



Lower TCO and Reduced Complexity with New Streamlined Campus Network

Kansai University, in Japan, gains efficiency and integrated network management with an Allied Telesis Management Framework™ (AMF) solution.

Summary

Kansai University

Industry: Education
 Location: Suita City, Osaka, Japan
 Established: 1886

Challenge

The school wanted to ease its network management costs and reduce the man-hours required to maintain it. The network needed improved user authentication, to ensure a secure and safe environment for staff and students.

Solution

Allied Telesis provided a powerful solution, which incorporates SwitchBlade® and xSeries switches, and features centralized and automated network management provided by Allied Telesis Management Framework™ (AMF).

Success

By reducing both the complexity of the network, and the level of effort required to maintain it, AMF now facilitates integrated network management, and lowers the school's network operating expenses.

Challenge

Kansai University offers a comprehensive and complete education from kindergarten right through to university. The school has over 35,000 students. There are three senior high schools, three junior high schools, an elementary school and a kindergarten, as well as a university with 13 faculties, 15 graduate school courses, and special courses for students from abroad.

The school has numerous sites: Senriyama Campus, Takatsuki Campus, Takatsuki Muse Campus, and Sakai Campus. A new campus will open in Umeda, Osaka, in 2016.

Kansai University regularly reviews and updates its campus networks. In 2014, after four years, it was time to check the performance of the Takatsuki Campus, which houses the school's Faculty of Informatics and the Graduate School of Informatics. These classes give students the opportunity to study information media from various perspectives, including information science, computer science, management science, and behavioral and communication theories.

IT staff found several problems with the existing Takatsuki network:

- ▶ It did not allow centralized or efficient operational management, including monitoring and coping with system failures.
- ▶ It did not have integrated user authentication. This is essential for security today, due to ever-increasing wireless connectivity, and more and more people using their own devices on the network.
- ▶ It did not meet the necessary levels of speed, reliability or cost effectiveness.

Mr. Kazuhiro Sakakibara, from the Management and Administrative System Division at Kansai University, said, "We needed effective user authentication. In order to secure the network and provide access control, we required port-based user authentication, MAC address authentication, and web authentication for guests."

Solution

Kansai University worked with Nippon Telegraph and Telephone West Corporation (NTT West), who proposed an Allied Telesis network solution.

The new network features a number of Allied Telesis advanced products. A SwitchBlade x8100 Series chassis switch provides the network core, with Allied Telesis x610 Series switches for aggregation, and x210 Series intelligent edge switches. AMF provides centralized management, with the SwitchBlade x8100 core chassis operating as the AMF Master.

“Proposals from other companies were inferior in terms of integrated management. We decided to adopt AMF after comprehensively evaluating its ease of management, and seeing the simplicity it offers for replacing or reconfiguring our network devices.”

Mr. Kazuhiko Nishiwaki
Management and Administrative System Division of the
Bureau of Research Information at Kansai University

“We were very impressed by the work Allied Telesis did and the support they gave us. The upgrade was very quick, and their staff very cool-headed. If we face problems in the future, I expect that the company will calmly find solutions and take action.”

Mr. Tsuyoshi Kawabe
Management and Administrative System Division of the
Bureau of Research Information at Kansai University

Based on Software-Defined Networking (SDN) principles, AMF is an embedded technology native to Allied Telesis switches that delivers real and immediate value to businesses:

- ▶ Unified network management from any device across the network
- ▶ Network automation to simplify and automate tasks across the network
- ▶ Automatic backup to the master of all network devices
- ▶ Auto-provisioning of new and replacement devices added to the network
- ▶ Single command firmware upgrade of the entire network
- ▶ Operation across the Internet to support multi-location networks

With this combination of robust features, AMF lowers network operating expenses by reducing network complexity and the level of effort required to maintain the network.

The Allied Telesis switches also support tri-authentication for complete network access control: port based 802.1x authentication checks the credentials of users logging in, MAC address authentication supports devices without an 802.1x supplicant, and web authentication allows network guests to log in. This powerful combination ensures a secure online environment.

Success

There were strict time constraints on the new network installation, since the upgrade had to be performed during the school’s summer vacation period. Allied Telesis worked within the deadline, and the new network was ready when staff and students returned.

Since its installation, the new Allied Telesis network has performed very well, and has met all of the school’s expectations in terms of reliability and usability.

As expected, AMF performed a significant role in the success of the project, by facilitating integrated and automated network management.

Mr. Nishiwaki rates AMF very highly. He said, “We have already used AMF to centrally manage user authentication on the switches. It allows us to carry out configuration updates on any switch, or all switches at once, which is very effective for reducing our management man-hours. We have not yet added any new switches, but could very easily add or replace units, with zero-touch installation. AMF gives us efficiency—both now and well into the future.”

Future plans

Future plans for Kansai University include a planned network upgrade for its Senriyama Campus in 2017. With the increase of wireless connectivity, and growing use of Bring Your Own Device (BYOD), the school will need a method for the integrated operation and management of its complete wired and wireless network.

Allied Telesis will provide the unified network management capabilities to solve these challenges in cooperation with the school, and will continue to support its network to achieve even greater usability and operational efficiency.



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C618-18054-00 RevB