NORTHPOWER FIBRE
GROWS WITH AUTOMATION

With the goal of giving 75% of New Zealanders fast broadband by end of 2019, Northpower Fibre is one of four companies in the government-funded Ultra-Fast Broadband initiative. By end of 2022 the goal is to reach 87% of the population, so Northpower Fibre knows that they have to expand – fast.

Northpower Fibre uses an open access business model, with more than 20 active retail service providers offering their services in the network. The service providers range from local companies to the largest telecommunication brands in New Zealand. As part of enabling new service providers to deliver their services on Northpower Fibre's network, they have to go through an on-boarding process. This ensures that the technical network aspects have been thoroughly tested, staff have been trained and the Netadmin integration has been configured properly. This will guarantee that the end-customer will always get the services they ordered.

CHALLENGES:
- Managing a high uptake while utilizing a small team and limited resources
- Transitioning from reactive to proactive network operations
- Reducing the need for back office assistance for field resources

SOLUTIONS:
- Strong focus on network automation
- Continuous improvement of performance monitoring capabilities
- Incorporate Netadmin into the existing service-oriented architecture as a network abstraction layer, enabling vendor agnostic provisioning automation and monitoring

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Reactive to proactive network operations

Before Netadmin, most provisioning operations were performed manually. Back then, the majority of orders had new connections and the number of faults was low. With a growing network, the nature of the work changed and today 70% of all provisioning related work is relating to churn rate, reconnects, disconnections and bandwidth upgrades. The number of faults increased in parallel with the growth of the network and the operations team had to adapt to manage the demand.

"It was clear to me that we had to invest in process automation to get out of the fire-fighting mentality and shift into a more proactive network management approach which allows us to focus on 'keeping the lights on' and provide an outstanding customer experience," says Andreas Åström, Networks Manager (Layer 2) at Northpower Fibre.

Automation and in-field provisioning for fiber installers, together with self-service tools such as network diagnostics for service providers, have proven invaluable in managing the daily interactions with thousands of users, without having to increase the headcount.

"The infield toolset has been an important part of the puzzle in reducing the need for back office assistance," Åström says.

Infield automation toolset

One of the first automation features that was released with Netadmin was a smart device-enabled field toolset for fiber installers. The initial focus was to remove the dependency between pre-provisioned services and physical customer equipment (ONT) and provide light level diagnostics. Previously, each individual ONT had to be configured for a specific customer, which was later picked up by the installers at the head office, before going on-site to connect the customer. Both the infield ONT registration process and the light level diagnostics are powered by Netadmin.

Reducing complexity with Netadmin

Netadmin is a central part of Northpower's BSS/OSS landscape and acts as an abstraction layer for the network and a process orchestrator for automated provisioning. The system is used for performance monitoring and collects statistics across all levels of the network.

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Northpower Fibre uses several generations of GPON devices from Calix, routers and switches from Cisco alongside environmental probes and rectifiers in their network. By using Netadmin as a network abstraction layer, other systems in the BSS/OSS landscape don't need to know which access technology is being used or which GPON OLT needs to be configured. The only pieces of information that are required are the location and what services need to be connected; the rest is managed by Netadmin. This creates a clear handover point, where systems such as the order manager don't need to worry about the complexity involved in provisioning a triple play service.

The positive results were clear when Northpower Fibre introduced their latest network device, the Calix E7-2 platform. The open framework provided by Netadmin allows Northpower Fibre to integrate the new product range by themselves and only minor changes are needed in other systems to manage the new GPON products. The only difference between an order in the new vs. the old network is the geographical location and the fact that Netadmin can figure out which OLT needs to be configured by requesting the physical fiber path from the logical network inventory. This led to a fast and hassle-free introduction of the new Calix E7-2 platform.

"We have been able to move fast in terms of automation and growth of our fiber network using Netadmin. We've managed to get a 60% uptake and we didn't need to expand the network operations team," Åström says.

The use of Netadmin has helped Northpower Fibre have a fast fiber rollout and keep up with the demand from the market using a small and agile team. This while introducing new network devices without having to slow down the rollout.

Learn more about Netadmin's solutions at
www.netadminsystems.com/solutions

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