

The background image shows the exterior of the Loch Fyne restaurant. The building has a stone facade with large windows and a balcony. A sign above the entrance reads "WHICH DAILY DIE : BUT AS NEW BUDS PUT FOR". Below the sign, there are blue awnings with "Loch Fyne" branding. In the foreground, a group of people are sitting on stone steps. A duck is visible in the water in the lower right. The text "CASE STUDY" is overlaid on the left side of the image.

CASE STUDY

An orange silhouette map of the United Kingdom is positioned to the left of the text.

**UNITED
KINGDOM**



RETAIL

TRANSFORMING CONSUMER EXPERIENCE THROUGH CLOUD-NATIVE, AI-ENABLED AND DATA-CENTRIC NETWORK SERVICES

For consumers and tenants to enjoy the best access to Wi-Fi and digital services, Landsec refreshed the network at 12 shopping centres. Partnering with Aruba and KHIPU Networks, the company adopted secure, unified and AI-enabled cloud-native network management. Landsec now provides seamless roaming and access for customers while developing richer insights on consumer behaviour. The company now aligns network operations across all locations, offering flexible connectivity services to tenants, and enhancing crucial GDPR compliance.



For many retailers, giving consumers a seamless experience online and in-store is a top priority, and expectations from the shopping experience are changing. As shopping breaks away from the boundaries of bricks and mortar, the role of shopping centres has changed too. Consumers are no longer just interested in visiting individual shops, they view the centre as a destination too.

“Whether we’re at home or work, on the bus or out in town, people expect almost continuous connectivity,” says Matthew Brown, Architecture Director at Landsec. “To deliver the best experiences for our customers we need to provide fast and reliable guest Wi-Fi and a more engaging digital experience.”

PROVIDING MORE VALUE TO CONSUMERS

Property developer Landsec owns and manages some of the most iconic shopping centres in the UK, from Bluewater in Kent, St David’s Cardiff and Gunwharf Quays at Portsmouth Harbour. It aims to lead the industry in critical long-term issues – from diversity and community employment, to carbon reduction and climate resilience, aiming to deliver value for its shareholders, great experiences for its customers and positive change for communities.

When its Wi-Fi contract came up for renewal at 12 centres, the company decided to transform its approach to cloud management to give consumers better and consistent access to guest Wi-Fi and offer tenants flexible, short-term connectivity as a service.



REQUIREMENTS

- Improve guest Wi-Fi at shopping centres
- Establish flexible network solution for tenants
- Capture richer metrics on consumer behaviour
- Enhance security to meet compliance regulations

SOLUTION

- High-density indoor and outdoor APs
- Aruba Core, Distribution and Access Switches
- ClearPass Policy Manager and NAC
- Aruba Central cloud-native management platform
- User Experience Insight Sensors (UXI)
- ISP connectors
- Integration with Palo Alto Next Generation Firewall

OUTCOMES

- Transforms shopper experience with better Wi-Fi and roaming
- Supports short-term leases and business flexibility
- Helps retailers promote and personalise marketing campaigns to target audiences
- Future-proofs the business for further intelligent digital innovations

“When we rolled out Wi-Fi five years ago, we didn’t have the same opportunities as we do now. Shopping centres had limited bandwidth and low-quality service because there was simply less demand for it,” explains Brown. “As part of our transformation we wanted to replace the individual networks at each site with a centrally-managed solution to give users a consistent experience across all locations.”

In addition to connecting customers, Landsec wanted to leverage access points to collect and analyse valuable data on consumer behaviour to help drive more personalised marketing campaigns. “With Aruba’s technology and partnership we can adapt to meet changing customer expectations while unlocking the opportunity to



“With Aruba’s technology and partnership we can adapt to meet changing customer expectations while unlocking the opportunity to get smarter with consumer data.”

MATTHEW BROWN

Architecture Director, Landsec

get smarter with consumer data,” comments Brown. “To access our super-fast Wi-Fi, consumers opt-in to data collection from the splash page so we can give them more personalised services in a compliant way.”

BUILDING A FLEXIBLE NETWORK

Landsec partnered with Aruba and KHIPU Networks to deliver a flexible, fully cloud-managed wired and wireless platform across 12 UK shopping centres. Each site has between 20 and 80 internal and external APs. In total, approximately 320 access points have been deployed so far.

