NTT DATA

South Africa | Retail and wholesale

Managed SD-WAN delivers seamless store connectivity and turnover boost for Pick n Pay

Client profile

Pick n Pay is the quintessential family store focused on the customer. Established in South Africa in 1967, the group has expanded across the continent and now has stores in Botswana, Lesotho, Mauritius, Mozambique, Namibia, Swaziland and Zambia. The group operates across multiple store formats, both franchised and owned.

Why NTT DATA?

- Existing relationship for network management
- Expertise in SD-WAN technology and network management
- Strong focus on integrating with Pick n Pay's teams

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> We've been working with NTT DATA to get the network where it needs to be. That work has now borne fruit. The network has stabilized, we have insight into how it works and that's supremely good news for us. In the past six months we've already added 1% to our turnover.

Stian Joubert, General Manager
Infrastructure and Operations, Pick n Pay

Business needs

- Stable and reliable network infrastructure
- Improved connectivity and availability for stores
- Enhanced security measures

Solution

- Implementation of SD-WAN technology from Fortinet
- Utilize load-shedding resilient internet connections as part of the SD-WAN design
- Fine-tuning the network for optimal performance

Outcomes

- Increase turnover as a result of network stability
- Improved network stability and availability
- Reduced impact of load shedding on operations
- Enabled future services and innovations

Pick n Pay

Business need

Keeping a network on when the power goes off

The Pick n Pay Group is a leading retail company in South Africa, with more than 1,200 stores. They serve customers from all income groups. Smaller stores, some in rural areas, offer essential groceries and general merchandise. Large, flagship outlets offer premium in-store services like delis and coffee bars.

Their in-store Wi-Fi supports the customer experience and enables value-added services, being able to check loyalty rewards. These connections have to be highly secure. To support their physical stores, offices and online retail site, Pick n Pay needs their network to be available 24x7. It also needs to be reliable and stable enough to handle increased demand on high-traffic shopping days (like Black Friday and Cyber Monday).

Keeping the network on is extremely challenging in South Africa, where rolling blackouts are a daily reality. When the demand on the national power grid is too high, the power supply in certain areas is cut, usually for hours at a time – a practice known as "loadshedding". It's not uncommon for some areas to experience loadshedding a few times a day, for many days in a row. Loadshedding affects cellular towers and general connectivity as well as in-store wireless networks, pay points and connection to the larger wide area network (WAN). And if people can't shop, or pay, the company loses income.

Solution

Creating new patterns for success

Software-defined wide area networks (SD-WAN) are networks that can use additional resources to adapt to changes in demand and prioritize business-critical traffic. Implementing Fortinet's Secure SD-WAN helps stabilize the network and enable reporting through a dashboard that shows network performance and possible problems. This allows the retailer to resolve issues before they affect the network.

However, this didn't address the specific problem of loadshedding – which can be implemented on short notice or even with no notice – with different areas and stores having power at different times. The NTT DATA team worked closely with Pick n Pay to introduce load-shedding resilient internet connections into their SD-WAN environment. Stores typically use a mix of terrestrial internet connections as part of their SD-WAN (such as fiber, LTE or microwave). These connections are often impacted downstream from the store when load shedding takes place. The store may

have power – through a backup power solution – but the connectivity to payment systems can still drop because other parts of the terrestrial infrastructure don't have a resilient power supply. Satellite internet doesn't have this problem as it's not dependent on service providers outside of the store premises. Introducing satellite as an internet connection into PnP's SD-WAN solution allows trading and payments to continue even when terrestrial connections go down. We went through the challenging task of fine-tuning the network to ensure the connection failover worked perfectly each time. We worked with Pick n Pay to create this new capability while ensuring that the price remained cost effective. Close collaboration between the teams was essential to the solution's success. This network model will be rolled out to all new stores.

Outcomes

Co-innovation creates new opportunities

Pick n Pay now has a highly reliable network to support their stores as well as their offices. Implementing Fortinet Secure SD-WAN improved network stability, connectivity and security, and the pattern to address loadshedding enables Pick n Pay to trade even during rolling blackouts.

Increased turnover

Being able to compensate for high volumes of traffic and always being able to process payments enabled Pick n Pay to add 1% to their turnover the first six months the solution was active.

Improved network stability and availability

The enhanced SD-WAN solution creates stable and reliable connectivity, reducing downtime and improving operational efficiency.

Enabled future services and innovations

A stable network infrastructure creates opportunities for Pick n Pay to explore new services and create innovative retail solutions.

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> Initially, we were slow off the ground to get Pick n Pay's network as stable and secure as we'd like it to be. We had to go on a journey of learning and coinnovation to keep our networks up and running, and to customize them to deal with the challenges of loadshedding.
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> **Stian Joubert**, General Manager Infrastructure and Operations, Pick n Pay

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