

# How Terna Strengthened OT Resilience with TXOne Networks' Portable Inspector Pro.

Plug & play protection for critical infrastructure – simple for operators, powerful for IT.

## Introduction

Terna is Europe's largest independent electricity transmission operator and the sole Transmission System Operator (TSO) in Italy. Responsible for the National Transmission Grid (RTN), the company ensures the continuous delivery of electricity across the country, maintaining the delicate balance between supply and demand — a service that is fundamental to Italy's economy and daily life.

In an increasingly complex international landscape — marked by geopolitical risks and the growing interdependence of Europe's power networks — cybersecurity has become an indispensable element of operational reliability. Recognising this, Terna has made cyber and OT security a strategic priority, integrating innovative technologies that enable rapid and effective responses to an ever-evolving threat environment.

## Terna

*"Because the technology is truly plug & play, there was no need for extensive training — colleagues in the field could use it immediately, without changing their routines."*



**Paolo Migliore**  
Cyber Security  
Architectures &  
Engineering di Terna

*"The only real change is the certainty of working in a safer and more secure environment."*

## Customer Story

### The Challenge

Terna's operational technology (OT) infrastructure has an exceptionally long lifecycle. These systems must increasingly interact with modern IT environments, creating new challenges in protecting them against sophisticated and persistent threats.

"One of our key areas of concern was the use of traditional USB drives by field operators," explains Paolo Migliore, Cyber Security Architectures & Engineering at Terna. "In the past, our substations were isolated environments, disconnected from the broader network. Today, for maintenance and monitoring purposes, they need to be both reachable and remotely supervised."

In this new, interconnected scenario, the use of conventional USB drives — often employed to transfer configuration files and data — represented a significant risk vector. While convenient and widely used, such devices can easily carry malware and compromise critical industrial systems.

Given the difficulty of verifying the integrity of USB drives at every use, even a single infected device could lead to potentially severe consequences for the operational environment.

### The Solution

To address this risk, Terna adopted Portable Inspector Pro by TXOne Networks — a tamper-proof USB drive that goes far beyond secure storage. When connected, it automatically performs an agent-less malware scan of the host system, providing immediate protection without the need for installation or configuration.

Integrated with the ElementOne management console, the solution also collects detailed information about the health of connected machines and generates instant reports that can be easily understood, even by non-technical staff.

"The rollout was remarkably fast," says Migliore. "After an initial pilot in a controlled environment, we distributed Portable Inspector Pro to around 400 operators. Because the technology is truly plug & play, there was no need for extensive training — colleagues in the field could use it immediately, without changing their routines."

"The only real difference," Migliore adds, "is that now we can work with confidence, knowing the environment is safer and better protected."



*"Terna has strengthened confidence in plant protection and made joint work between Cyber, OT operators, and IT teams more efficient."*

## Customer Story

## The Benefits

The introduction of Portable Inspector Pro has significantly reduced the infection risks associated with traditional USB drives. Today, Terna's field operators rely on an intuitive and immediate system: a simple visual indicator signals whether a connected device poses a threat — no advanced technical knowledge required.

For Terna's Cyber and IT teams, the advantages go well beyond malware prevention. The ability to automatically collect system status reports enables precise on-site assessments, improving visibility and optimising maintenance planning.

This means enhanced protection, improved coordination between Cyber, OT and IT teams, and greater overall resilience of the transmission infrastructure.

"With TXOne's solution," says Migliore, "Terna has strengthened trust in the protection of its assets and increased the efficiency of collaboration between our Cyber, OT and IT departments."

## Conclusion

For Terna, OT security is an integral component of its industrial strategy. The company's collaboration with TXOne Networks demonstrates how targeted, practical risk mitigation can deliver immediate and tangible results — even within complex, large-scale infrastructures.

"TXOne Networks' Portable Inspector Pro," concludes Migliore, "has proven to be a technology that combines operational simplicity, effective threat prevention and greater system resilience."

### About TXOne Networks

TXOne Networks offers cybersecurity solutions that ensure the reliability and safety of industrial control systems and operational technology environments. TXOne Networks works together with both leading manufacturers and critical infrastructure operators to develop practical, operations-friendly approaches to cyber defense. TXOne Networks offers both network-based and endpoint-based products to secure the OT network and mission-critical devices using a real-time, defense-in-depth approach. Learn more at [www.txone.com](http://www.txone.com).

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