# Prevent, Detect, Defend:
## Intelligent Security Solutions for High-Risk Facilities
### NEC Intelligent Perimeter Intrusion Detection System (IPIDS)

Federal and critical infrastructure sites face rising threats – from trespassing and vandalism to terrorism and sabotage. Perimeter security is essential to safeguard operations, ensuring real-time detection, deterrence, and delay of unauthorized access.

The American Society of Civil Engineers (ASCE) recommends proactive security measures to prevent infrastructure failures.[1]

Government agencies and industries are investing heavily, driving a global perimeter security market projected to hit $132 billion by 2030 (9.4% annual growth).[2]

A perimeter breach endangers public safety and national interests. Reinforcing your defenses is not optional, it's critical.

# Why Invest in Perimeter Security?

**Intercept Threats Early** – A fortified perimeter stops intrusions before they reach high-value assets, reducing risks of theft, espionage, and sabotage.

**Protect Essential Infrastructure –** From power grids to military bases, robust perimeter defenses ensure operational security and continuity.

**Enable Rapid Response –** Intelligent detection systems give security teams early warnings, preventing breaches from escalating into catastrophic failures.
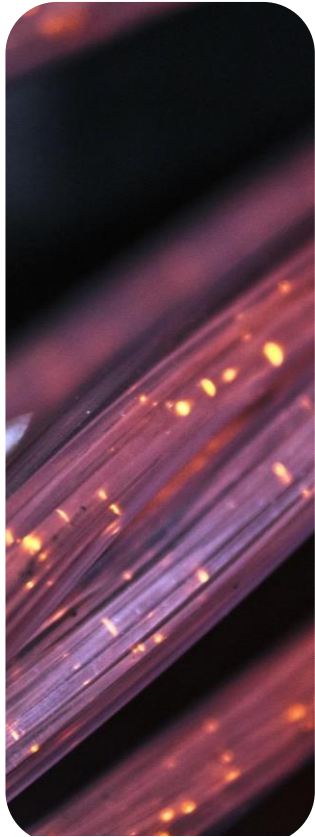
## Real-World Example:

A recent escape of 10 inmates from Orleans Parish Jail (Louisiana) underscored the cost of perimeter lapses. Faulty locks and blind spots allowed a breakout that went undetected until too late. An intelligent perimeter system like NEC IPIDS could have formed a virtual tripwire around the facility – instantly detecting fence cutting or tunneling and alerting operators in real time. This kind of proactive intrusion detection offers a critical safety net against exactly such scenarios.

## Introducing NEC IPIDS – Intelligent Perimeter Intrusion Detection

To address the urgent need for smarter perimeter defense, NEC National Security Solutions has developed the **Intelligent Perimeter Intrusion Detection System (IPIDS)** – a next-generation solution for protecting federal facilities, critical infrastructure, and national assets. NEC IPIDS combines advanced fiber-optic sensing with AI-driven analysis to classify and pinpoint perimeter disturbances in real time, instantly alerting security teams while minimizing false alarms. In other words, it detects intrusions immediately and tells you what happened and where, so you can respond without delay or guesswork.

## How NEC IPIDS Works



Covert fiber-optic cables are deployed along your perimeter – buried underground or mounted on fences and walls – forming an invisible detection grid. A centrally located *interrogator* unit continuously sends light pulses through the fibers and monitors the return signal.

When a physical intrusion (for example, cutting the fence or footsteps on the ground) causes vibrations in the fiber, the interrogator senses subtle changes in the light signal (even a fiber break) and the AI engine instantly analyzes the data to classify the disturbance and pinpoint its location. This happens simultaneously for multiple events, allowing one IPIDS system to track numerous intrusions at once.

The system is versatile. NEC IPIDS can distinguish between a person walking, running, or crawling, detect fence climbing or cutting, sense vehicles driving by, and even recognize digging or tunneling attempts beneath the ground. **Security personnel get real-time, geolocated alerts for each incident, enabling informed and immediate action.**

## Built for Extreme Conditions



NEC designed IPIDS for unmatched performance in extreme environments. The fiber-optic sensors have no electrical components in the field, making them inherently safe and lightning-proof.

The system performs reliably through severe weather, temperature extremes, and rugged terrain. Whether it's desert heat, arctic cold, or hurricane conditions, IPIDS keeps guarding your perimeter.

**This durability means minimal maintenance and downtime, translating to lower lifecycle costs and assured 24/7 coverage when you need it most.** IPIDS has a low footprint and can protect vast perimeters without disrupting the landscape – an important advantage for open areas like parks or remote sites.

# Seamless Integration

The IPIDS platform plugs into your existing security operations effortlessly. An intuitive graphical interface displays the facility map with real-time intrusion locations and status alerts.

The software is customizable and can trigger automated responses, such as cueing nearby PTZ cameras to focus on the breach point, dispatching a drone to surveil, or notifying on-call security staff.

IPIDS also archives data on disturbances, supporting forensic analysis and long-term trend monitoring. It's a force multiplier for your security team, allowing fewer personnel to monitor more area with greater accuracy and intelligence.

Notably, NEC IPIDS leverages over 60 years of experience in transoceanic fiber communications combined with cutting-edge AI analytics. NEC's deep expertise means IPIDS delivers high-precision detection with low false alarms and maintenance, far outperforming legacy perimeter sensors.

**IPIDS is an intelligent, scalable, and proven solution designed to secure critical infrastructure and high-risk facilities.**

# Key Advantages of NEC IPIDS

- **Low Total Cost of Ownership** – Reduce operational expenses while maintaining top-tier security. IPIDS's low-maintenance design and reliability cut down on manpower and repairs.

- **Multi-Environment Deployment** – Protect land borders, industrial sites, airports, seaports, and military facilities with one adaptable solution. The same IPIDS system can be tuned for different terrains and facility types, from remote pipelines to urban campuses.

- **Automated Intelligence** – Seamlessly capture, analyze, and report security data for enhanced decision-making. AI-driven classification filters out nuisances and delivers actionable alerts, integrating with your command center systems.

- **Scalability & Efficiency** – Optimize security personnel and resources, ensuring a smarter, more effective approach to perimeter defense. IPIDS covers large perimeters with less infrastructure and can scale up to secure multiple sites, allowing your team to do more with less.

NEC National Security Solutions (NSS) – a U.S.-based, federally focused division of NEC – is at the forefront of real-time situational awareness and identity intelligence technologies. With IPIDS, NSS brings acclaimed NEC innovation to perimeter security. This field-proven system is already helping protect critical infrastructure, military installations, and other high-security environments, mitigating risks and ensuring uninterrupted operations.

## — Take the Next Step

- **Schedule a Demo:** See NEC IPIDS in action with a personalized demonstration at your facility. Experience how fiber-optic intelligent sensing can transform your perimeter security.

- **Download the Product Sheet:** Get detailed technical insights, use cases, and deployment guidance. Learn how this solution fortifies sites like yours and secures our nation's critical assets.

Unlock superior perimeter protection for your facilities before the next threat breaches your fences. NEC IPIDS offers the technology and trusted expertise to help you stay ahead of intruders and keep your operations safe.

Now is the time to fortify your front line. Visit NECNSS.com today!

Sources:
1. "2025 Report Card for American's Infrastructure," American Society of Civil Engineers (ASCE)
2. "Global perimeter security market predicted for $132.4 billion by 2030," Security World Market