Panasonic gets Comprehensive, High-Value New Integrated Network Solution

Panasonic New Zealand Limited, located in Auckland, select an Allied Telesis network solution for their new premises.

Panasonic choose Allied Telesis

Panasonic Corporation

The Panasonic Corporation, known as the Matsushita Group until October 2008, traces its origins back to 1918 when Japanese industrialist Konosuke Matsushita started a small business manufacturing home electrical products in Osaka, Japan. It is now one of the largest electronic product manufacturers in the world.

Panasonic in New Zealand

As a global manufacturer, Panasonic has a presence in most countries around the world.

In New Zealand, Panasonic's head office is located in Auckland, in the North Island. There are also service centres throughout the country.

For more information about Panasonic, both in New Zealand and globally, go to http://www.panasonic.co.nz/about-panasonic-nz/nz-and-global-history/

In 2012, Panasonic's New Zealand branch relocated to a new building. This shift created the ideal opportunity to upgrade their network.

Prior to the move, Panasonic were using an aging network infrastructure that had been in place for many years. They needed to upgrade their network to support a number of applications, including enterprise data, wireless, IP telephony, video-conferencing, lighting control and warehouse logistics.

Panasonic chose an Allied Telesis advanced solution to provide the New Zealand office with the high performing network it needs.

Allied Telesis were chosen thanks to a number of factors:
- Our ability to meet all of Panasonic's technological requirements.
- We have knowledgeable and easily accessible support staff in New Zealand. Panasonic placed a high value on access to technical support staff, particularly the fact that Allied Telesis made staff available on site during the installation to mitigate risk.
- We already had an established working relationship with Panasonic in many regions and countries around the world, using Panasonic IP cameras in advanced video surveillance networks.
- We have a strong local presence in the New Zealand market, and had received a large amount of positive feedback.
- Our products are extremely cost effective to buy and to run.

The network requirements

Panasonic had a number of important requirements for the new solution:

Increased availability

Panasonic wanted to achieve increased network availability, to ensure staff always have access to online resources and applications, as well as up-to-the-moment warehouse logistics information.

Improved security

Panasonic are a large, high profile organization, and as such, security is critical. To maximize their network security, they planned to implement:

- Virtual separation and distribution of the network to simplify management.
- A firewall to protect the network from outside influence.
- Network Access Control (NAC) to manage and secure online access for both staff and guests.

A unified solution

They needed a unified network solution to support multiple applications including:

- Enterprise data
- Wireless
- IP Telephony
- Video-conferencing
- Lighting control
- Warehouse logistics handheld devices

High performance

They required improved network performance to handle the convergence of the many applications that would share the new network infrastructure. A high-speed backbone was planned to handle the increase in network traffic.
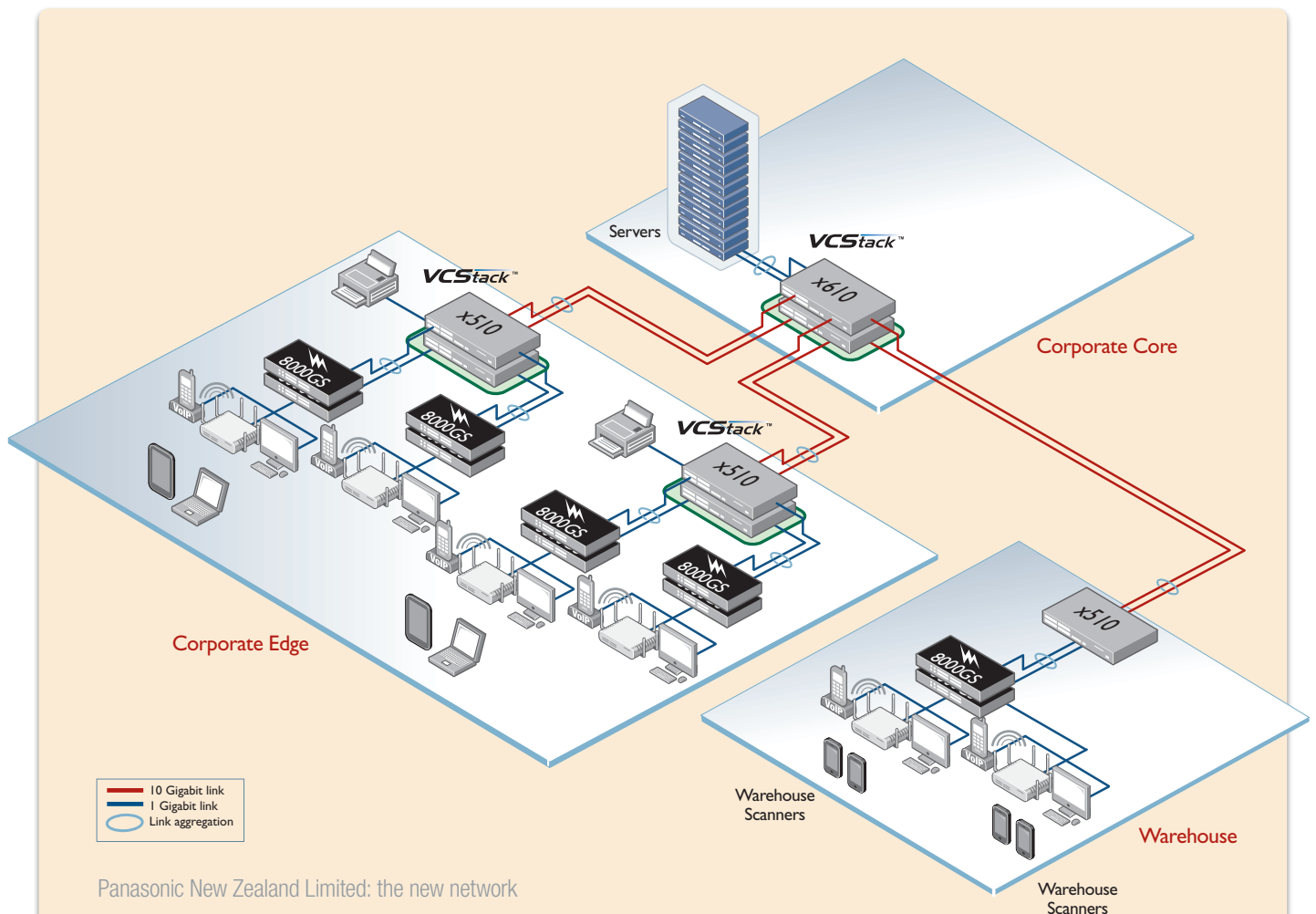
Ongoing partnership

