Dimensions (W x D x H)	250 mm x 260 mm X 42 mm (9.84 in X 10.23 in X 1.65 in)	250 mm x 240 mm X 38 mm (9.84 in X 9.44 in X 1.496 in)
Network Interface Type	10/100/1000 BASE-TX (RJ-45) x 16 ports	
Hardware Failover	8 segments with configurable hardware bypass	
USB Interface / Serial Console	1x USB interface (Type-A) / 1x USB interface (Type-C) for serial console	
MGMT Interface / Mirror Interface	1 x 1Gbps RJ-45 for OOB MGMT port / 1 x 1Gbps RJ-45 for mirror port	
HA Port	1 x 10Mbps/100Mbps/1Gbps RJ-45 for HA port	
Power Supply	Dual power input, 1x terminal block / 1 X 12V DC in Jack standard 12V DC power adapter	
Power Input	12/24/48 VDC, dual redundant inputs (1 x 3 pin terminal block, shall locate in front panel); reverse polarity protection supported. (*12V VDC recommended) and 1 X DC-IN Jack (12V)	
Operating Temperature	0 to 40 ˚C (32 to 104 °F)	-40 to 75 ˚C (-40 to 167 °F) (wide temperature)
Ambient Relative Humidity	5 to 95% (non-condensing)	
Storage Temperature	-40 - 85°C (-40 - 185°F)	
Vibration	2 Gems @ UEC 60068-2-64, random wave, 5-500HZ, 1hr per axis (without any USB devices attached)	
Mean Time Between Failure (MTBF)	190,000 hours (under 25 ˚C)	193,700 hours (under 25 ˚C)
Safety Certification	CE, UL, EN60950-1, IEC60950-1, UL60950-1	
Electromagnetic Compatibility	EMI: CISPR 32, FCC Part 15B Class A / EMC: EN 55032/35, VCCI Class A	
Green Product	RoHS, RoHS2, CRoHS, WEEE	
Centralized Management Console	Supports EdgeOne	

* Note: Performance and latency are measured in a laboratory; these values may vary according to test conditions and system configuration.

* Each EdgeIPS Pro is entitled to 1 year of hardware warranty. Upon renewal of the software license and hardware warranty extension, the hardware warranty will be able to be extended for the same renewal period, subject to a maximum warranty period of 7 years.