



Citrix SD-WAN Enables Accessible Patient Care at Grand Pacific Health

Delivering business-critical applications and information for primary care through the fast lane



Grand Pacific
Health
and Citrix

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– **Ben Roberts**
System Administrator,
Grand Pacific Health

About Grand Pacific Health

Grand Pacific Health is a non-profit, primary healthcare organization in Australia providing locally tailored, high-quality services with an emphasis on physical and mental health, youth health, Aboriginal health, and chronic disease management.

Grand Pacific Health spans 14 sites across New South Wales, Australia, connecting to a central private cloud data center hosted by an Australian telecommunications provider in Sydney.

Not only was their existing telco provider solution expensive, but also painfully slow to implement. As they explored solutions to ensure a better, more reliable network connection to their sites, GPH needed to strike a balance between performance and cost while cutting down deployment time for each site significantly.

The Business Challenges

Previously, Grand Pacific Health had been utilizing Multiprotocol Label Switching (MPLS) technology to connect their remote sites to their data center. Despite the solid performance, setting up MPLS proved to be expensive and painfully time consuming. In some cases, there were delays of up to six months between contract signing and the site becoming operational.

“It was impairing how agile we need to be as a business and how quickly we need to open new sites and deliver new services,” said Ben Roberts, the System Administrator.

Grand Pacific Health was backhauling cloud-destined traffic through the data center rather than breaking out locally, consuming additional costly bandwidth and increasing latency for business-critical SaaS applications such as Microsoft 365.

Public cloud infrastructure had long been cost-prohibitive for Grand Pacific Health, whose leased private cloud data center demanded a solution that was available in both physical and virtual form factors for flexible deployment.

As Grand Pacific Health sought a replacement to their existing MPLS WAN solution, they looked for an SD-WAN vendor that could meet a number of key expectations:

- Speed and ease of deployment
- Reliability and performance
- Cost effectiveness
- Choice of form factor

Driving Dependable Healthcare Infrastructure

Grand Pacific Health ruled out a number of solutions that could not meet their criteria; some were not available in virtual form factors, while others were prohibitively expensive. Citrix SD-WAN ultimately struck a perfect balance and met their criteria for performance, flexibility, and cost.

With Citrix SD-WAN, Grand Pacific Health is able to extend readily available connectivity to remote sites in a fraction of the time. “Now we can order a branch device from our supplier and National Broadband Network (NBN) service from a smaller ISP and be up and running in a week,” states Roberts.

Grand Pacific Health is also able to deploy Citrix SD-WAN as a virtual instance in their leased private cloud, providing them the flexibility to accommodate their unique deployment situation. Because Citrix SD-WAN operates over multiple diverse, bonded links, GPH can ensure that their network performance is consistent and reliable. In case of network disruptions or outages, integrated LTE provides redundancy with Citrix SD-WAN's sub-second failover to maintain connectivity.

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Grand Pacific Health has also taken the first steps of their migration to the public cloud with Citrix SD-WAN for Microsoft Azure. Leveraging Citrix SD-WAN automated Azure on-ramps, Grand Pacific Health has extended their SD-WAN into Azure and deployed virtual machines to extend their Active Directory domain.

Optimizing Application Performance

Grand Pacific Health uses various Electronic Medical Records (EMR) systems to perform critical healthcare functions, including the storage of patient records and the management of prescriptions. The healthcare provider also relies heavily on Microsoft 365 for a variety of its business applications.

For a better application experience, Grand Pacific Health is leveraging Citrix SD-WAN to detect and steer Microsoft 365 traffic directly to Microsoft cloud points of presence, or "front doors," nearest to the users. This direct breakout of traffic recommended by Microsoft reduces latency and improves performance across the board, for everything from Teams video calls to OneDrive file downloads.

As a longtime user of Citrix Virtual Apps and Desktops, Grand Pacific Health benefits further from integration with Citrix SD-WAN. With full shared virtual desktops, GPH had to limit bandwidth inside the MPLS frame which negatively impacted performance. Their old links were severely lacking in performance, with some providing as little as 2 Mbps. With the Citrix SD-WAN solution, they've upgraded to 100 Mbps broadband links, ensuring ample bandwidth for high quality audio and video traffic. With Citrix SD-WAN centrally configurable policies, the healthcare provider can customize detection and prioritization of individual traffic categories, such as web and voice, within each virtual desktop session.

Surgery physicians at Grand Pacific Health had complained about poor application performance for years. With Citrix SD-WAN, they now enjoy high-performing applications that are always readily available. They simply connect to the office Wi-Fi, and Citrix SD-WAN optimizes and intelligently routes all their application traffic to provide them with a consistent and always-on experience every day.

Protecting Patient Information

It is imperative that confidential patient records are accessed and stored securely to protect sensitive personal information. Grand Pacific Health is exploring how it can leverage Citrix SD-WAN's new integrated edge security stack, which offers integrated, comprehensive security in branches including IDS/IPS, web filtering, and malware protection. This will allow them to securely breakout SaaS and cloud traffic over the internet while preventing threats from entering through the network. With Citrix SD-WAN Orchestrator, all network health information, security, monitoring, and management are available through a cloud-managed single pane of glass tool. This enables Grand Pacific Health to easily configure application-centric policies, quickly provision new sites, and troubleshoot the network centrally across all their sites.

Building a Healthier Network

The doctors at Grand Pacific Health can now rest assured that applications and patient records are always accessible with a network that is powerful and reliably delivered over multiple diverse links. Patients will feel safe knowing that any sensitive personal information is handled securely on the network.

Grand Pacific Health is enjoying a significant return on investment with Citrix SD-WAN, which enables them to transition away from expensive MPLS infrastructure. Citrix SD-WAN can be deployed as a virtual instance, Grand Pacific Health is able to utilize their existing leased private cloud hosting with no issues.

Ultimately, with Citrix SD-WAN and Orchestrator, Grand Pacific Health is able to meet their key business objectives and enjoy a number of application performance benefits. They are able to deploy network connectivity to a new site faster than ever before, ensuring access to business-critical applications and services with minimal wait time.

“As you can imagine, it was frustrating how long it took to implement new sites; in fact, it took them 2 or 3 weeks just to add a route. Now, if we want to add a route or new site, I can just do it myself. ... We've got actual control now,” shares Roberts.



Grand Pacific Health
Suite 1, Ground Floor
336 Keira St
Wollongong NSW 2500
Australia
Phone | 02 4220 7600
Website | <https://www.gph.org.au>



Enterprise Sales
North America | 800-424-8749
Worldwide | +1 408-790-8000

Locations
Corporate Headquarters | 851 Cypress Creek Road, Fort Lauderdale, FL 33309, United States
Silicon Valley | 4988 Great America Parkway, Santa Clara, CA 95054, United States

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