Large Inter-School Network Shares Information and Supports Disaster Recovery

The Gifu Prefectural Board of Education, in Japan, gets a cutting-edge solution featuring AMF and AWC

Customer

Gifu Prefectural Board of Education (BoE)

Industry: Education
Location: Gifu-shi, Gifu,

The executive body for educational administration in Japan's Gifu Prefecture, the Board consists of a superintendent and five board members. It has an Administrative Office which includes the head office and six branch offices.

" Network monitoring was insufficient. Deciphering details of network failures was at times impossible, unless we were contacted by the actual school, and this led to delays in response and recovery.

Mr. Toshitatsu Emi, Management Chief, Educational Infrastructure Management Team, Educational Finance Section, Gifu Prefectural Board of Education Administrative Office

Challenge

Connecting all the schools in Gifu Prefecture

The Gifu Prefectural BoE has a long-held focus on bringing education into the digital age, and in 2002 constructed the "Interschool Sogo Net" (ISN) in 2002. Meaning "interschool integrated network" in English, the ISN is a network that connects all of Gifu Prefecture's schools, universities and other education institutions, using the Gifu Information Superhighway optical fiber network. The ISN aids lessons, research and other activities by sharing information, and is an essential piece of educational IT infrastructure which supports the secure and timely execution of administrative duties.

The ISN network had undergone several updates since the original installation, but was still displaying a number of age-related security and operational issues. With data protection becoming increasingly important, the network could no longer guarantee adequate security. Other issues included insufficient network monitoring, and slow issue resolution.

It was time for an overhaul. A replacement of the ISN was timed to coincide with its scheduled 2016 renewal. As well as replacing wired and wireless network hardware, the Board decided to install a new network authentication system, and to use support services to monitor and manage the new network. This would ensure a well-managed and secure digital environment.

The Board chose Allied Telesis to provide its new large-scale network, which would cover 87 locations—including 82 high schools, special-needs schools, three branch offices, the prefecture's Integrated Education Center, and a data center.

Solution

Constructing a highly reliable network

Allied Telesis switches and wireless Access Points (APs) provide a comprehensive new network. A powerful feature set simplifies management, and provides high availability for always-on access to online resources.

Allied Telesis x930 Series Gigabit Layer 3 Stackable Switches provide a powerful network core, and are connected to x510 Series Gigabit distribution switches, and x210 Series edge switches at each school.

Allied Telesis TQ4400 and TQ3400 wireless APs are used primarily in the staff rooms at each school, providing staff with easy access to digital information from any connected device. TQ4400e outdoor wireless APs connect school sports halls to the network, providing online access to support learning and for emergency situations.

> " We asked Allied Telesis to adjust the upgrade schedule so that it would affect school duties as little as possible. Network replacements are usually accompanied by temporary stoppages, but this replacement was managed with only a half-day total network shutdown at each school, which was a great help to us.

Mr. Kazuhira Iwaguchi, Management Chief, Educational Infrastructure Management Team, Educational Finance Section, Gifu Prefectural Board of Education Administrative Office

> " We now live in the age where networks are being used proactively, both in day-to-day school, business and educational activities, and the importance of online connectivity is increasing more than ever. We are very satisfied with every part of our new Allied Telesis network.

Mr. Masahiro Kato, Deputy Director; and Manager of the Educational Infrastructure Management Team, Educational Finance Section, Gifu Prefectural Board of Education Administrative Office

"Wireless access in the sports halls allows tablets to be used in physical education lessons. These halls also function as emergency evacuation shelters, so the outdoor APs were a necessity" said Mr. Masahiro Kato of the Educational Infrastructure Management Team.

Unified management

Gifu Prefecture's individual offices and schools are now all under central control, thanks to Allied Telesis Autonomous Management Framework™ (AMF) managing the switches, and Allied Telesis Autonomous Wireless Control (AWC) managing the wireless APs.

AMF provides centralized management of the entire network, as well as automation that simplifies day-to-day administration. Intelligent software reacts to changes within the network and automatically changes the topology. Network switches are automatically backed up, and can be recovered with zero-touch; while new devices can be added to the network with plug-and-play simplicity.

The AMF Master is deployed in the data center as a virtual device, using AMF Cloud to provide centralized management of this large distributed network.

AWC provides management of all wireless APs, and enables automated optimization to minimize coverage gaps and reduce interference. This ensures ultimate performance for wireless users from all parts of the network.

Allied Telesis Vista Manager EX provides a single-pane-of-glass graphical interface for the AMF and AWC wired and wireless network, so all devices can be easily monitored and managed, and any issues quickly found and resolved.

Installation and network device replacement was carried out sequentially to avoid disruption, and was completed at the end of 2016.

Success

Gifu Prefecture BoE now has seamless and secure network access, with staff and visitors able to easily access online resources and applications. The network is stable and provides prompt recovery should a failure occur. The cost-effective new solution has met all of the Board's requirements, and is prepared for the future adoption of any new technologies.

IT staff now enjoy a highly-reliable network, featuring automated management with AMF. AWC ensures high-performing wireless connectivity, while Vista Manager EX provides a window into the network, with a centralized view of all wired and wireless devices, and an overview of network health and performance.

Ongoing support

Gifu Prefecture BoE has adopted Allied Telesis Net.Monitor™. More than simple support, Net.Monitor provides a comprehensive solution with full monitoring and management. The Board can concentrate on its core business, while Allied Telesis applies years of knowledge and experience to manage their network.

Net.Monitor provides peace of mind, with 24-hour remote monitoring and early-stage failure detection, 365 days a year.

Allied Telesis will continue to provide proactive ongoing support for the new Gifu Prefectural BoE, network, and all its future IT infrastructure projects.

Allied Telesis™   NETWORK SMARTER