

SD-WAN Solution for COVID-19 Testing and Assessment Centre



Morewave's comprehensive network and IT solution supported a drive-through COVID-19 testing facility for 14 months, allowing 45 staff to conduct over 600 tests per day, 7 days a week. Together with multiple onsite wireless connections, Morewave SD-WAN delivered the bandwidth required plus constant, reliable connectivity to secure patient records management and reporting applications. This enabled the facility to achieve high testing throughput and ensure stakeholder satisfaction.

About Partner

[Visit Website](#) 

Headquarters

Vancouver, BC

Founded

1998

Morewave Communication Inc. is a Vancouver, BC-based technology company. Founded in 1998, Morewave provides enterprise fibre, colocation, network design, digital signage, SD-WAN, and more. Morewave's customers range from community services organizations, local government, emergency services, home-based businesses, automotive, and early childhood education centres to film and TV productions and visual effects studios. Morewave's team prides itself on delivering clever, cutting-edge, cost-effective and scalable business solutions. Morewave Sales inquiries, please email: sales@morewave.com

Customer Challenge

“ For 14 months, Morewave SD-WAN enabled over 45 staff to deliver over 110,000 tests”

Morewave's customer, the Burnaby Division of Family practice is a not-for-profit organization that supports the Family Physicians of Burnaby in providing primary care in Burnaby, a municipality in British Columbia, Canada, with over 1.8 million residents. Part of the Division's COVID-19 response involved setting up a Covid Testing and Assessment Centre (CTAC) in shipping containers placed in a parking lot to make it easier for potentially ill residents to access drive-through COVID tests without entering a hospital or doctor's office. The CTAC provided the option to access other services if residents had COVID as well as other issues that required an in-person assessment.

During its 14 months of operation, the field site conducted over 600 tests per day, with 45 clinical and non-clinical staff onsite daily. The site operated 7.5 hours per day, 7 days a week, with extended hours depending on public demand. Ensuring reliable, high-performance access to the district's healthcare patient and records management application as well as secure daily reporting for tracking and updates to the Provincial Health Officer was critical to the ongoing operation of the testing centre.

Because the test centre was set up in a parking lot close to major intersections, there were significant challenges with reliable network and connectivity. In the initial days and weeks, site staff were frustrated by network connectivity failures, outages, and flapping. These caused the IP address of their tablets and laptops to change, which triggered their secure applications to log them out and created delays in accessing and updating patient records and transmitting results and reports. Unreliable connectivity meant that the process was slow, and staff and residents being tested had to wait for the network connections to be restored and staff to re-login repeatedly.

The Solution

Morewave was brought in by the healthcare district to solve their network performance and connectivity issues. There were several unique and challenging features of the CTAC:

1. Located in a parking lot across a path and a stream,
2. Approximately 100 meters away from convenient network ports in nearby buildings,
3. Converted Shipping containers used as remote site offices and testing spaces meant poor wireless network reception inside and between offices and testing spaces,
4. Multiple network connections were needed to achieve the bandwidth and speed required,
5. Unchanging IP addresses were required, despite multiple network connections being deployed, to ensure staff would remain logged into their secure web-based applications.

Our approach to solving these technical problems involved more than just throwing technology (and cost) at the challenges. We knew that signal propagation through the steel shipping containers would be a challenge and that the best solution would involve a localized, managed WIFI network, a long-distance Ethernet run, and multiple LTE network connections.

We used our SD-WAN platform to aggregate or bond the bandwidth of multiple LTE circuits into a single, high-bandwidth SD-WAN tunnel, together with the Ethernet run. All connections were given a single IP address.

Our SD-WAN platform managed the fixed and LTE circuits, removing them from the SD-WAN if their jitter, packet loss, or latency exceeded performance limits and restoring them back into the SD-WAN once they recovered. The SD-WAN supported being deployed specifically for the customer, using their IP addresses. Specific customer-dedicated core nodes were set up to deliver high availability.

