NOKIA

FTTH Connection & Activation

Faster, smarter and better

White paper

Communication service providers (CSP) are facing the challenges of connecting FTTH customers to meet time, cost and quality targets. Nokia NBCM (Network Build Control Management) service portfolio provides an innovative solution to orchestrate the home connect and service activation process. It brings Nokia's global experience to help you connect your customers faster, smarter and better.

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Introduction

Global fixed broadband subscribers will continue to grow in the next few years. Total subscriber lines are expected to surpass one billion by the end of 2020, of which almost 20% of households will have wireline broadband speeds of 100 Mb/s or more. Rolling out fiber-to-the-home (FTTH) underpins such a growth, with next-generation fiber technologies such as XGS-PON and DOCSIS 3.1 being adopted by telcos, cable operators and other service providers to bring faster speeds to the market.

In FTTH deployments, the complicated process and hidden cost associated with connecting each user and activating services for them are often overlooked. Typical questions CSPs have are:

- What is the best solution in my situation to effectively connect and activate customers?
- What capabilities do I need to be ready to scale?
- How do I control the cost and speed of the rollout and have an end-to-end view?
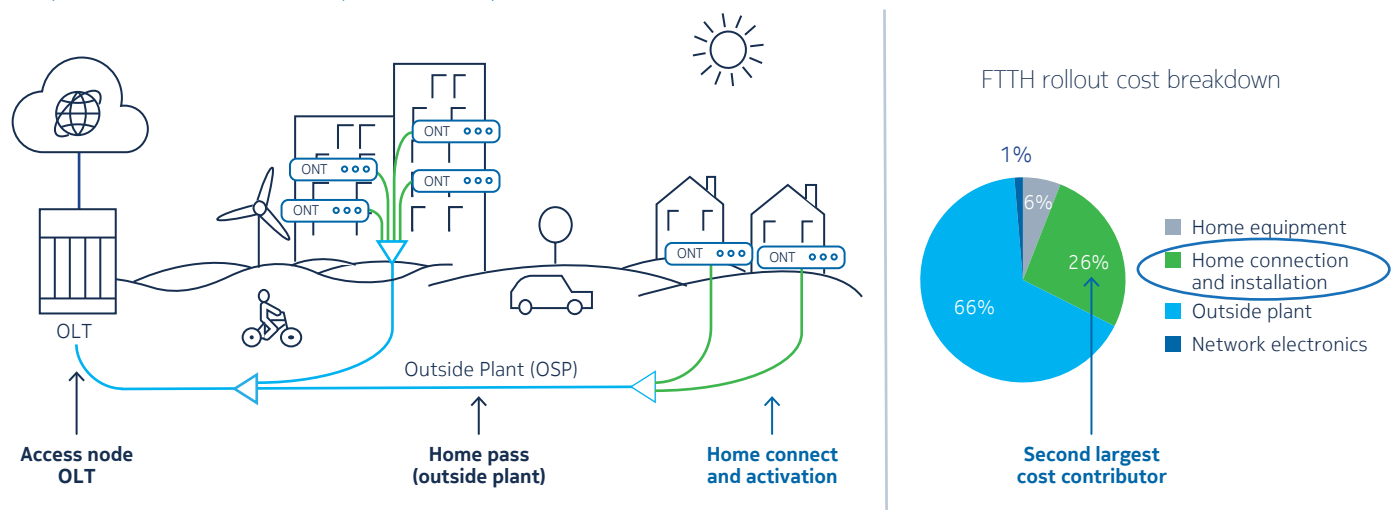- How can I ensure the quality of home activation and customer satisfaction?

As a global technology leader, Nokia has been closely supporting our customers in the battlefield of FTTH rollouts. Our Network Build Control Management (NBCM) service portfolio crystalizes invaluable lessons from these rollouts with the aim of bringing our successful experience to benefit more customers.

This whitepaper provides the following perspectives:

- Why home connection and activation are so important to your business
- The typical challenges in FTTH home connect and activation
- The features and benefits of the Nokia Home Connect & Activation service

Why home connection and activation are important

Why is home activation important for your business?

