Access Control for Remote VPN Users

The Need for Enhanced VPN Gateway Security

One of the most vulnerable network access points in the enterprise is the Virtual Private Network (VPN). External systems that access the network through the VPN gateway are frequently not owned by the enterprise, and the users are often not employees, but guests, contractors or business partners. In most cases, it's unfeasible for the enterprise to ensure that these external systems are running appropriate versions of operating systems, or anti-virus / anti-spyware software, and that they are up-to-date with current patch levels and signature files. This can expose the internal LAN to unacceptable risk from external viruses and other malware.

Protecting corporate assets, such as intellectual property and customer data is always a concern for network security managers. This problem is compounded in many installations by the location of the VPN gateway behind the corporate firewall so that VPN users are typically subjected to less scrutiny than other external systems. Once external users are allowed through the VPN, what access restrictions to sensitive assets can be reasonably applied? An all-or-nothing approach to network access for all external users doesn't make sense, and the usual security policies that can be enforced on internal network systems either don't apply or can't be enforced. What enterprise LAN managers are looking for is a method to cloak sensitive network assets from specific classes of remote VPN users so they can't be accessed, seen, or even probed for.

Solution Highlights:

- Remote endpoint health validation and quarantine
- Identity-based access control of remote users to internal network assets
- Intrusion detection system for threat containment
- Audit log for each user of resources accessed
- High-performance in-line appliance (10GBps)

The Nevis LANenforcer provides all aspects of LAN security for remote VPN users when deployed in proximity to the VPN gateway. Security is provided for external employees as well as remote offices and other unmanaged endpoints such as contractors, guests, and business partners.

The Nevis Networks LANenforcer™ LAN security solution

The Nevis LANenforcer 1048 and 2024 are scalable rack-mounted devices that easily install into any network topology (both shown on top of the LANsight appliance).

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Nevis Networks is a leader in providing LAN security solutions that protect the internal core network from all threats arising from endpoint systems, whether internal or unmanaged external systems. The Nevis LANenforcer appliance forms a four-pronged countermeasure to defend against all categories of network security threats from untrusted systems accessing the internal network:

- **Endpoint validation**: pre-connect and post-connect authentication of the user and system and ensuring the health and compliance of the system's operating environment;

- **Identity-based access control**: ensuring that specified user groups and roles are constrained within the internal network to only specific systems and applications;

- **Threat containment**: going beyond ensuring anti-virus signatures are up to date, Nevis uses state-of-the-art deep packet inspection algorithms, including behavioral, protocol and traffic anomaly detection to protect against new malware attacks (worms, Trojans, bots, etc.);

- **User activity monitoring**: keeping a detailed audit trail of which users accessed which resources and systems for regulatory and compliance purposes.

When deployed in proximity to the VPN gateway, the Nevis LANenforcer defends the internal network from these external users, including validating that their systems comply with the network's system health policy, detecting and halting the spread of malicious malware, and preventing unauthorized system access by inappropriate groups. LANenforcer is easily deployed in-line behind the VPN gateway and provides the industry's only solution that performs the full range of LAN security services at wire-speed (10GBps).

LANenforcer performs the system scan to validate external client end-points, as well acting as another identity-based firewall that screens users from critical resources based on role and group privileges. LANenforcer also performs inline intrusion detection and prevention (IDP) at wire speed based on its proprietary LANsecure™ ASIC, which dramatically raises the performance bar for all other competitive solutions.

A single LANenforcer appliance provides an extremely cost-effective solution because it can easily support up to 3000 users. In the case of a VPN deployment, this would translate into 3000 simultaneous VPN access users, typically enough to accommodate even a large enterprise's needs. Larger installations can be accommodated with multiple LANenforcer appliances.