

Case Study: POST Luxembourg

“Nokia’s AI-driven access analytics solution has given us the ability to proactively address issues, reducing customer calls by solving multiple issues in a single intervention and creating overall efficiencies in our troubleshooting process.”

Patrick Rausch,
Senior Project Manager,
POST Luxembourg

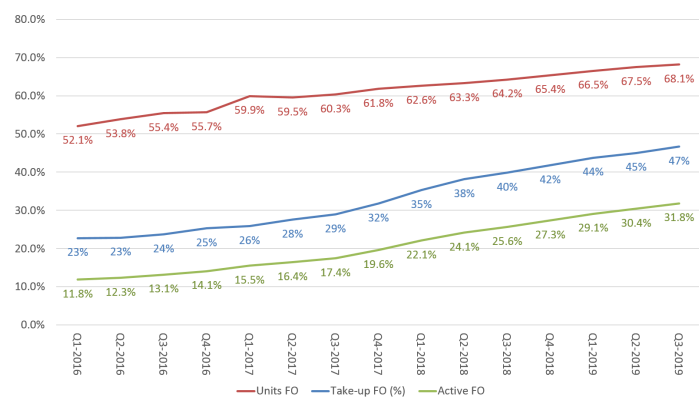


POST Luxembourg utilizes AI insights to improve the home broadband experience

High-resolution video, cloud services and the multiplication of connected devices require higher bandwidth as well as increased reliability. Today, for the copper medium to remain competitive relative to fiber, a similar quality of experience is expected from both an end-user and maintenance perspective.

For example, at POST Luxembourg, a Tier-1 service provider in Europe, the actual number of subscribers using a fiber service is about 30% (See Figure 1). The red curve corresponds to the percentage of the subscribers having their installation ready for fiber (Units FO). The blue curve represents the percentage – among these fiber-ready installations – for which the subscriber has subscribed to a fiber service (Take-up FO). As a consequence, the green curve represents the percentage – among all the subscribers – having an active fiber service (Active FO).

Figure 1. POST Luxembourg's fiber deployment

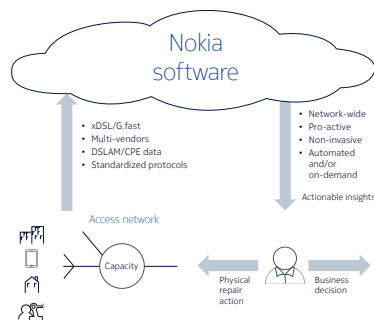


Challenge

POST Luxembourg was looking to improve the overall performance of its copper troubleshooting process to reduce OPEX and improve satisfaction among its customers. It was interested in utilizing artificial intelligence to diagnose impairments affecting the copper medium and in improving the efficiency of its field technicians in order to meet key performance metrics, including:

- Reduce average handling time
- Reduce field dispatch
- Improve first call resolution

Figure 2. Nokia home and access solution

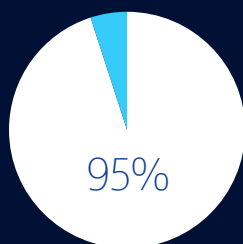


- Nokia's Home and Access Insights software solution to provide proactive analytics and actions to resolve network issues.
- Leverages Deep Learning along with long-term specific domain expertise to deliver complete, highly accurate and reliable actionable troubleshooting insights.

The results

95%

Results of field validation campaign indicated that Field staff received correct and/or helpful diagnosis in 95% of the cases, together with the prediction of the capacity loss as well as the outstanding overall reliability.



■ Helpful ■ Needs improvement

The solution

POST adopted Nokia's Home and Access Insights software to provide proactive analytics and actions to resolve network issues. The solution leverages deep learning along with domain expertise to deliver complete, highly accurate and reliable actionable troubleshooting insights. Such capabilities are exploited to perform proactive network diagnosis and for any xDSL/G.fast technologies. It is vendor agnostic, non-invasive and collects the required data via standardized protocols either from the DSLAM or CPE side.

POST Luxembourg ran a field validation campaign in their production network for several months, whereby different diagnosis insights and the troubleshooting recommendations were shared on each field technician's tablet app. Field staff reported that they received correct and/or helpful diagnosis in 95% of the cases, together with the prediction of the capacity loss as well as the outstanding overall reliability.

The outcome

Nokia's home and access insights solution has enabled POST Luxembourg to meet their objectives in terms of OPEX savings and performance enhancements in many ways, including:

1. Field staff gain visibility on all DSL impacting problems before and during resolution and receive recommendations in terms of next best actions to efficiently restore the service. This reduced both Time-to-Repair and truck rolls as agents were able to resolve issues on the first call.
2. With an accurate, pro-active and network wide diagnosis capabilities, POST Luxembourg now has visibility on all issues that could be affecting subscriber lines, saving truck rolls and reducing averaging handling time
3. The overall troubleshooting process has been transformed into an AI-driven automated process, simplifying the human effort at each step.

As service providers look to maintain the performance of their copper networks as fiber catches up, ensuring a positive subscriber experience remains paramount. Nokia's work with POST Luxembourg is just one example of how service providers are gaining valuable AI driven network insights to support proactive issue resolution for their subscribers.

To find out more, please visit our website at:

<https://www.nokia.com/networks/solutions/home-and-access-analytics/>

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