Panasonic were looking for a vendor who would partner with them to implement their new network, and provide strong local support during the install and for any future requirements.

Challenges

Panasonic faced several challenges when designing their new network:

- Their building is large and required fiber optic cabling between different sections of the business to support a single cohesive network design.
- Soundproofing in the company's meeting rooms attenuated the wireless signal.
- As a large high profile organization, security of online resources was imperative.

The solution

Servers

VCStack™
x610

Corporate Core

VCStack™
x510

8000GS

VCStack™
x510

8000GS

8000GS

8000GS

Corporate Edge

VoIP

VoIP

x510

8000GS

VoIP

Warehouse Scanners

Warehouse

Warehouse Scanners

	10 Gigabit link
	1 Gigabit link
	Link aggregation

Panasonic New Zealand Limited: the new network

Two Allied Telesis x610 Series switches make up the network core, and are configured as a Virtual Chassis Stack (VCStack™) which provides both device and link redundancy. Link aggregation of fiber cabling connects the network core to the servers and distribution switches, as well as to the network security appliance which provides secure firewall functionality for all external traffic. The network security appliance connects Panasonic to the Internet and their corporate WAN, via separate routers.

Network distribution comprises pairs of x510 Series switches, which are also connected as VCStacks for ultimate resiliency. These are connected to the edge AT-8000GS/

POE Series switches, which again are stacked in pairs, and provide Power over Ethernet (PoE) to power the Wireless Access Points (WAPs) and Voice over IP (VoIP) phones.

The AT-TQ2450 wireless solution is used to deliver wireless coverage throughout the office and warehouse areas. Six Allied Telesis AT-TQ2450 access points have been used in the warehouse, and four are in the office area, which provides excellent coverage and negates reduced signal strength in the sound-proofed meeting rooms. An Allied Telesis AT-UWC wireless controller centrally manages the access points.

Benefits of the new network

Panasonic's key requirements are all met in the new Allied Telesis solution:

Increased availability

The Allied Telesis x610 Series switches in the network core are connected together as a VCStack.

VCStack makes networking simple. It allows connection of multiple switches via high-speed stacking links. This aggregates the switches, which then appear as a single switch, or "virtual chassis." The virtual chassis can be configured and managed as a single device greatly simplifying network management and administration tasks. Fast failover ensures that any failure of a device or link does not affect access to online resources and applications.

As the x510 Series distribution switches are paired as VCStacks, and the AT-8000GS edge switches are also stacked, the new network topology has greatly increased redundancy and reliability, built right in. In partnership with link aggregation, stacking throughout the network provides a topology with no single point of failure.

This high availability solution provides Panasonic with guaranteed access to information when it is required.

Improved security

Panasonic now have a network which has been separated into secure segments using VLANs. This has reduced unnecessary traffic on the network, and provides separate virtual networks for network management, lighting control, voice traffic, printing, guest access and more.