The core of the network comprises a pair of Aruba 5406R switches, while some larger sites include an Aruba 3810M distribution switch. The network access and connectivity for the APs is provided by 120 Aruba 2930F switches.

The entire design was provided by KHIPU Networks who also implemented and continues to manage the environment for Landsec. KHIPU Networks also provides and manages the ISP connectors to support a 500MB pipe, routers that feed into Palo Alto Next Generation Fire-

walls and Aruba ClearPass-as-a-Service to ensure secure NAC and network security orchestration.

Through open APIs the Palo Alto Next Generation Firewall and ClearPass have been integrated to keep guest data secure and ensure family-friendly browsing. To monitor the consumer experience, the team deployed Aruba UXI sensors. The entire Wi-Fi solution is managed by KHIPU Networks, as the managed service provider, via a single, user-friendly interface in Aruba Central.

To cater for both guests and short-lease tenants, two SSIDs are broadcast, but tenants have private connectivity with enhanced security to meet trading standards and support tills and bar code scanners. “As well as long-term tenants, we’re increasingly seeing requests for connectivity to support short-term leases and centre events. That means we need to be able to set access up quickly and easily, whether they’re in the centres themselves or, for example, food markets held outside,” says Brown. “Larger stores usually prefer to have their own Wi-Fi, but Aruba gives us the flexibility to offer short-term connectivity from day one while they’re getting set up.”

The company hopes to offer connectivity as a service, giving all users the same, seamless experience across the shopping centres and providing tenants with value insights.

Making better use of consumer data

In addition to offering consumers better connectivity as they shop, Aruba’s Edge Services Platform (ESP) architecture allows the collection of user and endpoint data. Thanks to all the data collected from over access points, switches and other network elements, Aruba Central, with its built-in AI Insights, proactively identifies and resolves any network issues and provides accurate configuration recommendations.

Through the AI-Insights Dashboard, the team can also monitor network connectivity heatmaps and other information which then allows the extraction of insight on the habits and behaviour of more than 10,000 people per site every week. “Capturing data in a compliant way is always a challenge, but with Aruba technology we can build a customer database to create more valuable interactions with them,” adds Brown.





Insights, which to ensure compliance with data protection rules are anonymous in terms of personal data, show how far a shopper has travelled, whether they've been to any other Landsec shopping centres and information about their demographic. By uploading floor plans and integrating sensors with Aruba Central, the team can also track how people move through the centre and identify any areas where people are dwelling.

"This information is invaluable in the wake of the Covid-19 pandemic. We're currently piloting a solution to control visitor numbers and identify areas that need extra cleaning," reveals Brown. "Being able to reassure shoppers that we're taking additional safety and hygiene measures is really important."

For retailers, richer data will help them target customers in real-time with promotional offers and invitations to events, boosting revenues and encouraging repeat visits.

KHIPU Networks also uses analytics to keep the network running smoothly, for example tracking traffic to ensure sites don't max out their bandwidth.

Partitioning the network to support office workers

With smarter cloud management, Landsec can build more value on top of its network. "We have corporate offices located at some shopping centres and traditionally we had expensive MPLS connections and contracts in place to support those users," explains Brown. "With Aruba, we can partition off some of the Wi-Fi and LAN to provision our management offices at those locations. And it is all securely automated based on each employee's role and access privileges."

This model will be hugely beneficial to Landsec's future urban regeneration projects, where mixed community spaces will include permanent residents, office space and guests visiting for leisure. By offering seamless con-



nectivity to all parties, the company can provide more managed services to tenants.

NO NEWS IS GOOD NEWS

With Aruba and the managed services from KHIPU Networks, Landsec has future-proofed its network infrastructure and has a robust platform to take advantage of the next wave of innovation, from AI, to smart lighting, air quality control and building maintenance. Many more opportunities present themselves to help retailers connect to consumers in more effective ways.

"It may seem counter-intuitive but every day that I don't hear about the Wi-Fi is a testament to its success. With the previous solution I heard plenty about outages or slow servers but with KHIPU and Aruba I know they're making good decisions to keep our Wi-Fi up and running," confirms Brown. "Our Wi-Fi is 100 times better than it was."



The Cyber Security Company

KHIPU Networks, founded in 2005, specialise in the design and deployment of 'best of breed' Next Generation Networking, Wi-Fi and Cyber Security solutions and services into the Education sector. KHIPU have been in partnership with Aruba since 2005, implementing and supporting their entire solution portfolio.