NetworkIntegrity
SYSTEMS

VANGUARD™ | **SENTINEL™**

Safeguarding Data Centers and the Power That Sustains Them

PROTECTION FOR DATA CENTERS AND THE POWER INFRASTRUCTURE BEHIND THEM

In today's digital era—driven by AI, cloud computing, and unprecedented data demand—data centers and the power stations that sustain them have become the backbone of our connected world. Their resilience is non-negotiable. From the flow of information within the data center and across long-haul fiber connections, to the security surrounding these facilities and the continuous power that keeps servers alive, every link in the chain must be safeguarded with vigilance and precision.

At Network Integrity Systems, we deliver **"The Backbone of Security"**—a continuous, unbroken line of defense that protects your most critical network infrastructure.

Our solutions secure the entire ecosystem:
- Safeguarding data integrity and ensuring uptime
- Detecting unauthorized access at handholes, cabinets, and manholes
- Monitoring perimeters restricted zones and data center cages for intrusion
- Mitigating environmental risks with real-time temperature sensing along power busways and other critical electrical pathways
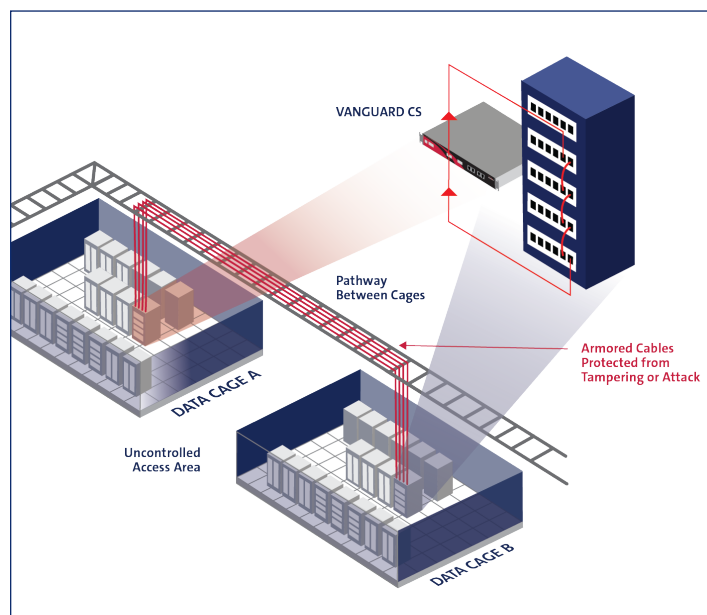
Together, these capabilities ensure the reliable, secure, and uninterrupted operation of the networks that power our world.

EXPLORE OUR SOLUTIONS THAT SAFEGUARD THE BACKBONE OF TODAY'S DIGITAL WORLD

PROTECTION FOR DATA CENTER NETWORKS AND SCADA POWER SYSTEMS

VANGUARD™ FIBER OPTIC NETWORK MONITORING SYSTEM

Ideal for co-located data centers where infrastructure runs between cages, floors, and uncontrolled areas, VANGUARD safeguards data integrity by continuously monitoring unused fibers in optical cables for signs of tampering, intrusion, or damage. Built to military-grade standards, VANGUARD secures up to eight cables or pathways with a single device. The result: early threat detection, stronger data security, and uninterrupted network performance.


VANGUARD CS

Pathway Between Cages

Armored Cables Protected from Tampering or Attack

DATA CAGE A

Uncontrolled Access Area

DATA CAGE B

SAFEGUARDING INTER-DATA CENTER CONNECTIONS FROM DAMAGE OR DATA THEFT

VANGUARD FOCUS^{NX™} OPTICAL INTRUSION DETECTION SYSTEM

VANGUARD FOCUS$_{NX}$ employs Distributed Acoustic Sensing (DAS) to continuously monitor long-haul fiber cables in real time, pinpointing risks with up to 1-meter accuracy. It is the only Layer-1 security solution purpose-built to protect fiber connections between data centers from cuts, taps, accidental digging, or environmental events that can disrupt critical interconnectivity.

