



Situation:

Information flow is the lifeblood of modern banking and financial institutions. As such, the Information Technology (IT) systems used by financial organizations are mission critical. It is vital that these systems be resilient and highly secure to ensure minimal downtime and confidentiality. Most financial institutions depend on robust fiber optic cabling infrastructure for network connectivity. A single optical fiber carries massive amounts of information and typical cables utilized in financial operations contain a range of dozens to hundreds of optical fibers. This makes fiber optic cables attractive targets for attackers intent on intercepting proprietary company and customer information or disrupting or denying service, either of which would be disastrous to the organization and even potentially impact the stability of the country's financial system.

Often these critical fiber optic cables are installed in spaces easily accessible to anyone having access to the facility. Unfortunately, most companies have ignored the vulnerability of their network infrastructure (Layer-1 of the OSI model) within their overall security profile. This oversight robs them of critical situational awareness necessary to immediately identify or predict that a harmful event, such as a denial-of-service attack or an attempt to intercept data is either looming or underway. Depending on the nature and severity of the event, the outage or theft of information may span a considerable amount of time or even go undetected. The costs of lost revenues, public trust and corporate reputation could be immeasurable.

The Solution:

The VANGUARD™ CS Network Infrastructure Security Solution is the only Layer-1 cyber security solution that utilizes proven military grade technologies developed for and used extensively by the US Government and Military as well as Intelligence Agencies to defend and protect classified networks from physical attack. The system performs continuous analysis of cables and/or pathways to detect even the most subtle events triggered by unauthorized access to cables, intrusions into the pathways or network infrastructure, tampering with the cable system prior to the application of a cable tap, and accidental or intentional damage, all while having zero impact on network bandwidth.

VANGUARD CS is supported by an enterprise alarm management software system which enables remote monitoring and management of alarm devices from anywhere in the world. This system provides further intelligence and situational awareness and identifies the location of the event (broken into discrete zones).

VANGUARD CS allows organizations to define the severity of an event, and Fiber Forensics™ technology uses sophisticated algorithms to identify the nature of the event (i.e. accidental contact, cable break, fiber tapping, etc.) and eliminate false positives. The software also automates the creation of site-specific Standard Operating Procedures (SOPs) which includes a variety of response protocols and tools such as alarm notification contact lists, as-built images and drawings, case management rules and much more. VANGUARD CS integrates with physical security systems such as CCTV, Access Control Systems, and PSIM systems. Additionally, VANGUARD CS software can be programmed to automatically shut off or reroute data, further protecting financial services providers and their customers. VANGUARD CS can be easily added to any financial organization's current security profile.

"If the VANGUARD CS had not been installed on our network, we would have had no way of knowing that critical patch cords were inadvertently unplugged. By the time we would have found the source of the problem, there is no telling how much revenue would have been lost."

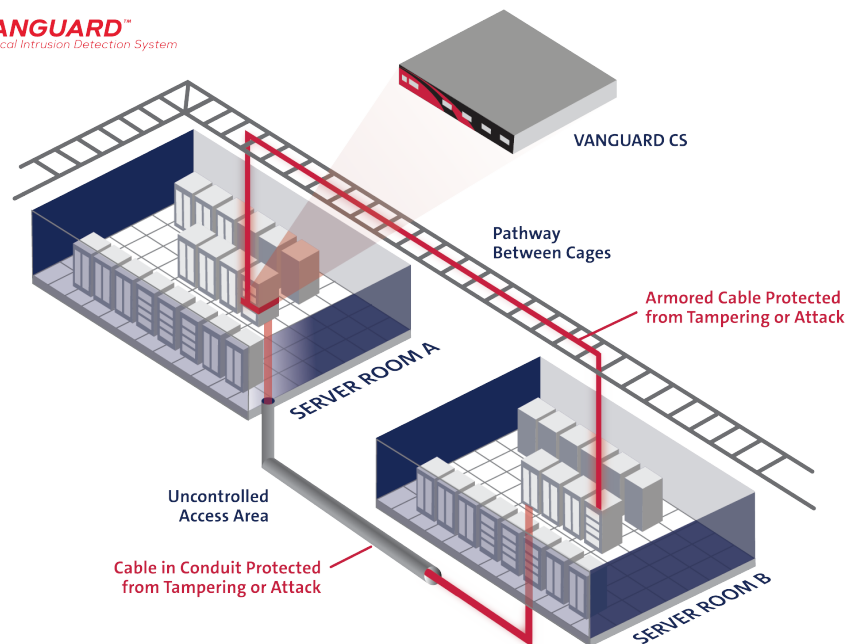
-An existing VANGUARD CS Customer

With Plug-and-Protect™ capability, VANGUARD CS can be rapidly added to existing network infrastructure. As an added advantage, constructing the network with standard indoor armored fiber optic cable infrastructure, and subsequently monitoring those cables with VANGUARD CS, eliminates the need to build costly metallic cable raceway systems, thereby reducing the overall CAPEX and OPEX for an organization, providing instantaneous ROI, and enabling cost-effective scalability across various sites around the globe.

The Results

By leveraging the VANGUARD CS solution as part of a holistic security profile, financial services providers can obtain a complete cyber security solution by protecting their Layer-1 infrastructure, one of their most valuable assets. Benefits include: constant situational awareness and real-time detection of intruders and destruction and a targeted, streamlined response so the threat can be immediately and effectively addressed.

VANGUARD CS closes an open door to cyber security vulnerabilities and prevents critical downtime and devastating costs to the financial organization and their customers.



The VANGUARD CS Network Infrastructure Security Solution Provides:

- ✓ A **centrally managed solution** that provides real-time insight into the security and integrity of network infrastructure.
- ✓ A **streamlined response** to *real* threats, including appropriate first responder notification for increased personnel safety and fast network recovery times.
- ✓ **Rapid and easy deployment** without costly changes to existing network infrastructure and the ability to eliminate EMT conduit.