



iPolicy Networks' Intrusion Prevention Firewall are helping make today's educational institutes and campuses a safer and better place for students to learn, grow and be better prepared for tomorrow.

Case Study

EXECUTIVE SUMMARY

Industry:
Education

Environment:
Nederland ISD is a school district in Southeast Texas consisting of eight campuses and an Administration building. The district has a Windows based routed network with spread spectrum wireless WAN connectivity between each campus.

Key Business Challenge:

- Increase in unauthorized network and web-based gaming by students.
- Proliferation of freeware "kiddie script" attacks like Cain & Able.
- Microsoft Windows 2000 PPTP VPN not secure enough.

Key Business Solution:

- Installed iPolicy's intrusion prevention firewall to protect each campus and the administration building against intrusions and attacks.
- Implemented iPolicy's attack signatures to block gaming traffic, i.e. Quake, Doom, etc.
- Installed iPolicy IPsec VPN to provide truly secure remote access.

Key Business Benefit:
IT group has reclaimed their network.

iPolicy Networks products help Nederland Independent School District secure its network from the inside while future proofing it against tomorrow's attacks today.

Background

There is a little bit of the Netherlands in Southeast Texas. The founding of Nederland, Texas, was a joint effort by the Kansas City Southern Railroad and its land subsidiary, Port Arthur Land Company. The two companies planned in 1897 to found a Dutch colony in Mid-Jefferson County and call it Nederland.

As an integral part of Nederland today, the Nederland Independent School District (ISD) consists of a high school, an alternative education school, 2 middle schools, 4 elementary schools, a modern performing arts center, and state-of-the-art athletic facilities - all within a 3-mile radius. Located in Southeast Texas, Nederland ISD is south of Beaumont, Texas, near the Gulf Coast.

Challenge

At Nederland ISD, the internal campus network is interconnected via a wireless network which is linked to the Internet through an access gateway. All the critical servers (email, web, VPN and Anti-Virus) are in the administration building and hold critical data such as student and financial records. More than 5,000 students in the 8 Nederland ISD campuses have access to the network. Security in the past was provided by building perimeter defenses using a conventional firewall and a web content filter with traditional access control lists on the exterior routers. The internal security mechanisms consisted of standard Microsoft Windows authentication methods, username and passwords.

Traversing the district's network are various Microsoft Windows services, Voice over IP, Internet, and email traffic. Additionally, Nederland ISD is also using various client/server applications and providing web-based courseware to students. The Nederland ISD IT staff became aware that students were attempting to breach internal security by using "kiddie scripts" and social engineering. The staff found evidence that students were circumventing internal controls to visit inappropriate web sites and participate in web-based gaming. The IT department was convinced that the internal security of the district's network was superficial and weak, which posed as great a threat as any external attack. Unfortunately, it took a critical internal security breach and an internal security audit to initiate a search for a reliable, cost-effective solution.

"We needed an effective and reliable solution to end the increasing attacks from new generation of freeware attack tools. iPolicy products helped us protect our networks from internal and external threats"

Cynthia Laird, Director of Instructional Technology

Existing Issues

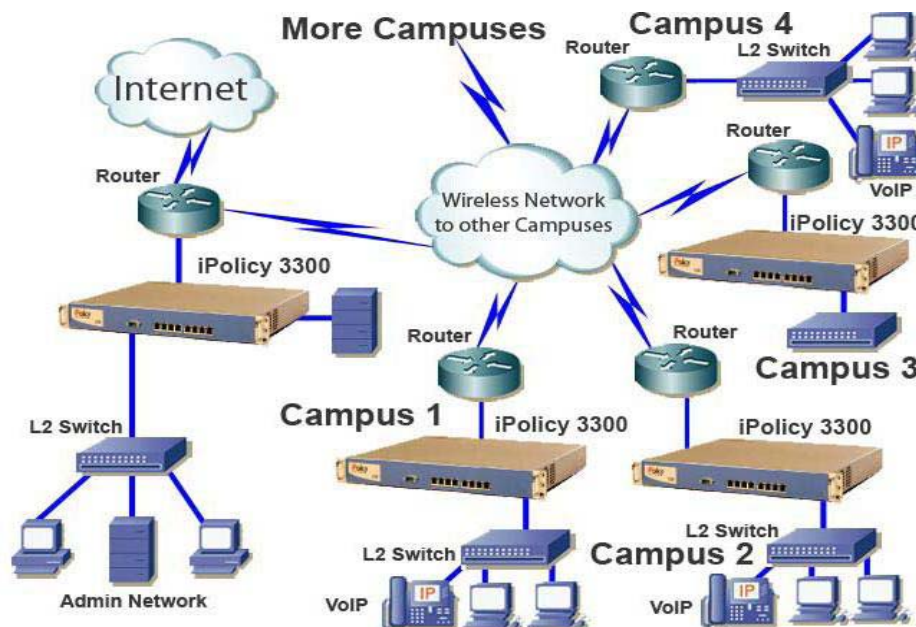
The proliferation of freeware "kiddie script" attacks like Cain & Able, PWDUMP, ProjectR3X, LOphtcrack and more were providing students with readily downloadable canned attacks that easily breached Nederland ISD's internal network security.

Additionally, Microsoft Windows 2000 PPTP VPN was not proving to be secure enough for such an environment. Once the network administrator's password was cracked, students were able to have LAN parties, connect to Nederland ISD's network via the Microsoft PPTP VPN, and browse the network at their leisure.

Emerging Issues

Increased sophistication and easy accessibility of attack tools had become an on going worry for the IT department. Proliferation of more destructive worms, attacks, and viruses on the other hand had always existed and would have caused irreparable damage if fully implemented. The students too were getting smarter and making more persistent attacks everyday.

Figure 1 - Network diagram showing deployment of iPolicy's Intrusion Prevention Firewall 3300



Solution

Nederland ISD installed iPolicy's Intrusion Prevention Firewall 3300 to protect each campus and the administration building against intrusions and attacks. The IT department at Nederland ISD also Implemented iPolicy's attack signatures to block gaming traffic, i.e. Quake, Doom, etc.. And to provide truly secure remote access the IT department installed iPolicy's IPSec VPN solution.

Results

After installing iPolicy Intrusion Prevention Firewall 3300 at each campus and tuning preventive actions to block attacks, worms, and other anomalous traffic, such as DoS and DDoS attacks, the IT department at Nederland ISD has been able to reclaim their network. They have secured their network from the inside.

André Rosales, Nederland ISD's Network Administrator says, "Providing secure, legitimate access to our network resources without compromising internal security is a vital part of our mission. We needed a security product that would protect us now and in the future. We evaluated products from several top industry manufacturers. iPolicy's Intrusion Prevention Firewall 3300 was the most reliable and cost-effective solution that we tested."

Summary

Today the IT department at Nederland ISD has a network that's fully secured from the inside and able to handle any external threat. As the needs of Nederland ISD grow, additional features like enhanced content filtering and anti-virus for email can be implemented on their iPolicy 3300 Intrusion Prevention Firewalls. The iPolicy Intrusion Prevention Firewall 3300 platform is part of the high performance iPolicy 3000 Series and delivers comprehensive security which includes real-time intrusion detection and prevention, firewall, VPN, URL filtering, all in a compact, integrated 1U appliance. The iPolicy 3300 perform at up to 350 Mbps with four gigabit Ethernet copper interfaces pro connectivity options.