

# Roman Catholic School Board of Curaçao

## Protecting students - one Website at a time

Case Study

### Situation

Curaçao is an island in the southern Caribbean Sea, off the Venezuelan coast and is part of the Netherlands Antilles with a land area of 171 square miles. As of January 2008, the Caribbean island had a population of 135,000 with 21,000 school age children enrolled in approximately 60 schools governed by the Roman Catholic School Board.



With so many students ranging from elementary school to high school age, it was critical that the school board use a network security solution that would protect the students from inappropriate Websites as well as ensure that the school board was meeting regulatory compliance mandates.

The previous Web content filtering solution was very easy to by-pass and students were able to access Websites that the IT staff had blocked. "There's not much point in having a Web content filtering solution if the students can easily by-pass it," said Min Seng Wu, head of the IT network infrastructure security department at the Roman Catholic School Board of Curacao.

Mr. Wu worked with CLAdirect, an expert distributor of IP networking solutions in Latin America and the Caribbean, to create a short list of products that would truly protect the 21,000 students from accessing inappropriate Websites. They were using Microsoft ISA Server and Surf Control, but the Microsoft ISA Server and SurfControl solutions offered an extremely expensive solution that required a new server, the purchasing of software and then licensing that equaled \$20 per student. With 21,000 students, the cost was too prohibitive. They also looked at other unified threat management (UTM) appliances but found that the Fortinet solution offered more powerful Web content filtering functionality and categories that would allow Mr. Wu to create individual policies based on the specific needs of classrooms rather than just one school board policy. The Fortinet solution also offered the Roman Catholic School Board complete enterprise level protection without individual licensing fees and the ability to add network security functionality without having to purchase new appliances.

### Solution

With four distinct networks consisting of the different schools, teachers' network, the main building network and the social workers network, there is a lot of traffic traversing the Roman Catholic School Board's network. With the need for a unified security solution that would protect faculty, staff and students, Mr. Wu and his team deployed more than 80 FortiGate-50B appliances throughout the school district.

Deployment:  
FortiGate-50B

Industry:  
Education

Since the FortiGate deployment, all traffic from the four networks must go through the FortiGate appliances. This ensures that all traffic is protected and those accessing the network don't accidentally log onto inappropriate Websites. Mr. Wu and his staff are now confident that his faculty, staff and students are now protected from logging onto Websites that may be harmful or inappropriate.

In addition to the Web content filtering functionality that is being used on the FortiGate appliances, the school board is also using the intrusion prevention (IPS), antivirus and the anti-spam functionalities. The IPS security function is deployed in the traffic path inspecting both incoming and outgoing packets. As a result of Fortinet's integrated approach to network security which includes integrated Web content filtering and intrusion prevention, Mr. Wu can see all Websites being accessed by students and block them effectively— including proxy sites.

### Success

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Since the FortiGate deployment, more than 3,000 computers belonging to the district are now securely protected from unwanted intrusions and network attacks. And, although the students aren't happy that they can't access restricted Websites, Mr. Wu and his team are rest assured that students are protected.

In addition to having a consolidated approach to network security, the FortiGate appliances also allow Mr. Wu and his team to do policy control based on individual classrooms. Not available with the previous security solution, this now enables the IT staff to let the sex education classroom to view specific Websites while the math classrooms aren't allow to see that content. By breaking down the specific requirements and access levels of each classroom, Mr. Wu can give the appropriate people appropriate accesses to relevant material, like blocking MSN with a single click so that student can not go chat during the lessons or just program the blocking policy to allow MSN only during breaks or specific times for specific groups of users.

With the ability to see IPS logs, Mr. Wu can also analyze on a monthly, weekly, daily or hourly basis the sites that are being accessed by students and staff. If he sees that specific sites are getting unusually high traffic, he can find the site and if necessary block it. This avoids students from finding new free proxy sites and to bypass the Web filtering. The free proxy sites are blocked with a single click in the FortiGate appliances.

"The FortiGate appliances are great. Not only have I been able to deploy and forget about them, I now have much more visibility into what's going on in the network because of the FortiGate appliances. I have yet to find a product that can do all that the FortiGate appliances can and so easily and cost efficiently," concluded Mr. Wu.

## About Fortinet

Fortinet is the pioneer and leading provider of ASIC-accelerated unified threat management, or UTM, security systems, which are used by enterprises and service providers to increase their security while reducing total operating costs. Fortinet solutions were built from the ground up to integrate multiple levels of security protection—including firewall, antivirus, intrusion prevention, VPN, spyware prevention and anti-spam -- designed to help customers protect against network and content level threats. Leveraging a custom ASIC and unified interface, Fortinet solutions offer advanced security functionality that scales from remote office to chassis-based solutions with integrated management and reporting. Fortinet solutions have won multiple awards around the world and are the only security products that are certified in six programs by ICSA Labs: (Firewall, Antivirus, IPSec, SSL, Network IPS and Anti-Spam). Fortinet is privately held and based in Sunnyvale, California.

CAS197-0309

