



A SECURE AND STABLE IT ENVIRONMENT

HEALTHCARE CASE STUDY



ZELLA DC

BACKGROUND



Papua New Guinea (PNG) faces the largest HIV epidemic in the Pacific Region; this has prompted a collaboration between the Centre for Disease Control and Prevention (CDC), the World Health Organization (WHO), and the PNG government since 2007.

The focus is on enhancing the national HIV / AIDS program by building in-country capacity for surveillance systems, improving health information systems, and utilizing data-driven decision-making.

The CDC collects data about the virus spread in Port Moresby, securely linking it to a server network based in the US.

CHALLENGE

Ensuring the utmost security for patients' health records and treatment data is imperative.

The challenge lies in maintaining a secure environment capable of withstanding local power fluctuations for storing, processing, and analysing data.

When the CDC contacted us, they were facing various challenges, including:

Limited on-site IT personnel

Bandwidth and latency constraints

Concerns about physical security

An unreliable power supply

Limitations in local data processing and storage capabilities

The complexity of managing remote locations in challenging conditions

SMART HEALTHCARE

Data generated by healthcare currently accounts for around 30% of all global data. A 2020 survey by Dell discovered an astronomical nearly 900% increase in only two years. This steep increase is caused by our reliance of technology in all aspects of healthcare:

- Hospital beds typically have 10-15 connected devices
- Wearable healthcare devices
- Robotics performing intricate operational procedures
- Indwelling devices (pacemakers, defibrillators, cardiac monitors etc.)
- Data generated from patient examinations (blood pressure, pulse rate, etc.)
- Blood tests and other results.

Data generated through healthcare needs to be stored and processed on-site to minimise latency and increase security.



SOLUTION

The CDC were able to solve all their challenges by installing two Zella Pro 38.

REMOTE CONTROL

Thanks to Zella Sense, the Zella Pros can be monitored, managed, and controlled remotely.

LOCAL PROCESSING

Processing data on-site has improved the timeliness and accuracy of data collection and reporting.

SECURITY

Cyber and physical security measures create a secure environment for the sensitive data handled by the CDC.

CRITICAL OPERATIONS

The Zella Pro provides a safe and stable environment for critical data processing.

COMPACT

It was easy for the CDC to find the best spot for their Zella Pros in their Port Moresby office - no need for a dedicated server room.

UPTIME

Uptime is protected thanks to Zella Sense Intelligence and Automation, as well as redundant cooling systems and PDUs.

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, ORU 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.

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