

**Kushiro City Hospital, Japan, selects Allied Telesis to provide a powerful controlled access network in a medical environment.**



釧路市医師会病院



"The major reason for selecting Allied Telesis for the network upgrade was their proven experience in the market. The SwitchBlade® 4004 met all of the requirements for the core of the new LAN, such as the ability to forward high capacity graphical content, high-reliability and a comprehensive feature set."



**Mr. Horiguchi**  
System Sales Manager  
San Esu Management Systems (SEMS)

### The Solution

A SwitchBlade® 4004 switch was introduced at the core of the network. A multi-layer modular switch, SwitchBlade® met the primary requirements of the project due to its high reliability and flexible scalability, and its ability to incorporate the potential future expansion requirements.

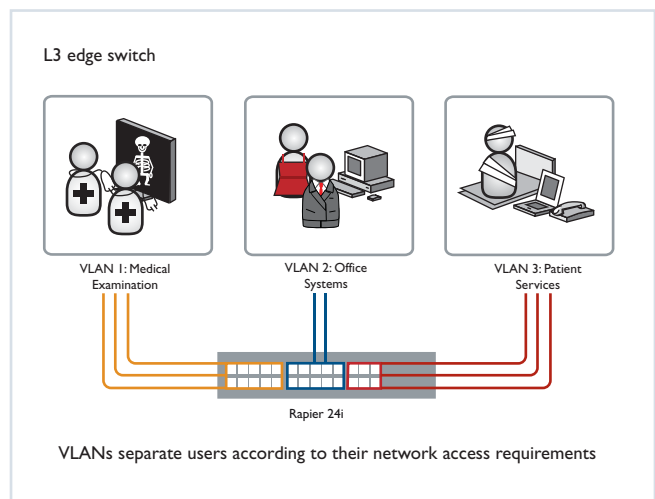


SwitchBlade® 4004

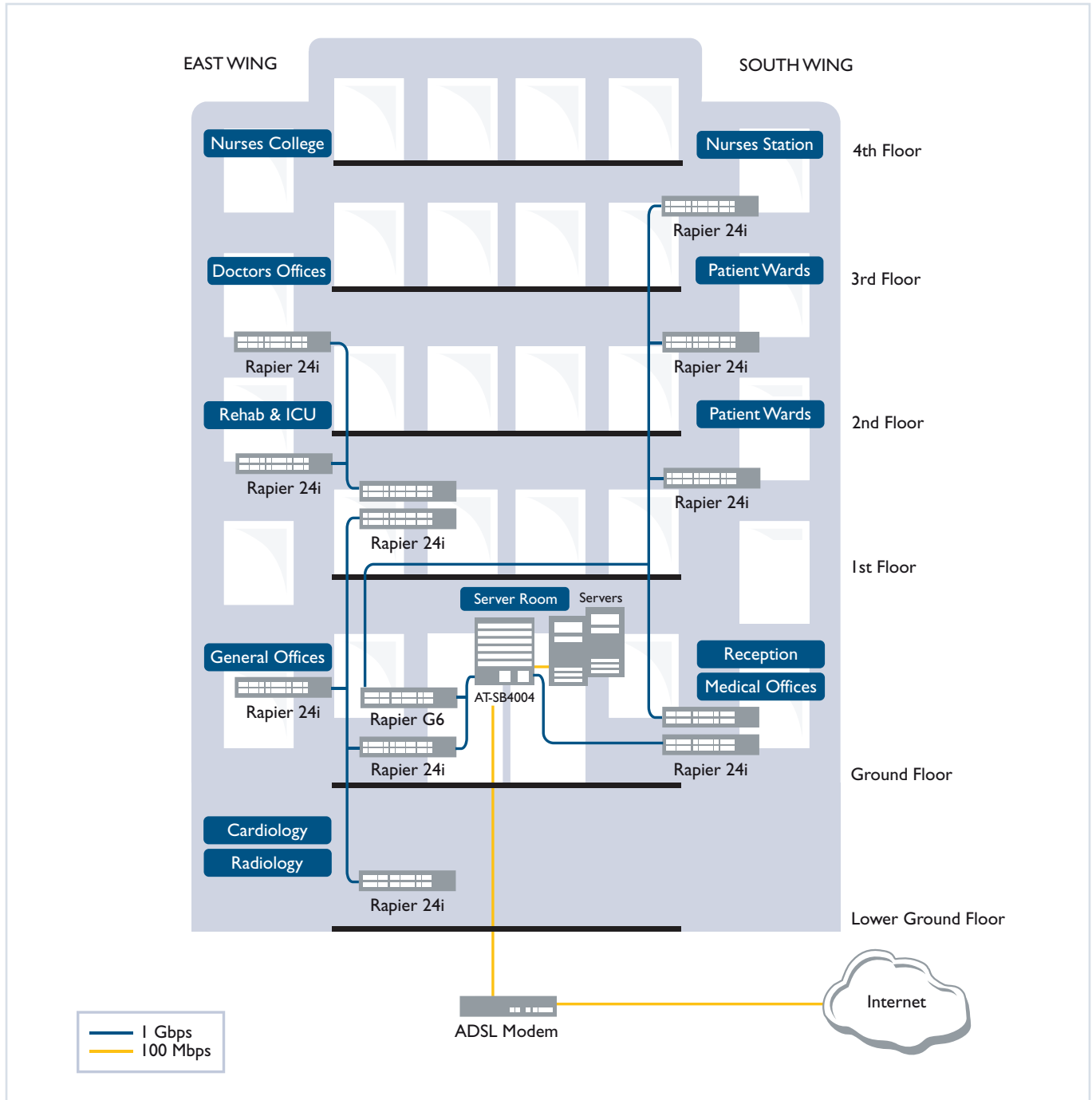
The SwitchBlade® 4004 provides power and control redundancy, and allows a variety of linecards for flexibility of use. The hospital adopted two switching control cards, and the following three linecards for their connectivity needs:

