

# EmberOT and Phoenix Contact Security Solutions

Raptor series Industrial Switching Platform with EmberOT for total critical infrastructure visibility and security



## Overview

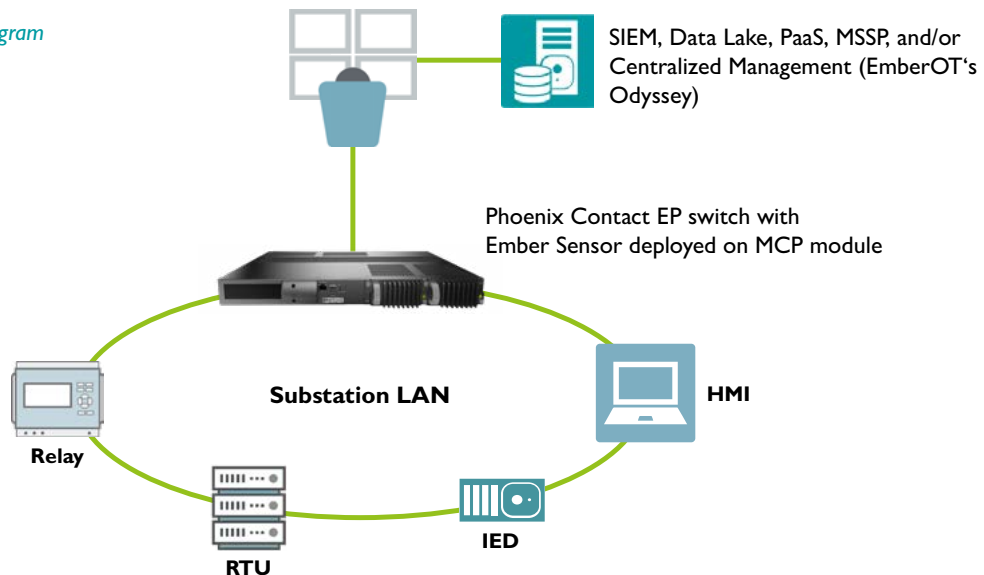
As IT and OT networks converge, the rise in cyber threats has become a pressing concern, particularly within Critical Infrastructure environments like power utilities, nuclear facilities, water utilities, and oil and gas. These networks, often operating in harsh, remote, and inaccessible locations, require robust security measures tightly integrated into their communications architecture. The increasing interconnectivity, driven by digital transformation for business efficiency, has expanded cyber risks, necessitating a defense-in-depth approach to protect Industrial Control Systems (ICS) and OT assets. Security teams must enhance operational efficiency and visibility across OT environments to identify and manage vulnerabilities effectively.

Rackspace and power consumption are precious commodities in most OT environments, making single-box solutions with rich functionality attractive to the industry. EmberOT's software solution provides continuous insight into status, vulnerabilities, and threats, enabling teams across the organization to more effectively see, know, and take action to defend industrial systems and protect critical infrastructure.

## Solution

The Raptor is an intelligent, cybersecure hardware platform with 64 Gb/s full line speed with up to 4 x 10Gb/s + 24 1Gb/s ports running a feature-rich embedded OS. The Raptor embedded OS is an all-encompassing operating system that supports L2/L3 switching and routing on a single platform. Its modular system of field-replaceable modules, redundant hot-swappable power supplies, and ability to run third-party software applications make it a very flexible platform for today and the future. Combined with EmberOT, Raptor will enable industrial networks to have a "best in breed" solution for asset discovery, threat detection, and defense.

Figure 1: Network Topology Diagram



# EmberOT's Unique Approach to OT Security

EmberOT stands out with its 100% software-based solution, empowering analysts and operators with tools designed explicitly for OT environments. This approach ensures:

**Complete Asset Visibility:** EmberOT's sensor technology discovers and protects invisible OT assets at scale, enabling up to 100% visibility into your OT environment by deploying on almost any existing hardware.

**Continuous Observability and Risk Indexing:** Through localized aggregation and correlation of sensor data, EmberOT provides real-time threat detection and defense, offering actionable insights to quantify risk and prioritize vulnerabilities specific to your environment.