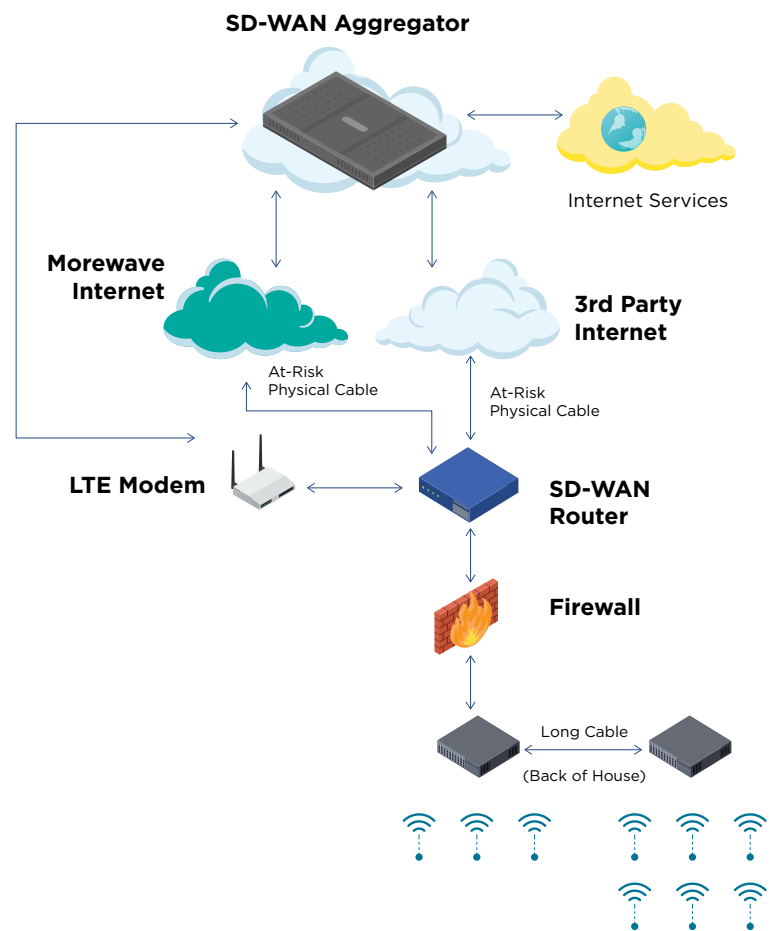
We used the management interface to show network performance and uptime to the district's IT team, helping us demonstrate the reliability of our solution.

IT Worked!

Reliable Connectivity and Performance Achieved

After about 2 days of setup, configuration, and testing, our solution was put into place. We installed a local WIFI network, ran over 300 meters of ethernet cabling to a WAN port in a nearby building owned by the district, and installed 2 LTE connections. The SD-WAN aggregated the bandwidth and managed the IP addresses and failover across all the connections. Wireless networking antennas were placed at key locations on site to ensure full motion coverage for all operational areas.

In place for 14 months, Morewave's SD-WAN solution enabled over 110,000 tests to be delivered. During that time, there was a single outage resulting from a failure in an LTE modem at the same time as a break occurred on multiple upstream cables. It took Morewave 45 minutes to arrive onsite, plug in a new LTE modem and restore service. Service with a smile!



About Turnium

Turnium Technology Group, Inc. delivers its software-defined wide area networking (SD-WAN) solution as a white label, containerized, disaggregated software platform that channel partners host, manage, brand, and price and as a managed cloud-native service. Turnium SD-WAN is available through a channel partner program designed for Telecommunications Service Providers, Internet and Managed Service Providers, System Integrators, and Value-Added Resellers.

About SD-WAN

SD-WAN is revolutionizing the networking and telecommunications industry by abstracting secure, high-speed networking and network control from underlying physical circuits. SD-WAN frees enterprises, small-medium businesses, cloud, and managed services providers from the business and cost constraints imposed by traditional telecommunications companies.

CONTACT TURNIUM TODAY.

sales@ttgi.io • +1 604-398-4314 | +1-888-818-3361 • turnium.com

turnium
TECHNOLOGY GROUP INC.