Automated Security and Management Protect and Maintain School Network

AMF-Sec cybersecurity provides cutting-edge endpoint security and protection from insider threats for large vocational high school in Taiwan.

Customer: National Tung Kang Maritime and Fishery Vocational High School

Industry: Education
Location: Taiwan
Established: 1961

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> **Mr. Dai**
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> *MIS Manager at National Tung Kang Maritime and Fishery Vocational High School*

National Tung Kang Maritime and Fishery Vocational High School (NTKMFVHS) is located in Taiwan's PingTung County. A technical secondary school with over 1000 students, it teaches Marine Engineering, Shipping Management, Aquatic Food, Electronics and Aquaculture. It also provides practical courses in Ship Mechanics and Electrical Engineering, Business Informatics, Baking, and Catering Technology. NTKMFVHS has five separate buildings on its campus.

Needed: cybersecurity and network stability

Prior to working with Allied Telesis, NTKMFVHS was experiencing some serious network security issues. Not only were students downloading unauthorized content, including illegal games, but the school had also become a target for malicious network attacks and viruses. These attacks affected the network core and were impossible to resolve in a timely fashion.

It was imperative that the school upgrade its network. Stability and enhanced cybersecurity were at the top of the requirements list, alongside effective network monitoring. Also key to a successful network redesign was improving management. The school wanted the new network to provide simple, unified management with autonomous operation and maintenance.

Why Allied Telesis?

After careful research looking at a number of network vendors including Cisco and Fortinet, the school decided on an Allied Telesis AMF Security (AMF-Sec) solution, alongside Allied Telesis advanced network automation and management tools.

AMF-Sec was developed by Allied Telesis to allow Enterprises to easily protect the LAN from internal security threats. AMF-Sec was the ideal solution for NTKMFVHS, and also the most cost-effective—the school needed only to replace their core switch and then AMF-Sec would work with their existing firewall.

Further selling points of the Allied Telesis solution for NTKMFVHS: Allied Telesis Autonomous Management Framework™ (AMF) to automate many day-to-day network administration tasks, alongside Vista Manager™ EX to centrally manage and monitor the entire school network.

Since AMF-Sec was installed, the school has reported that insider security attacks have reduced by **70-80%** on average.

Powerful security solution automatically blocks threats

Today's firewalls protect networks from external cyberattacks and malware that attempts to enter from the Internet. Allied Telesis AMF-Sec adds to this capability by partnering with the firewall to monitor for any internal network threats, whether malicious or accidental, like a student plugging an infected flash drive into a school computer.

AMF-Sec automatically reacts when the firewall has detected an internal threat by quarantining the suspect device to stop the spread of infection. It can also help protect against data leaks, so the school can rest assured any suspicious behavior or malware within the LAN is dealt with. "With AMF-Sec we have a much faster response time, and we can very easily block internal network threats," says Mr. Liu, a System Integration Manager at NTKMFVHS. In fact, since AMF-Sec was installed, the school has reported that insider security attacks have reduced by 70-80% on average—a result they are extremely pleased with.

An Allied Telesis x550 Series Stackable 10 Gigabit Intelligent Switch provides the new network core with capacity and resiliency coupled with easy management. This feature-rich switch was built with network automation in mind—Vista Manager EX is bundled with AMF to easily meet the school's management requirements. The core is connected via 10G fiber links to the eight GS924MX switches in the school's other buildings and classrooms.

While AMF allows the entire new network to be securely and easily managed as a single virtual device, Vista Manager EX provides simple monitoring with a single-pane-of-glass view of the school's entire network. Any security issues that are detected and dealt with by AMF-Sec are highlighted on the network map in Vista Manager for easy follow-up.

Reduced management costs, safer networking and an improved end-user experience

AMF-Sec allows the school's new network to dynamically respond to network access attempts and security threats, dramatically reducing administration time and cost. Says Mr. Liu, "We needed to be able to understand and respond to our network's operational status in real-time—we got that and more, with AMF-Sec."

Thanks to Vista Manager, the school now enjoys easy visual monitoring and intuitive management of its network, covering all 5 buildings and all network devices. "Vista Manager provides stable operation across all our campus buildings," says Mr. Dai, MIS Manager at NTKMFVHS. Actionable reporting in Vista Manager from AMF-Sec enables proactive security management, as well as simplified fault-finding. Powerful automation tools enable plug-and-play network management, reduced administration overhead, and dynamically optimized performance for the best possible user experience for staff and students.

AMF has reduced the school's network operating costs by adding intelligence and automation. Automated services include firmware upgrades, backup, recovery and zero-touch provisioning, and new devices simply appear in Vista Manager EX. "AMF gives us extremely fast fault isolation with zero-touch recovery," says Mr. Yin, a System Integration Manager at the school.

The school is more than satisfied with the new network and with Allied Telesis products and solutions. "Before, during and after the installation, Allied Telesis staff provided help, training, and support to ensure the results we wanted," says Mr. Dai. "The new network automatically protects us from internal and external cyberattacks and has fully secured our school. We are very happy."

About Allied Telesis

For over 30 years, Allied Telesis has been delivering reliable, intelligent connectivity for everything from enterprise organizations to complex, critical infrastructure projects around the globe.

In a world moving toward Smart Cities and the Internet of Things, networks must evolve rapidly to meet new challenges. Allied Telesis smart technologies, such as Allied Telesis Autonomous Management Framework™ (AMF) and Enterprise SDN, ensure that network evolution can keep pace, and deliver efficient and secure solutions for people, organizations, and "things"—both now and into the future.

Allied Telesis is recognized for innovating the way in which services and applications are delivered and managed, resulting in increased value and lower operating costs.
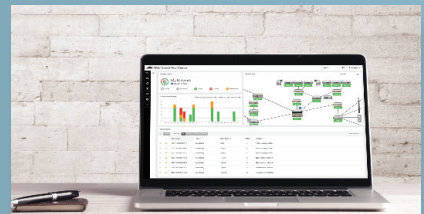
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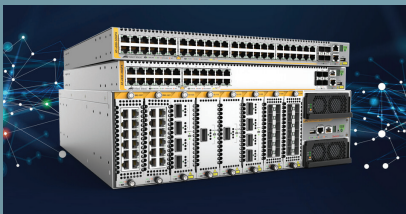
Virtual Chassis Stacking (VCStack)

Autonomous Management Framework (AMF)

Vista Manager EX

Allied Telesis™