Wellington International Airport Limited – Airport Hotel

Improving guest experience, simplifying operations, and dramatically reducing ICT costs

"A new-build, state-of-the-art hotel development provides the perfect opportunity to move from traditional copper Ethernet LAN to a future-proof, high-performance Passive Optical LAN (POL) to gain real business benefits for the hotel."

Noel Simpson, CEO, Lexel Systems

"While evaluating the POL model to structure the hotel's telecom network, Wellington International Airport determined that the Nokia POL solution, offered by New Zealand ICT solutions provider Lexel Systems, was a perfect fit, offering the hotel a lower cost of operations, flexibility of network architecture, speed to deploy new services and solution stability."

Leanne Gibson, General Manager Facilities, Transport & Technology
Wellington International Airport

Project Overview

Challenge

Wellington International Airport undertook a major development of a 134-room state-of-the-art hotel located at Wellington Airport. The development was the first hotel built at the airport and the first hotel site build in New Zealand's capital in ten years. The customer was looking for innovative service delivery solutions to structure the hotel's guest network, while keeping operational costs low.

Solution

Nokia and ICT solutions partner, Lexel Systems designed and implemented a unique and innovative Passive Optical LAN (POL) solution for Wellington International Airport's new hotel development.

Passive Optical LAN is an industry-leading ultra-broadband fibre technology suitable for all property types, from small boutique hotels to large business hotels, convention centres and integrated entertainment complexes.

Results

Wellington International Airport have a network solution that fits perfectly to their ambition of innovative service delivery, offering the hotel a lower cost of operations, flexibility of network architecture, speed to deploy new services and solution stability.

"This project was very special to us – it was our first hospitality implementation with partner, Lexel Systems in New Zealand. More than that, it was the first new hotel built in Wellington in ten years; so we knew we had to go the extra mile to build something unique. As the only hotel using Nokia Optical LAN equipment in Wellington, I can say that we have achieved that! The proven experience of our solution in the hospitality segment, coupled with Lexel's local presence aligned with the customer's ethos of 'leading the way'."

Belinda Lawrie,
Head of APAC Channel
Sales at Nokia

As technology quickly evolves and the demands for remote working become greater, more and more hotel guests expect a wide range of information, entertainment and communications services to be easily and reliably accessed, where ever they may be and when they need it. At the same time, they demand hotel staff to respond to their needs quickly and efficiently, by leveraging all available services delivered across the hotel network.

Optical LAN technology can support all guest services and hospitality management operations on a single network. Precious staff resources can then be more focused on providing the 'WOW' factor of hospitality, rather than managing the infrastructure network.

"This was a great example of how using new technology can gain real benefits for a customer. Not only did the hotel save money, but they obtained additional business benefits and features over what a traditional approach would have provided." said Noel Simpson, CEO, Lexel Systems.

Between 10-13 Optical Network Terminals (ONT) were grouped together without raising any issues of excessive heat generation. The simplified network architecture offering a smaller physical footprint through high density port allocation not only delivers favourable short term Total Cost of Ownership (TCO) but also an overall long term TCO proposition being it is a more environment friendly model.

Lexel's expert team of Network and Security consultants implemented the solution, with the support of Nokia, on time and budget.

Thanks to the resiliency of the network, since the solution went live in January 2019, there have been very few network alarms, other than those generated through failover testing.

Lexel's network and security consultants are experienced in the design and deployment of POL and GPON solutions across many industries, which backed with Nokia's expertise, provided Wellington International Airport complete assurance of a successful deployment.

Highlights

An innovative design was used to deliver services to guest rooms. Rather than having multiple demarcation points for hotel services within rooms such as plumbing, information and communications technology (ICT) and electrical services, the client created a centralised services hub for each room. The services hubs are located along the hallways of each floor, easily accessible behind unique New Zealand artworks. This created easy access to repair all service-related issues, without entering the room.

The Passive Optical LAN solution is designed to enhance the guest experience, whilst reducing operational costs and simplifying infrastructure management.

Implementation Challenges

"The base building design was initially specified for structured cabling. Adding POL meant that we were constrained within some preset parameters, such as not being able to drop an ONT in every room. This meant we needed to run extensive Ethernet tails from switch cupboards to the hallways outside of guest accommodation rooms. At the time, the high-density Optical Network Terminals were not available. To overcome this, we clustered groups of 4-port Optical Network Terminals (ONT) in centralised locations." said Nick Boag, Enterprise Relationship Manager, Lexel Systems.

To maximise delivery efficiency Lexel staged and tested much of the equipment prior to moving it onsite for the installation. This assisted in delivering the solution as quickly and effectively as possible.

Although there were situational and building challenges, POL is a truly flexible network cabling solution which can pivot quickly and easily.