The system detects tampering, intrusions, and damage without impacting bandwidth, while integrated management software delivers alarms, situational awareness, and system control through a single pane of glass. With rapid detection, predictive monitoring, and preventative protection, VANGUARD FOCUS$_{NX}$ reduces downtime risk, safeguards interconnectivity, and ensures resilient data center operations.
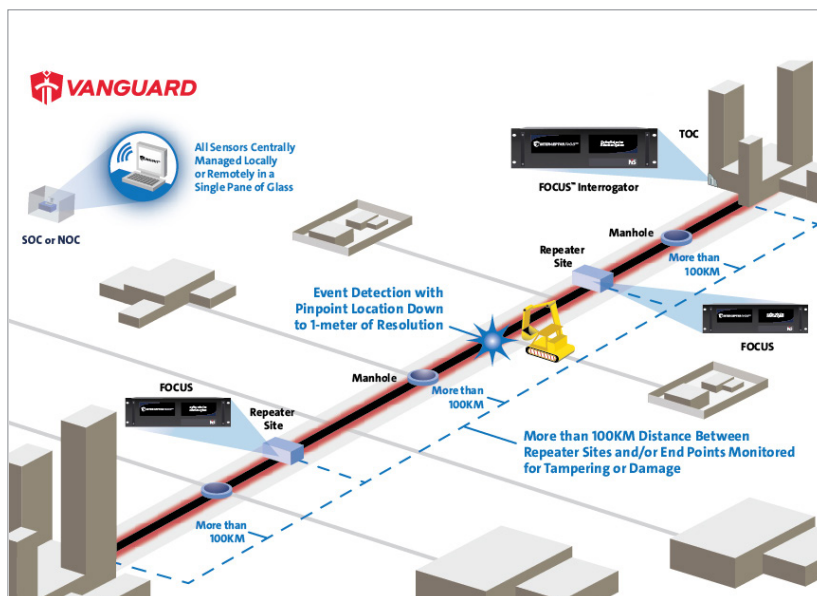

SECURING ACCESS POINTS SUCH AS ZONE BOXES, CABINETS, AND MANHOLES
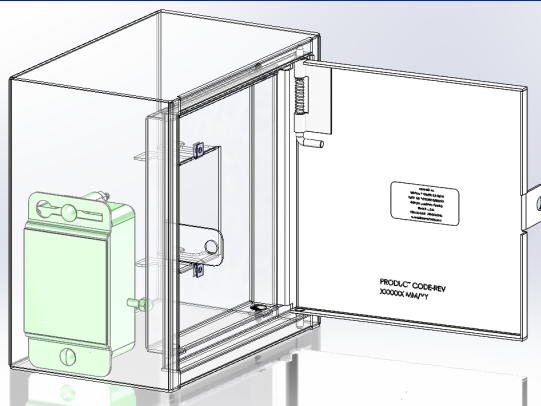
SENTINEL AXS™ AUTOMATED OPEN/CLOSE SENSORS

This versatile solution is designed to detect open and close events, making it ideal for lock boxes, maintenance holes, and other locations where a verified open or closed state is critical. The system leverages new technology that reduces cost and simplifies maintenance, with standard sensors that can be deployed anywhere. Fully integrated with INSIGHT™ software, it supports single-mode fiber and is available in 1, 2, and 4-port models. The use of passive sensors means no power is required in the field, further enhancing reliability and ease of deployment.

