Cisco Campus Secure for Higher Education Networks—At-A-Glance

Why Deploy Cisco Campus Secure?
The college or university network has become tightly integrated into the core missions of today's educational institutions. But with thousands of users, endpoints, and applications active at any time, campus networks are extremely difficult to protect. Academic IT professionals are constantly challenged to ensure that all devices logging onto the network are secure, and to effectively identify and mitigate network attacks. As campus networks become more complex, tasks such as developing meaningful security strategies from vast amounts of network event data, or effectively monitoring and controlling bandwidth in the face of new applications and usage patterns, have become extremely difficult.

Cisco® Campus Secure for Higher Education Networks provides a comprehensive solution for meeting these challenges, and protecting and optimizing academic networks.

Overcoming Obstacles
Academic networks are complex environments that must serve multiple constituencies. These networks are beset by:

- The inherent openness of higher education networks, which creates an above average need for security
- A large, diverse user base, making it difficult to enforce uniform security policies
- Growing vulnerability to more sophisticated, faster-propagating network attacks
- Inherent complexity, in which a reliance on multiple security devices from multiple vendors makes it difficult to effectively identify and mitigate malicious activity
- Difficulty protecting limited bandwidth resources from file-sharing and gaming applications, as well as network attacks designed to assault high-bandwidth environments

Cisco Campus Secure
Cisco Campus Secure for Higher Education Networks provides a suite of powerful solutions for more effectively securing and optimizing campus networks. Designed to support complex, open academic environments, these solutions allow colleges and universities to gain unprecedented insight into network activity, more tightly control network and bandwidth resources, and more effectively protect against both known and unknown security threats. Cisco Campus Secure for Higher Education Networks encompasses three core solutions:

Cisco NAC Appliance for Education Networks
Cisco NAC Appliance (formerly known as Cisco Clean Access) for Education Networks is a self-contained Network Admissions Control (NAC) solution that automatically detects, isolates, and cleans infected or vulnerable wired and wireless devices that attempt to access the campus network. The solution identifies whether endpoints are compliant with security policies and repairs any vulnerabilities (such as out-of-date antivirus or operating system software) before permitting access to the network.

Cisco Self-Defending Network for Education Networks
With thousands of active IP flows in a college or university network, identifying and mapping an attack—much less correlating, prioritizing, and mitigating one in progress—can be very difficult. Cisco Self-Defending Network for Education consolidates the multiple security services on network devices and employs mutual awareness among those services, allowing more unified, efficient network defense. The key components of the solution are:

- The Cisco Security Monitoring, Analysis, and Response System (MARS) provides comprehensive monitoring and threat mitigation.
- Cisco ASA 5500 Series Adaptive Security Appliances combine intrusion prevention, application security, firewall, network antivirus, and VPN in a single, integrated platform.

Cisco Bandwidth Control for Education Networks
The Cisco Bandwidth Control for Education Networks Solution provides a powerful set of tools to implement and enforce a campus-wide bandwidth control policy. The solution encompasses:

- The Cisco Ultra-C Bandwidth Control System allows the network to identify and control peer-to-peer traffic, applications, and users.
- Cisco IOS® Bandwidth Control Features in some Cisco Catalyst® Series switches include rate-limiting tools that allow institutions to allocate bandwidth by user, by group, or by application.
- The CiscoWorks QoS Policy Manager (QPM) provides centralized, end-to-end quality of service (QoS) policy control and analysis.
- The Cisco Application and Content Networking System (ACNS) uses intelligent software and hardware tools to optimize the delivery of rich media content in bandwidth constrained networks.

Benefits of Cisco Campus Secure
- Improved compliance with security policies by making compliance a basic requirement for access to the network
- Robust security threat detection and mitigation ideally suited for open college and university networks
- Comprehensive reporting and analysis of security events
- Protection against both known and unknown threats via monitoring systems that identify and map malicious behavior, instead of simply searching for known attacks
- Lower total cost of ownership by consolidating multiple security services into a single, manageable platform
- More efficient use of network resources by allowing institutions to identify and limit users and applications that commandeer a disproportionate amount of bandwidth
- Simplified security management for the entire network via a centralized Web-based interface

Why Cisco?
Founded by two Stanford University graduates, Cisco Systems® has maintained strong relationships with the world’s leading institutions. Working with Cisco, colleges and universities can:

- Employ end-to-end security to protect the campus network
- Rely on proven technologies, as well as partnerships with security industry leaders, to build a Self-Defending Network
- Benefit from close collaboration among IP networking and security services, and tight integration with data, voice, video, storage, and wireless infrastructures
- Integrate and expand on security services within deployed Cisco routers, switches, and security appliances to reduce network TCO and deliver a greater return on investment
- Access the highest-rated service and support in the industry
- Realize long-term investment protection through a commitment from Cisco Systems to the Campus Secure program and its component technologies.

For More Information
For more information about Cisco Campus Secure for Higher Education Networks, visit http://www.cisco.com/go/education or contact your local account representative.

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