Why Nokia

Nokia is the world leader in fixed access technologies. We have 20+ years of broadband experience, and our equipment powers some of the most advanced fibre networks in the world. The Nokia Optical LAN solution is designed to enhance the guest experience while reducing operational costs and simplifying infrastructure management.

Passive Optical LAN

Key Operational Features

Optical LAN brings the LAN up to light speed. It uses fibre-optic cabling instead of structured copper cabling and the Gigabit Passive Optical Network (GPON) transmission protocol. GPON is used to deliver commercial and mission critical broadband services to millions of users worldwide. It outperforms copper-based LAN in all the key criteria:

Capacity

GPON delivers 2.5 Gbps downstream and 1.2 Gbps upstream on each fibre so you can converge separate networks, eliminate bottlenecks and deliver gigabit speeds to every user.

Cost

Optical LAN is both cheaper to install and cheaper to run than a traditional LAN.

Security: GPON provides military-grade security and carrier-grade reliability.

Longevity: Fibre is future-proof, robust and scalable, providing value for 50+ years.

Flexibility: Deploy anywhere as fibre supports a smaller bend radius than copper cabling and is resistant to signal and noise interference.

Simplicity

GPON is a mature technology, designed for simplicity and efficiency, easy to understand and manage.

Lexel Systems

Lexel is a New Zealand owned provider of ICT services and solutions to business. We focus on maximising business performance by using industry leading expertise and solutions to streamline IT infrastructure. With over thirty years in the IT business, Lexel is a known and trusted technology solutions partner.

Lexel specialise in providing solution consulting, infrastructure design, implementation, project management, outsourcing, support services and procurement. To deliver this wide range of services, Lexel Systems has partnered with the main technology providers in NZ and have secured the highest level of certifications possible with each of these partners.
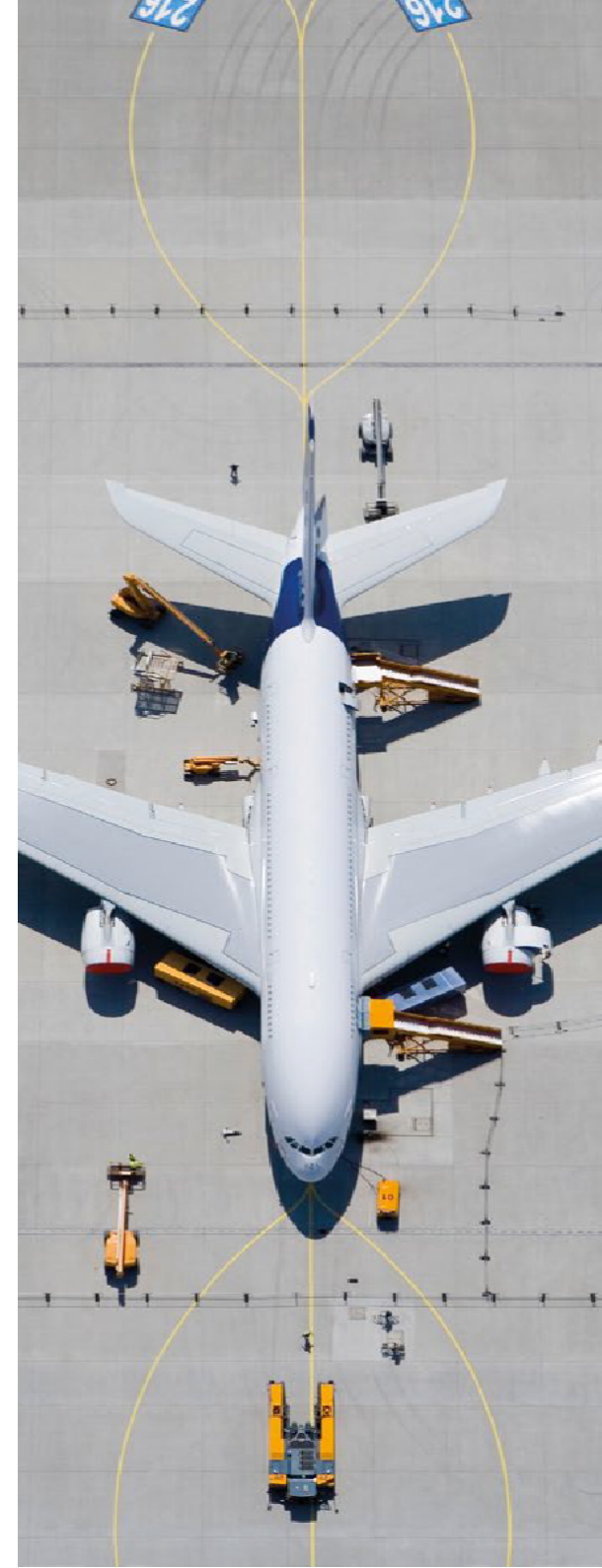
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