

# Siklu & Infinet CCTV Solution Drives Lincoln's Smart City Status.

## The Overview

As part of their Vision 2020 Smart City project, the City of Lincoln Council asked Videcom to design and install the best wireless network to support their CCTV security system. Using Siklu and Infinet technology, expectations were blown out of the water, delivering a cost-effective, reliable solution.

**Location:** Lincoln, UK

**Systems Installed:** Siklu, Infinet

**Integrator:** Videcom Security Ltd

**Customer:** City of Lincoln Council

## The Challenge

Vision 2020 is an ambitious project that aims to evolve Lincoln into a true Smart City, keeping its residents at the heart of every development. It addresses many key improvements needed within the city across all areas, from infrastructure and retail, to industry, and education. Crime is also a key area that the council want to target, as ensuring the safety of Lincoln's residents is vital in the city's progress towards becoming an innovative Smart City.

Lincoln was utilising traditional analogue circuits to connect their CCTV systems across the city, which suffered from limited bandwidth and a high cost to performance ratio. The council wanted an updated system that would provide a comprehensive cover of the city with minimal unscheduled downtime.

## The Solution

Achieving the needs stated within the council's brief would mean, first and foremost, finding a solution that would best handle copious city interference. And when it comes to tackling interference, Siklu's mmWave technology is second to none. Practically interference free as a result of operating on the unique mmWave frequency, Siklu is often the 1st choice in smart city operations.

Videcom had previously experienced success with Siklu technology deployments in other cities around the UK, and so they knew that Siklu would form part of the perfect solution for Lincoln Council. A key advantage in this scenario was Siklu's ability to deploy a resilient ring network, automatically re-routing traffic to meet any network demands.

With Siklu technology forming the backbone of Lincoln's wireless network, Videcom chose to implement Infinet Wireless Point to Point and Multipoint technology to round out the solution.

Infinet's years of experience in the video surveillance market has ensured they have the know-how to provide guaranteed reliable transport solutions for video streaming.

Videcom used Siklu E-Band radios, characterised by pencil thin beams, to guarantee high reliability and practically no interference over 80 GHz frequency. High throughput and low latency combine to deliver fibre-like performance with an integrated layer 2 switch for resiliency and diversity routing.

60GHz V-band radios were used at street level to connect over 300 cameras, including urban traffic cameras. Coverage was to extend throughout the city, including the Safe Zone, an area covering the busy city centre with 360 degree visibility, and the system was designed to report both proactively and reactively. Videcom then combined Siklu with the might of Infinet backhaul PtP and PtMP technology, utilising 5GHz, InfiLINK and InfiMAN products to ensure network survivability no matter the situation, with flexible management for ease of use.

## The Results

Over 300 cameras now operate on a wireless high definition 4K HD system, and are all fully integrated within the city centre CCTV control room. The use of Siklu's mmWave and Infinet's robust 5GHz technology was ideal for a city centre wireless CCTV deployment, and has guaranteed a secure system without compromising on quality or price.



"The police love the system and we've had very positive feedback from them. There is really no comparison from how we operated previously to how we can now. It revolutionises how we operate and the potential for what we can achieve going forward is remarkable".

**Martin Byrne, Lincoln City Council**

The city and police began to reap the benefits of a better connected and managed CCTV system immediately after installation, agreeing that the success of the new system will go a long way in providing a greater measure of safety across the city.

Spare transmission bandwidth has also been put to use, allowing the planning of smart services to the city, some of which have been implemented already. WiFi connectivity is provided in public areas, enabling the ability to push out information promoting city events and business promotions. People counting has also given the council and businesses a new insight into the way people use zones around the city.

Other security measures included car park data sharing, which has given managers access to the CCTV that protects their car parks, and supplied network bandwidth to operate their payment systems. The addition of automatic number plate recognition has also made huge leaps in making the roads safer, allowing city law enforcement to better detect and deter criminal activity.

For any city that is serious about evolving into a Smart City, relying on outdated analogue systems or struggling with trying to implement a fibre-only solution is out of the question. With the successful completion of the brand new CCTV system using a hybrid fibre-like system, Lincoln City is another step closer to achieving their Vision 2020 project goals, and having the city realised as a true Smart City.



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