All staff, guests and devices wishing to connect to the network must be authenticated via a centralized database prior to receiving access. This Network Acces Control (NAC) ensures only known people and devices can access corporate resources, and users or devices that fail authentication can either be offered remediation or have their network access limited.

The network security appliance provides firewalling to filter all external network traffic as it enters the building, so Panasonic can be assured of secure Internet and corporate WAN connectivity.

> "Allied Telesis made the whole process easy by taking complete ownership and researching our requirements. Panasonic New Zealand Limited now has a new, well structured, well documented LAN infrastructure that should see us through to 2020."
>
> Ian Parker, IT Manager, Panasonic New Zealand Limited

A unified solution

The new network is now powerful enough to support the convergence of the many applications that Panasonic run company wide. With network data, wireless access, IP telephony, video conferencing, lighting control and warehouse logistics information all traversing this unified network, Panasonic have a truly integrated solution capable of supporting all of these applications now, as well as any new applications they may add in the future.

High performance

A 10 Gigabit backbone between the core and distribution switches supports this modern converged network environment. Gigabit to the desktop provides seamless network access for all of today's high bandwidth applications, and makes real-time logistics information from the warehouse available.

Ongoing partnership

Panasonic has an established on-going relationship with Allied Telesis, and our technical staff were very hands-on in the design and implementation of the new network. This local knowledge and expertise allowed a smooth rollout in the new building, and has provided peace of mind and confidence in future support.

Summary

Panasonic New Zealand Limited now have an integrated new network solution that supports the convergence of the many modern applications they require. With a highly resilient and future-proof design, they are assured of constant and reliable online access, and are ready for the addition of new network resources when required. Allied Telesis were able to supply this comprehensive high-value network as a very cost-effective solution, both in initial outlay and ongoing running costs.

Allied Telesis are pleased to have partnered with an industry leader whose IP camera products were already used on many Allied Telesis advanced video surveillance networks. We look forward to continuing this partnership well into the future.
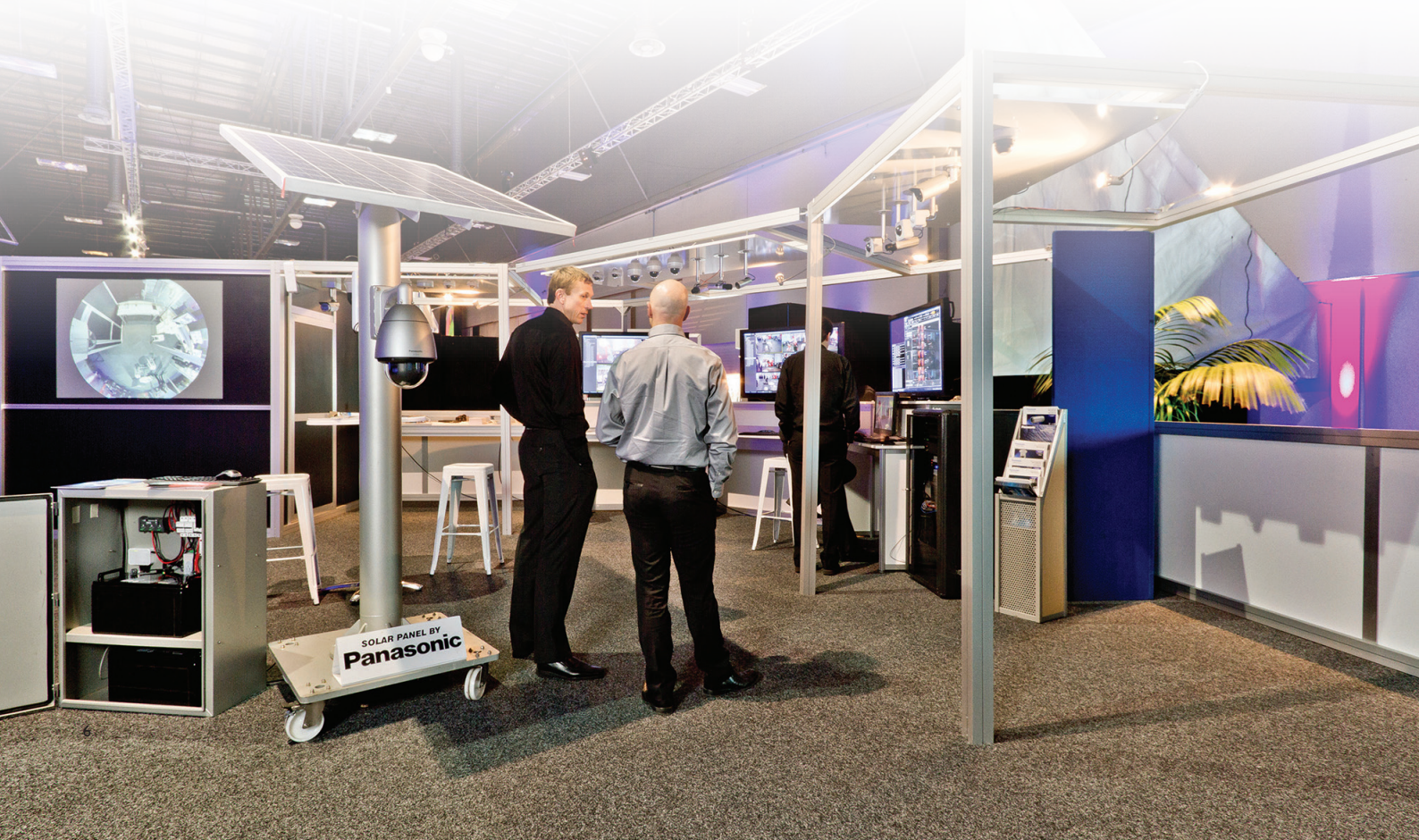
Featured products

