A CARBON NEUTRAL MICRO DATA CENTRE

TELECOM CASE STUDY

BACKGROUND

Internet Initiative Japan (IIJ), a prominent provider of Internet access and network solutions in Japan, along with its UK subsidiary IIJ Europe, has launched a field trial in collaboration with Iceland's national power company, Landsvirkjun.

Running from April 2023 to March 2024, the trial involves the installation of a Zella Pro micro data centre (MDC) at the Landsvirkjun Írafoss hydropower station in southern Iceland. The objective is to establish an integrated ICT infrastructure for the operation and management of distributed data centres across various countries and regions.

Iceland's strategic geographic location, situated between North America and Europe, makes it an ideal candidate to become a North Atlantic communications hub.

The trial is also motivated by the availability of 100% renewable energy in Iceland, aligning with IIJ's commitment to achieving carbon neutrality in its data centres.

The trial aims to validate the market potential for distributed backup solutions across countries and regions, resembling "data embassies."

IIJ Europe will handle the remote control of the Zella Pro from the UK, while the entire IIJ Group will conduct verifications focused on value creation through integration with cloud, IoT, and other services.

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 Zella Pro was chosen for this project due to its incorporation of all the features typically found in traditional data centres, including UPS, cooling, physical and security features, all within a compact size. Additionally, the Zella Pro can be remotely monitoring and management.

Leveraging the renewable energy source from Iceland's hydro and geothermal technology, this project aligns with sustainable development goals and promotes environmentally friendly data centre practices.

CARBON NEUTRALITY

This project created the first carbon-neutral edge micro data centre, marking a significant milestone in eco-friendly data centre solutions.

SUSTAINABLE DEVELOPMENT

The project exemplifies sustainable development by relying on 100% renewable energy sources, contributing to a greener future.

REMOTE MANAGEMENT

The Zella Pro does not require on-site personnel - it's fully monitored and managed by IIJ Europe in the UK.

DISTRIBUTED ENVIRONMENT

The aim of this project is to test the market potential for distributed backup across countries and regions.

ZELLA Pro
INDOOR MICRO DATA CENTRE

A Zella Pro is a compact, portable and secure micro data centre that eliminates the need for a traditional on-premise server room.

It's an all-in-one, easy, and fast deployment solution, that can be installed in a matter of hours.

Zella Pro includes precision cooling, cyber and physical security, rack mounted switchboard, 0RU PDU and it's ready to be populated with your IT equipment.

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.