REAL-TIME TEMPERATURE MONITORING OF POWER BUSWAYS
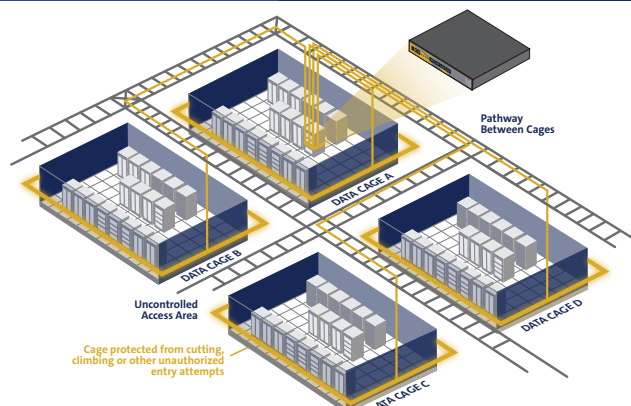
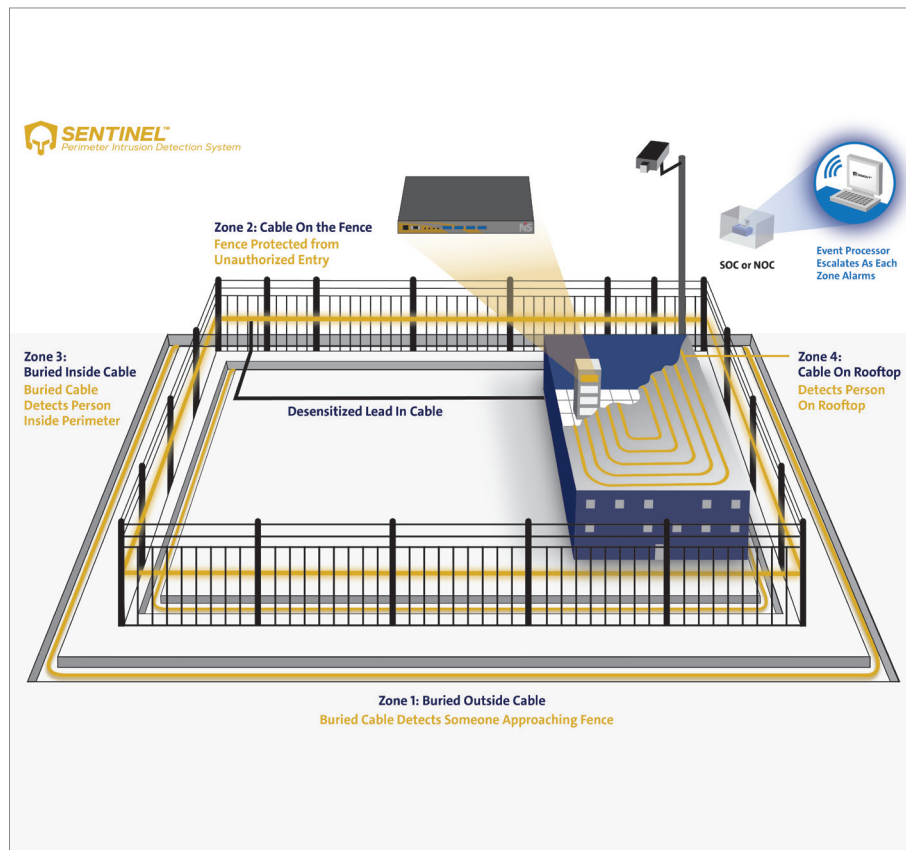### SENTINEL TS™ DISTRIBUTED TEMPERATURE SENSING SYSTEM

The SENTINEL TS attaches optical fiber directly to power busways to enable continuous, real-time temperature monitoring along their entire length. Using Raman scattering to analyze backscattered light in the fiber, it accurately detects overheating patterns over every inch of busway that could lead to bus failure and power outages. This proactive, fiber-based approach helps prevent critical failures, reduces downtime, and enhances the reliability and efficiency of power distribution systems.