AT-x610-48Ts/X

LAYER 3+ NETWORK SWITCHES

The Allied Telesis x610 Series is the high performing and scalable solution for today's networks, providing an extensive range of port-density and uplink-connectivity options.

With a choice of 24-port and 48-port versions and optional 10 Gigabit uplinks, plus the ability to stack up to eight units, the x610 Series can connect anything from a small workgroup to a large business.

AT-UWC-60-APL

HARDWARE-BASED WIRELESS LAN CONTROLLERS

The Allied Telesis AT-UWC-60-APL WLAN Controller is the single point of management for operation, administration, and maintenance of all access points in an Enterprise.

AT-TQ2450

IEEE 802.11N WIRELESS ACCESS POINTS

The Allied Telesis AT-TQ2450 Enterprise-grade access point features two concurrent IEEE 802.11n dual-band radios.

The AT-TQ2450 offers two-spatial-stream Multiple Input and Multiple Output (MIMO) technology and antenna diversity, improving wireless bandwidth, efficiency, and robustness.

The access point operates in either standalone mode or companion mode with a wireless controller, meeting Enterprise business needs.
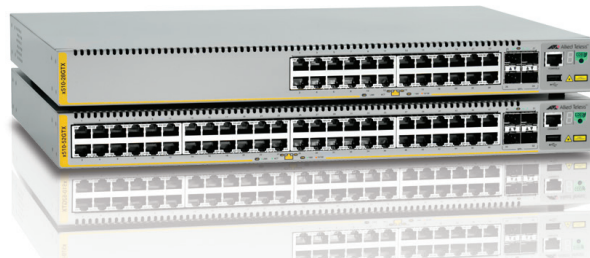
AT-x510 Series

STACKABLE GIGABIT SWITCHES

The Allied Telesis x510 Series of stackable Gigabit switches includes a full range of security and resiliency features, coupled with easy management, making them the ideal choice for network access applications.

Allied Telesis x510 Series switches are a high-performing and feature-rich choice for today's networks. They offer a versatile solution for enterprise applications.
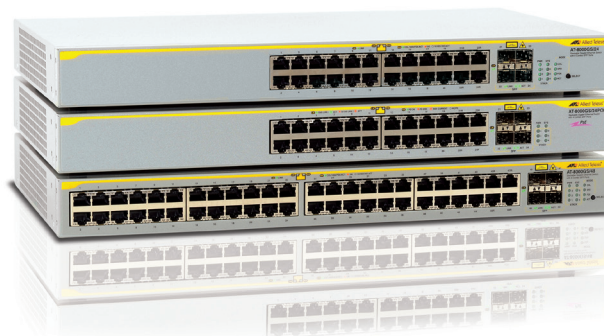
AT-8000GS/24 PoE

LAYER 2 STACKABLE GIGABIT POWER OVER ETHERNET SWITCHES

One of a series of high performance Gigabit Ethernet stackable switches from Allied Telesis, the AT-8000GS/24POE provides high performance Layer 2 switching in an affordable fixed configuration platform combined with Power over Ethernet for edge devices such as IEEE 802.11n access points, IP phones or IP cameras.

About Allied Telesis, Inc.

Founded in 1987, and with offices worldwide, Allied Telesis is a leading provider of networking infrastructure and flexible, interoperable network solutions. The Company provides reliable video, voice and data network solutions to clients in multiple markets including government, healthcare, defense, education, retail, hospitality, and network service providers.

Allied Telesis is committed to innovating the way in which services and applications are delivered and managed, resulting in increased value and lower operating costs.

Visit us online at **alliedtelesis**.com

△▽☰ Allied Telesis™   the **solution** : the **network**