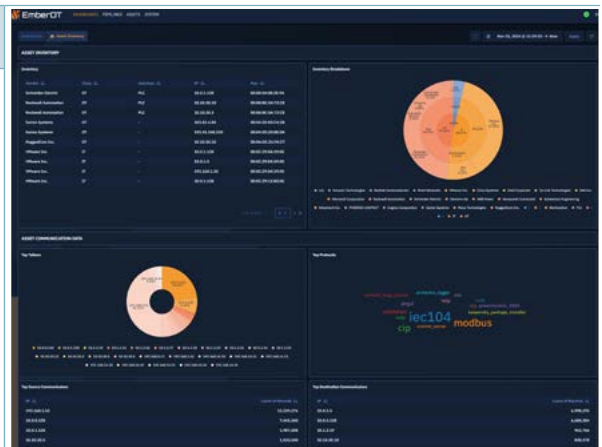
**Customizable Threat & OT Detection:** EmberOT allows for customized threat rule sets and the unique ability for users to author and/or upload detections — a feature unmatched by competitors.

## EmberOT Benefits

### Add Visibility & Reduce Risks

#### Offer Your OT Team Comprehensive Visibility.

- Real-time Asset Inventory and Risk Index.
- Actionable insights from the plant floor, substation, or other disparate system to the SOC and everywhere in between.



### Improve Operational Performance

#### Enhance Operations With Centralized, Scalable Monitoring.

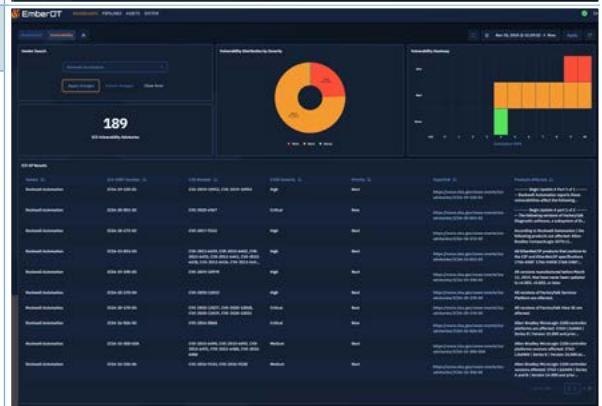
- Simplify monitoring of highly distributed, worldwide facilities.
- Identify preventative maintenance and gain insights into operational performance.



### Real-Time Monitoring & Defense




#### Secure Your Operations And Defend Systems In Real Time.

- Monitor and detect operational and cyber events as they're happening.
- Effectively respond to alerts and events, whether cyber or otherwise, before they impact operations.