MULTI-LAYERED PERIMETER DEFENSE FOR DATA CAGES AND SUBSTATIONS

SENTINEL™ PERIMETER INTRUSION DETECTION SYSTEM

A single SENTINEL can monitor up to eight perimeter zones, providing 24/7/365 continuous monitoring to detect and instantly alert security personnel to intrusion attempts such as cutting, climbing, or fabric lifting. Our capabilities set us apart in the industry as we are uniquely positioned to offer:
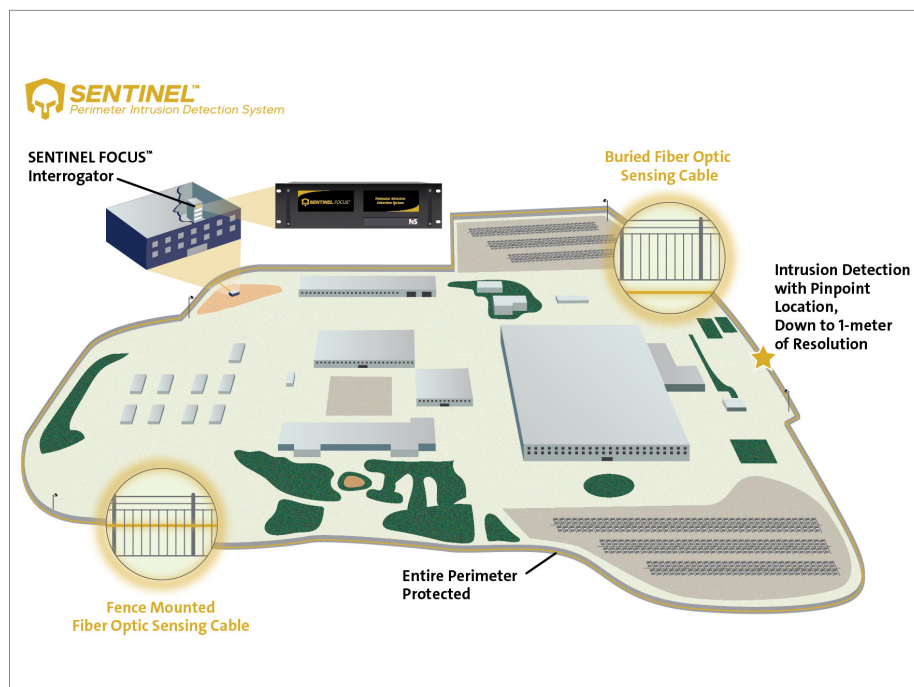
- Industry-leading self-tuning technology automatcally adjusts to environmental changes, ensuring reliable detection even in wind and rain, while minimizing false alarms.
- A Rooftop intrusion detection feature enhances security coverage for elevated areas.
- Award winning, zone-based buried cable detects movement near the fence line, adding a proactive layer of defense.

SENTINEL™
Perimeter Intrusion Detection System

Zone 2: Cable On the Fence
Fence Protected from Unauthorized Entry

SOC or NOC

Event Processor Escalates As Each Zone Alarms

Zone 3:
Buried Inside Cable
Buried Cable Detects Person Inside Perimeter

Desensitized Lead In Cable

Zone 4:
Cable On Rooftop
Detects Person On Rooftop

Zone 1: Buried Outside Cable
Buried Cable Detects Someone Approaching Fence

SECURING DATA CENTERS AND EXPANSIVE POWER STATION PERIMETERS

SENTINEL FOCUS^NX PERIMETER INTRUSION DETECTION SYSTEM

SENTINEL FOCUS^NX employs Distributed Acoustic Sensing (DAS) technology to monitor optical fibers that are covertly buried along borders or mounted along perimeters. When physical intrusions create vibrations that reach the optical fibers, the interrogator discerns changes in the light. Then, machine learning-based AI instantly and simultaneously classifies the type of intrusion, such as walking, tunneling, climbing or fence cutting, and pinpoints the location of the intrusion with an accuracy of up to 1-meter resolution.