- AT-SB4442 - providing 24 (SFP) Gigabit copper or fibre ports
- AT-SB4352 - providing 32 100Base-FX fibre ports
- AT-SB4311 - providing 48 10/100Base-TX copper ports

Rapier 24i (Centercom 8724XL) switches were introduced at the edge to provide advanced Layer 3 switching features. These advanced features support multicasting applications such as streaming video, allowing for live video conferencing between medical specialists and schools, and offer tiered security providing controlled network access. The Rapier 24i switches also create separate VLANs for different groups, such as medical examination, office work, and patients. This means controlled network access for each group, for example the patient VLAN allows bedside internet services for patients.



## The Solution



Kushiro City Medical Hospital Network



## Benefits of the new solution

**Increased coverage:** Kushiro Hospital has expanded both in physical size and number of employees. Gigabit fibre links between the core and edge switches provide the bandwidth to allow the various different facilities to communicate across a single network. Medical specialists, surgeons, doctors, nurses, and allied medical hospitals and professionals are all assured of full access to network resources.

**Enhanced functionality:** The LAN implementation allows users the convergence of voice, video, and data. Hospital staff can now utilize the network for information sharing both efficiently and effectively, for example, graphical content can be referred directly from examination rooms, and clinical laboratory centre examination outcomes can be easily checked on a real-time basis. An ordering system was introduced, as was an electronic chart system. These capabilities, and more, mean the hospital now has a highly usable and functional network.

*"With the new network infrastructure we have enormous potential for future applications"*

**Mr. Matsumoto,**  
a general manager of  
Kushiro-City Medical Hospital.



**Improved efficiency:** The ability for staff to communicate in real-time has proven a huge time saver; and has reduced the need for manual, paper based systems, resulting in an increase of staff efficiency and productivity, and therefore an improved quality of patient care

**Reliability:** In the past the hospital had a lot of reliability issues with their LAN, for example a single fault was capable of bringing down the network. Since the new LAN was implemented using the SwitchBlade®, no such problems have arisen:

*"Patients used to have to wait for their accounts, due to unavailability of the accounting system caused by system troubles and/ or poor bandwidth. I haven't heard any complaints since the new LAN was introduced."*

Mr. Matsumoto, a general manager of  
Kushiro-City Medical Hospital

**Educational resources:** Staff now have greater access to educational resources, both from the Internet and from the Clinical Laboratory Centre, which provides advanced online services across the Intranet. Furthermore these resources consist of the latest information in digital form.

**Manageability:** Advanced network monitoring allows accurate and up-to-date statistics to be gathered about network resources, ensuring a pro-active approach to network infrastructure maintenance and support.

**Segmentation:** Segmentation of the network has been achieved through the use of Virtual LANs (VLANs). The main advantage of using VLANs is that users can be grouped together according to their networking needs, regardless of their actual physical locations. Subdividing the LAN into smaller segments, or VLANs, increases overall reliability, security, and performance, and makes the network easier to maintain. The hospital now easily maintains separate VLANs for different areas, such as medical examination, office work, and patients.

**Futureproofing:** At the core, the SwitchBlade® 4004 provides a solution that can scale as the hospital changes. It incorporates feature rich, resilient switching technology. The availability of a 10GbE linecard means future high bandwidth applications will be easily handled.

*"We will be able to apply 10GbE in the future, if high-speed and/or high-capacity needs arise", Mr. Horiguchi, System Sales Manger of San Esu Management Systems (SEMS).*

## Ongoing Partnership

The new network allows Kushiro Hospital to stay at the forefront of their profession and keep abreast of technological advances. The hospital's collaborative partnership with other institutions is now easily maintained thanks to high quality bilateral communication capabilities, and patient information is effectively stored and retrieved when necessary.

Allied Telesis Japan are providing ongoing support for the new network infrastructure, adding value and security to the solution, and look forward to working in ongoing partnership with Kushiro Hospital.

## About Allied Telesis Inc.

Allied Telesis is part of the Allied Telesis Group. Founded in 1987, the company is a global provider of secure Ethernet/IP access solutions and an industry leader in the deployment of IP Triple Play networks over copper and fiber access infrastructure. Our POTS-to-10G iMAP integrated Multiservice Access Platform and iMG intelligent Multiservice Gateways, in conjunction with advanced switching, routing and WDM-based transport solutions, enable public and private network operators and service providers of all sizes to deploy scalable, carrier-grade networks for the cost-effective delivery of packet-based voice, video and data services. Visit us online at [www.alliedtelesis.com](http://www.alliedtelesis.com).

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