

# LIGHTING THE WAY TO SAFER, SMARTER CITIES

## TELECOM CASE STUDY



## BACKGROUND



A Smart Pole represents the next evolution in intelligent infrastructure for Smart Cities, incorporating a range of network-based functionalities. These include a crime prevention feature utilizing an integrated camera to identify anomalies in the vicinity and send remote notifications. Additionally, they can include a disaster alerting and prevention function that activates warning lights in sync with real-time disaster information from Meteorological Agencies.

In Japan, Secual, Giga Prize, and IIJ are in the process of creating advanced street light systems with features encompassing crime prevention, disaster prevention, and monitoring capabilities.

In April 2021, Secual, the provider of Smart Poles, and Giga Prize, specializing in internet connection services for apartment complexes, entered into a collaborative agreement to jointly innovate a novel street-light model.

Their objective includes establishing communication infrastructure through public Wi-Fi. This collaboration extends beyond conventional applications, exploring its utility in diverse fields, such as monitoring people flow and crowd density.

## ZELLA DC & IIJ PARTNERSHIP

IIJ is the first commercial internet service provider in Japan. They approached Zella DC in 2020 when they decided to expand their service capability of IT and digital infrastructure, including the data centre. They had been planning to add a micro data centre to their products line and found our range of indoor and outdoor data centres was in line with what they were looking for.

Zella DC deployed its first outdoor Zella Hut for IIJ in October 2021 as part of a demonstration of DX edge, a new Edge computing platform IIJ is planning to offer to telecoms & 5G customers.

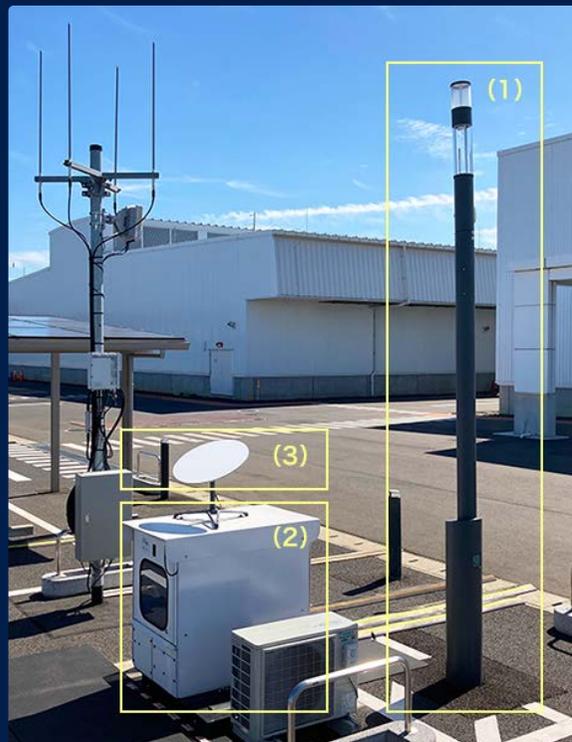


*At the beginning of 2021 Tokyo was hit by an unusual snow storm that affected many businesses and operations. The Zella Hut was not affected by the snow, the storm or the low temperatures.*

# SOLUTION

The inaugural Smart Pole has been deployed at IJ's Shirai Data Centre, serving as a collaborative demonstration experiment and facilitating the ongoing refinement of this innovative technology.

Data generated by the pole is stored and processed in the Zella Hut outdoor data centre. These advanced street lights have already been strategically deployed in subdivisions, parks, and various other locations



The Zella Hut outdoor data centre is an integral part of this project as it allows to store and process data at the edge, by the smart pole. Main benefits:



## HIGHLY DISTRIBUTED

Perfect for this highly distributed set up – makes it easy to place data and infrastructure right where it's needed.



## LATENCY

No need for data to travel to the cloud – minimised latency.



## IP65 RATED

IP65 rated, protects equipment from extreme temperature, dust, water, and UV rays.



## SECURITY

Robust cyber and physical security features protect data and infrastructure.



## REMOTE MONITORING

Monitor and manage all edge deployments remotely from a central location.



## HIGHLY EFFICIENT

Highly efficient – reduced energy costs and carbon emissions.

# ZELLA Hut

## OUTDOOR MICRO DATA CENTRE

An alternative to containerised data centres, the Zella Hut is a stand alone outdoor micro data centre, built on the time proven Zella Pro series.

Available in three sizes, Zella Hut has all the same features as Zella Pro, with the added benefit that it can be placed outdoors.

The Zella Hut range has been designed with the edge in mind – built to protect your assets and IT infrastructure no matter where they are located.

**Ready to be deployed at the Edge.**



Empowered by



**ZELLA** Sense

Advanced Intelligence and Automation

# ZELLA DC

Your data centre, anywhere

Zella DC is a market leader in edge-enabling solutions. With a comprehensive range of indoor and outdoor Micro Data Centres and scalable Containerised Data Centres, Zella DC offers a standard turn-key configuration ready for swift deployment and installation, enabling secure, reliable, and controlled environments for IT and OT equipment anywhere.

With expertise gained over the past decade, Zella DC has deployed Micro Data Centre solutions worldwide, meeting diverse requirements across numerous industries and environments. Zella DC excels in overcoming the unique challenges associated with edge and distributed deployments, providing standardisation and proven solutions.

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