SENTINEL™
Perimeter Intrusion Detection System

SENTINEL FOCUS™
Interrogator

Buried Fiber Optic Sensing Cable

Intrusion Detection with Pinpoint Location, Down to 1-meter of Resolution

Entire Perimeter Protected

Fence Mounted Fiber Optic Sensing Cable

INSIGHT™ ALARM MANAGEMENT SOFTWARE

INSIGHT is a sophisticated, customizable, purpose-built alarm response and management application designed to integrate seamlessly with the SENTINEL and VANGUARD Suite of products. Developed from the ground up with strict adherence to U.S. Government Security Technical Implementation Guides (STIGs), INSIGHT prioritizes cybersecurity at every level. It is offered as a perpetual license, eliminating the need for mandatory annual renewals.

To help customers leverage their existing alarm response infrastructure, INSIGHT offers INTERLINK™—a flexible integration feature set that allows third-party sensor data to be seamlessly incorporated into current systems. INTERLINK can also operate independently of the full INSIGHT platform, enabling an easy transition while preserving and enhancing the value of previous security investments. Plus, it comes at a lower price than the complete INSIGHT package.
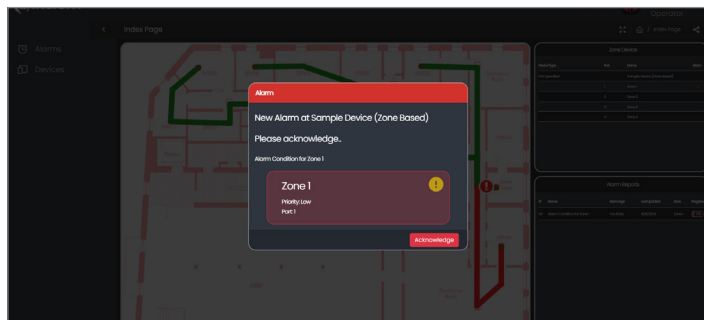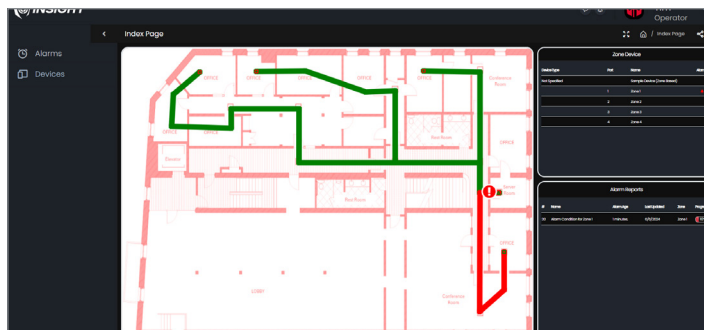
WARRANTY AND SUPPORT PROGRAM (WSP)

The NIS Warranty and Support Program (WSP) provides up to 5 years of comprehensive hardware coverage and flexible support options tailored to your needs. Backed by industry-leading service, WSP gives you peace of mind. Choose from three levels of support—ranging from online and phone assistance to on-site service—for 1, 3, or 5 years. We're committed to ensuring an exceptional experience with every product.

MADE IN THE USA, FOR THE USA

Network Integrity Systems (NIS), head-quartered in Hickory, N.C., proudly designs, engineers, and supports the SENTINEL™ and VANGUARD™ platforms entirely in-house—including all firmware and software for most SENTINEL and VANGUARD products. For select OEM components, NIS still provides end-to-end consultation, installation, and support. This means customers receive a fully integrated solution from a single, U.S.-based company—ensuring accountability, security, and unmatched responsiveness.

DELIVERING REAL-TIME INTELLIGENCE

As threats evolve, so must the systems designed to detect and deter them. Fiber optic sensing delivers the real-time intelligence and reliability needed to stay ahead of potential risks—without compromise. By integrating this advanced technology into a layered security strategy, organizations can protect their people, assets, and operations with greater confidence and clarity than ever before.

For More Information On Our SENTINEL and VANGUARD Product Lines, Visit Our Website:

www.networkintegritysystems.com

www.networkintegritysystems.com