

NOKIA

Tier 1 African network operator strengthens market leadership by automating optical transport service delivery

Case study



Fast facts

1. This communications company provides connectivity, digital and financial services to almost 200 million customers across Africa.
2. Long a market leader in deploying high-speed, long distance optical networking technology, this network operator is now using automation to improve performance and reduce costs.
3. The network operator is using Nokia WaveSuite automation software and Optical Professional Services to increase network visibility, roll out new services faster, reduce response times for troubleshooting and change requests, and to proactively offer customers services that better suit their needs.





What's the story?

In business for 30 years, this communications company provides voice, messaging, data and converged services to almost 200 million customers in more than 45 countries across Africa.

This includes a range of enterprise services offered through the company's business-focused subsidiary. One key service is a transport optical connectivity solution that allows businesses to use layer 1 and layer 2

services to securely connect their infrastructure, systems and applications across multiple facilities for hosting, disaster recovery and more.

What was their challenge?

Customers that participate in the 24/7/365 global economy now expect the same level of responsiveness from their service providers.

Hyperscalers are some of the key customers for the network operator's transport optical connectivity solution. They order a set level of bandwidth to connect their datacenters to one another and to the rest of the world. The challenge was they had to follow a cumbersome offline process to update their service if their bandwidth requirements changed—either due to a seasonal fluctuation or an isolated spike in demand. It could take weeks or even months for the network operator to fulfill the update request.

While the service provider was confident in their network's ability to provide connectivity anywhere customers wanted it, they were concerned with how quickly they could deploy new services and respond to change requests.

In addition, the service provider's network operations center (NOC) had limited visibility into which optical network service was associated with which customer. Reliance on manual processes meant it could sometimes take days for the NOC to notice an issue with a specific service, and then longer to diagnose and resolve the problem. If a customer contacted network operator to raise an issue, it took the NOC an unacceptably long time to find and start resolving the issue.

While the service provider was confident in their network's ability to provide connectivity anywhere customers wanted it, they were concerned with how quickly they could deploy new services and respond to change requests.



How did the network operator solve it?

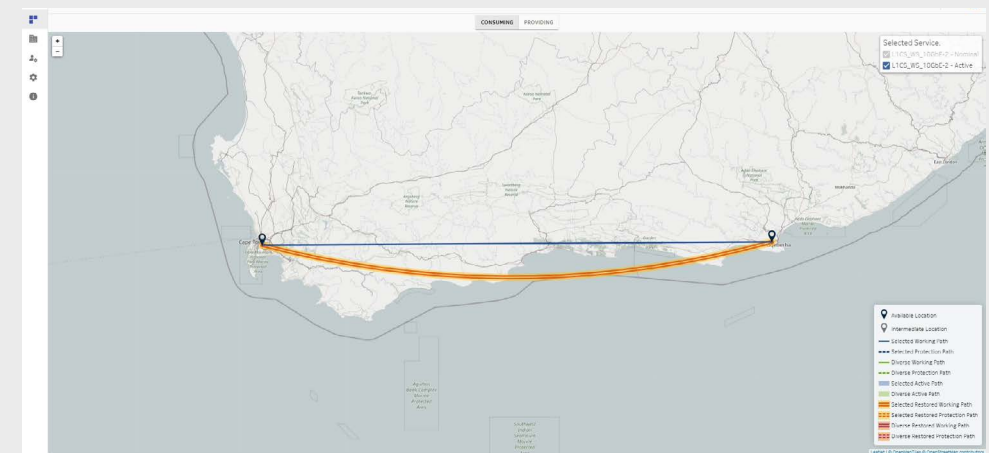
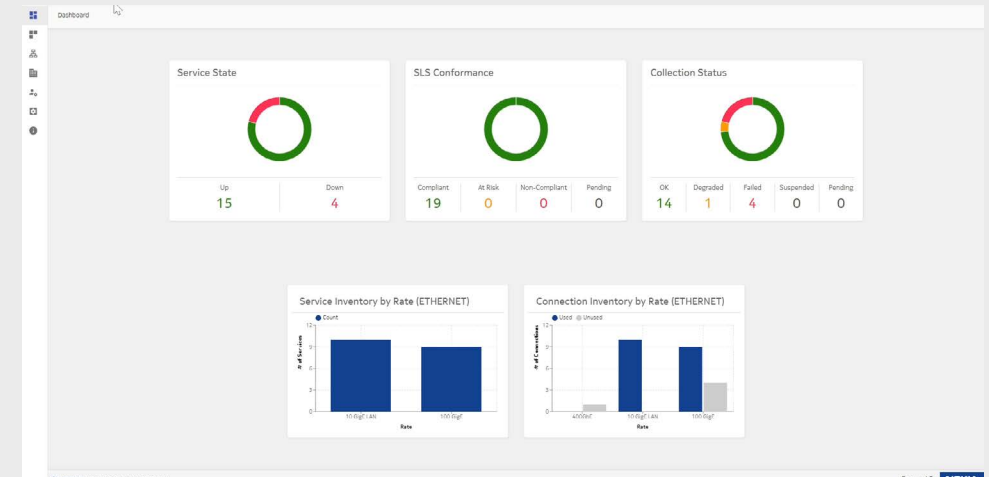
It used software-defined networking (SDN) and automation enabled by Nokia WaveSuite to optimize its optical network and grow revenue.

