

FORTINET SECURES ZLT NETWORK-IN-A-BOX FOR SELF-CONTAINED TELECOMMUNICATIONS

New Zealand Red Cross deploys the ServerWorks ZLT (zero local touch) to support “business as usual” telecommunications in the Pacific Islands and support emergency communications for disaster recovery



“We selected the Fortinet solutions because no other single vendor has a security fabric platform from top to bottom. Fortinet stands alone with their comprehensive touch across the security spectrum. In fact, it was not even a decision to install Fortinet equipment. It was a given.”

- Kraig Winters, Managing Director of ServerWorks



Installing, configuring, and supporting communications networks in remote or temporary locations has always been a challenge. The equipment must be delivered, skilled technicians have to be available to hook everything up, and then someone onsite has to keep the infrastructure running. Difficult enough under the best of circumstances, but even harder in hot, humid, or dusty locations.

Not anymore. Christchurch-based systems integrator ServerWorks has developed a self-contained network-in-a-box, called the ZLT (zero local touch), that can be installed in minutes, operate under extreme conditions, and be moved around as required. Managed remotely from ServerWorks’ facility in Christchurch, the ZLT takes full advantage of Fortinet infrastructure to secure the network and provide access to the Red Cross IT team to ensure robust operations, regardless of location.

RED CROSS PROTOTYPE

“We built the prototype ZLT for New Zealand Red Cross,” says Kraig Winters, Managing Director of ServerWorks and a member of the New Zealand Red Cross IT & Telecommunications Emergency Response Unit (IT&T ERU). “On deployments to the Pacific Islands, in response to emergencies, we would help restore the infrastructure. But environmental challenges—heat, dust, moisture—would result in a gradual degradation of service. It is not a reflection of local support by any means; in fact, training is a key component of the programme, but a fact of life in the tropics. And this is under the best of circumstances. In times of emergency, the challenges multiply quickly.”

Winters, as an IT professional with first-hand knowledge of the issues, had the background and resources to address these challenges. “ServerWorks specialises in solving problems,” says Winters, “so we worked with Red Cross in a collaborative effort to explore the idea of a network-in-a-box to address these issues.”

DETAILS

CUSTOMER: New Zealand Red Cross

INDUSTRY: Not for Profit

LOCATION: Christchurch, New Zealand

CHALLENGES

- Difficulties in installing, configuring, and supporting networks in remote locations
- Humidity, dust, and extreme temperatures wreak havoc on sensitive equipment
- Skilled staff in short supply to maintain and operate complex networks

BENEFITS

- Easy deployment in remote or temporary locations
- Robust operations under extreme conditions
- Remote management minimises need for onsite support

The New Zealand Red Cross IT&T ERU then prepared a requirements document outlining the need for a self-contained network solution that could be deployed quickly and easily in the Pacific, regardless of location. Winters put together a schedule of components that would provide the necessary functionality. “New Zealand Red Cross drove the process,” says Winters. “Once we had the specifications, joint funding was secured and ServerWorks received the green light to build and deploy the unit.”

FORTINET COMPONENTS “A GIVEN”

“We installed a suite of Fortinet solutions inside the ZLT,” he explains, “including a Fortinet FortiGate 60E Next-Generation Firewall, FortiSwitch 124D PoE, FortiAP 224 access points with external antennae, and FortiEMS to manage connected devices running FortiClient. All of these are connected via a VPN to our Christchurch facility where we already provide managed security services based on FortiManager and FortiAnalyzer. Plus we subscribe to the FortiGuard Enterprise Protection Bundle for additional security services such as FortiSandbox Cloud.

“We selected the Fortinet solutions because no other single vendor covers the security fabric from top to bottom,” Winters explains. “Fortinet stands alone with their comprehensive touch across the security spectrum: firewalls, access points, switches, management, and more all tied together by FortiOS. Added to that is the overall Fortinet Security Fabric, which provides a framework for advanced protection and real-time threat intelligence updates provided by FortiGuard Labs. In fact, it was not even a decision to install Fortinet equipment. It was a given.”

A key feature of the ZLT is remote management. “We can operate the unit from our Christchurch facility,” says Winters. “This is what the ZLT stands for—zero local touch. All the local team needs to do is deliver the unit to a patch of dry land, plug into power and internet, and flick a switch. We do the rest.”

DEPLOYMENTS IN TONGA AND SAMOA

After close to 1,000 hours of development, the prototype ZLT unit was ready for deployment in Tonga in May of 2018. “The ZLT is now up and running,” says Winters, who oversaw the installation. “In fact, it caused quite a stir in Nuku’alofa as Government ministers, NGOs, and private enterprises could see the value of the ZLT units for ‘business as usual’ operations. The emergency management capabilities are a bonus.”

“The ZLT project is a critical component of our wider Red Cross Red Crescent Movement’s Knowledge Pacific Programme,” says Andrew Bate, Manager of the IT&T ERU at New Zealand Red Cross. “This programme aims to support our sister National Red Cross Societies in the Pacific with knowledge-based tools (hardware, software, and expertise) in very challenging environmental conditions. These tools will go a long way to improving Red Cross National Societies’ use of information to make decisions in times of crises and to deliver help to people who are most vulnerable and most in need.

“The New Zealand Red Cross IT&T ERU, Kraig and his team at ServerWorks have done remarkable work,” he continues. “We could not have accomplished this project without their time, expertise, and generosity. I can confidently say that their efforts will help save people’s lives in the Pacific in the coming years.”

ServerWorks is preparing to install a second ZLT in Samoa with two more units in the pipeline for Red Cross. “There is a manifest need for this type of solution,” notes Winters. “Other similar units cost close to a million dollars and don’t provide the ease of use and remote management that set the ServerWorks ZLT box apart.

“We will be gearing up to produce ServerWorks ZLTs for clients further afield as the word gets out,” he concludes. “The units are portable—they weigh in at 225kg—so organisations can move them around as they see fit. We will be targeting construction sites, mines, and off-the-beaten-track tourism operators. It’s an exciting time and, with Fortinet securing the operations, we are looking forward to more secure deployments under the most demanding conditions.”

SOLUTION

ZLT Network-in-a-Box

- FortiGate 60E Next-Generation Firewall
- Fortinet FortiSwitch 124D PoE
- FortiAP 224
- FortiEMS
- FortiClient (for connected devices)

ServerWorks Remote Management/ Security as a Service

- FortiManager
- FortiAnalyzer