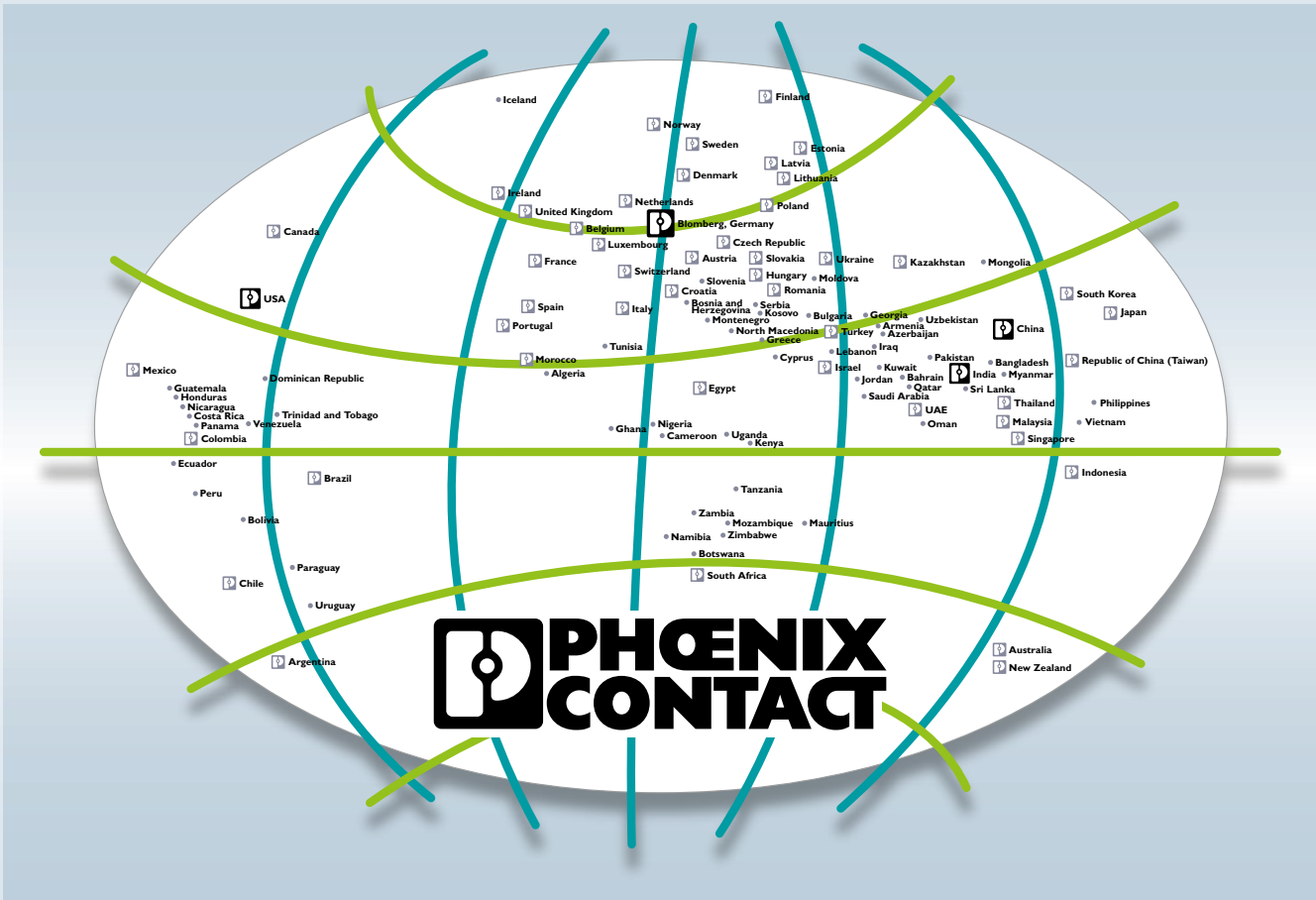
## Related Products



Chassis	Description	Designation	Item No.
	FL SWITCH EP7400 Series Chassis. IEC 61850-3 / IEEE 1613, Layer 2/3 Switch, -40°C to +85°C Operating Range. Supports up to 28 ports total.	FL SWITCH EP7428R-L3F1	1144353
	FL SWITCH EP7400 Series Chassis. IEC 61850-3 / IEEE 1613, Layer 2/3 Switch, -40°C to +85°C Operating Range, Supports up to 24-ports PoE, 28 ports total.	FL SWITCH EP7428R-L3F1P	1539668
Chassis	Description	Designation	Item No.
	FL SWITCH EP7500 Series Chassis Security enabled. IEC 61850-3 / IEEE 1613, Layer 2/3 Switch, -40°C to +85°C Operating Range. Supports up to 28 ports total.	FL SWITCH EP7528R-L3F1	1539667
MCP Computing Module	Description	Designation	Item No.
	MCP Computing Module , Ubuntu, 256GB storage	FL SWITCH EP7400-MCP-L-256GB	1539661
	MCP Computing Module , Ubuntu, 512GB storage	FL SWITCH EP7400-MCP-L-512GB	1539663
	MCP Computing Module , Ubuntu, 1TB storage	FL SWITCH EP7400-MCP-L-1TB	1539665
	MCP Computing Module , Ubuntu, 2TB storage	FL SWITCH EP7400-MCP-L-2TB	1539666

## About EmberOT

EmberOT solves critical infrastructure security challenges by meeting organizations where they are today. Predecessor solutions are hardware-dependent and cost-prohibitive. EmberOT's software-based sensors help organizations monitor and defend their environments NOW while showing them a path to the FUTURE, combining secure by design with defense in depth. Our software provides immediate observability and detection, coupled with actionable insights and guidance on "What should I do next?" to ensure critical infrastructure resilience and security. For more about EmberOT, visit [www.emberot.com](http://www.emberot.com) or email [info@emberot.com](mailto:info@emberot.com).



## Open communication with customers and partners worldwide

Phoenix Contact is a global market leader based in Germany. We are known for producing future-oriented products and solutions for the electrification, networking, and automation of all sectors of the economy and infrastructure. With a global network reaching across more than 100 countries with over 22,000 employees, we maintain close relationships with our customers, something we believe is essential for our common success.

Our wide range of innovative products makes it easy for our customers to implement the latest technology in a variety of applications and industries. This especially applies to the target markets of energy, infrastructure, industry, and mobility.

You can find your local partner at

[phoenixcontact.com](http://phoenixcontact.com)