The company saw an opportunity to differentiate from the competition by providing customers and internal users with unprecedented visibility and insights that would enable them to take control of their optical transport services.

The network operator expanded its adoption of Nokia WaveSuite automation software to include the Service Enablement application and worked closely with Nokia to customize and digitize the process to best address the needs of its enterprise customers.

This included providing customer-specific online portals the network operator's transport optical subscribers can use to view the inventory and availability status of their optical network services, as well as newly advertised service offerings and available locations. Most importantly, the portals enable customers to quickly upgrade their services to higher bandwidth rates and order new services on demand as their connectivity needs evolve.

Examples of high-level SLA conformance status and geographic service topology available in WaveSuite.



What are the advantages?

The network operator used WaveSuite to establish market leadership by enabling customers to gain greater visibility and control of their optical transport services.

The customized portals reduce the time required to order, fulfill, provision, activate and validate service-level agreements on new optical transport services from weeks to minutes.

The network operator found that customers were immediately interested in the new capabilities, with multiple hyper-scalers requesting information on how to add the service to their accounts.

Critically, the network operator can use the WaveSuite platform to get better insights into how its customers are using transport optical services and proactively offer services better suited to their consumption patterns. For example, all services were previously prepaid and charged according to the

bandwidth selected (e.g., 10 Gb/s, 100 Gb/s), and offered no ability to exceed the set capacity. Today, the network operator can offer flexible billing. For instance, customers that have a 40 Gb/s service could be moved to a 100 Gb/s service, but only be charged for 40 Gb/s unless they exceed that capacity.

With Nokia WaveSuite, the network operator was able to automate their enterprise business sales and order intake process and provide customers visibility into their network service inventory real-time. Their customers can now create custom solutions tailored to their own needs, rather than choosing a service defined by the network operator. This provides an advantage for the network operator in their competitive enterprise connectivity market.



Why did the network operator choose Nokia?

Nokia is trusted partner that understands the network operator's challenges and works to achieve a common goal.

Relationship with Nokia goes back to more than 30 years and includes radio access network and core network technology such as optical network terminals, optical line terminals, dense wavelength-division multiplexing (DWDM) technology and IP core products. The network operator has partnered with Nokia to build one of the biggest and most sophisticated optical network deployments in Africa. The company has been quick to deploy the latest chipsets and technology, including Photonic Service Engine (PSE) coherent digital signal processing and Colorless Directionless Contentionless and Flexible (CDC-F) optical line systems.

When the network operator understood that adopting automation would help them to create a more agile network, reduce costs, improve service delivery, and increase revenues, it was natural they include their trusted partner, Nokia, as a prospective automation solution provider.

One of the issues that came up as the network operator went through the process of identifying potential vendors was that they had a multivendor network. They understood that adding software onto existing infrastructure is difficult, however, many of the vendors' proposals involved adding more complexity. Nokia's approach seamlessly integrated a software plane on top of an existing hardware plane, which met all stakeholder needs without increasing complexity and ultimately led to its selection.

The network operator also chose the WaveSuite solution because it provides built-in support for open standards such as Optical Networking Forum Transport APIs (ONF T-API). This support will make it easy for the network operator to integrate WaveSuite with its other network SDN layers, vendor equipment and OSS/BSS applications. These capabilities accelerate the realization of automation use cases using a standardized SDN framework that will drive the network operator's bottom line for years to come.



Nokia OYJ
Karakaari 7
02610 Espoo
Finland

Tel. +358 (0) 10 44 88 000

CID: 213923 (February)

nokia.com

NOKIA

About Nokia

At Nokia, we create technology that helps the world act together.

As a B2B technology innovation leader, we are pioneering networks that sense, think and act by leveraging our work across mobile, fixed and cloud networks. In addition, we create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.

Nokia is a registered trademark of Nokia Corporation. Other product and company names mentioned herein may be trademarks or trade names of their respective owners.

© 2024 Nokia