FTTH rollout cost breakdown

- Home equipment
- Home connection and installation
- Outside plant
- Network electronics

1%
6%
26%
66%

Access node OLT

Home pass (outside plant)

Home connect and activation

Second largest cost contributor

In every FTTH network, there is the active part (OLTs), the passive part (outside plant), and the home connect and activation part (active and passive).

Home connection and activation normally come at the last stage to integrate all the active and passive network elements that have been deployed and connect each individual user by bringing the fiber (final drop) into apartments and houses, validating the end-to-end fiber path, connecting ONTs, and then activating services on top.

This is the time when years of investment can finally bear fruit. Talking about investment, our study shows that 26% of the total FTTH rollout cost is in home connection and activation. This is an important part of the network rollout project and is also critical to the long-term success of your business.

What are the challenges?

Delivering new services over a point-to-multipoint (P2MP) fiber network is not an easy task. Common challenges are with data centralization, automation, reporting, engineering compliance, knowledge, and subcontractor management.

Centralized data · Subcontractor management · Knowledge · Automation · Reporting · Engineering compliance
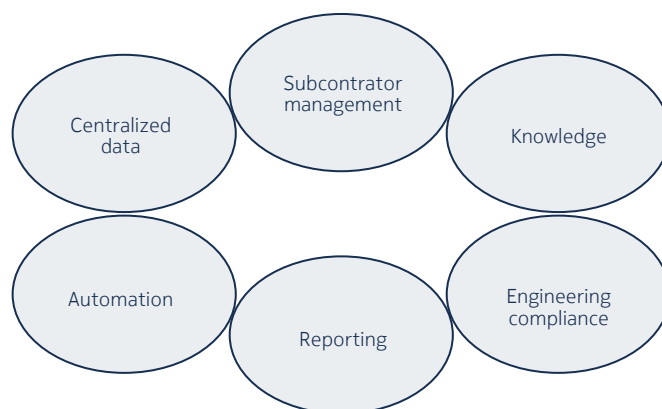
1) Centralized data

After years of a network build, it is time to connect users. However, if data is segmented, siloed or misaligned, the progress of home connection and service activation will meet hiccups and delays and the cost to rectify these mistakes will be high.

2) Automation

Home connection and activation is an activity that is repetitive in nature and large in scale. Small efficiencies here and there in the process because of unnecessary human interaction or lack of automation will add up to a large impact on cost, speed, and quality.

3) Reporting

When multiple teams are working in a geographically distributed area, especially at a national level, and when each team and technician holds their own offline status, the time and cost to collect their progress, generate accurate reports, detect bottlenecks and track their KPIs will be disproportionally high.

4) Engineering compliance

Whether connecting ports on splitters, installing final drops outside or into homes, or validating end-to-end fiber attenuations, there are rules to follow and standards with which to comply. If shortcuts and workarounds made onsite are not detected, approved or documented, they will compromise the value of the infrastructure and increase future network operation and maintenance costs.

![NOKIA](NOKIA logo)

5) Knowledge

At each individual home level, connecting fiber and activating services appears quite straightforward. But managing and controlling it at a large scale requires unique professional knowledge which takes years to accumulate. Especially when things go wrong, debugging and troubleshooting requires the mastery of both passive and active knowledge. This knowledge does not come easily in any organization.

6) Subcontractor management

Subcontractor management is always a big topic in any network rollout project, but it is especially so with home connection and activation because subcontractors are dealing with your customers. The quality and professionalism of their work have a direct impact on customer satisfaction. Assigning subcontractors in a timely and efficient way, and validating their work properly also have an immediate impact on the project performance.

When considering these challenges, some CSPs may look for a tool or build a new system. This becomes another costly pitfall because, ultimately, it is the knowledge and experience in controlling and automating the process that differentiates a successful rollout from the rest.

Nokia Home Connect & Activation

Nokia offers you a service that comes with our knowledgeable team and automated tooling to tackle the challenges of home connection and activation. Nokia Home Connect & Activation is designed to fit flexibly into your organization and boost your project so that you can get your customers on your network faster, smarter and better.
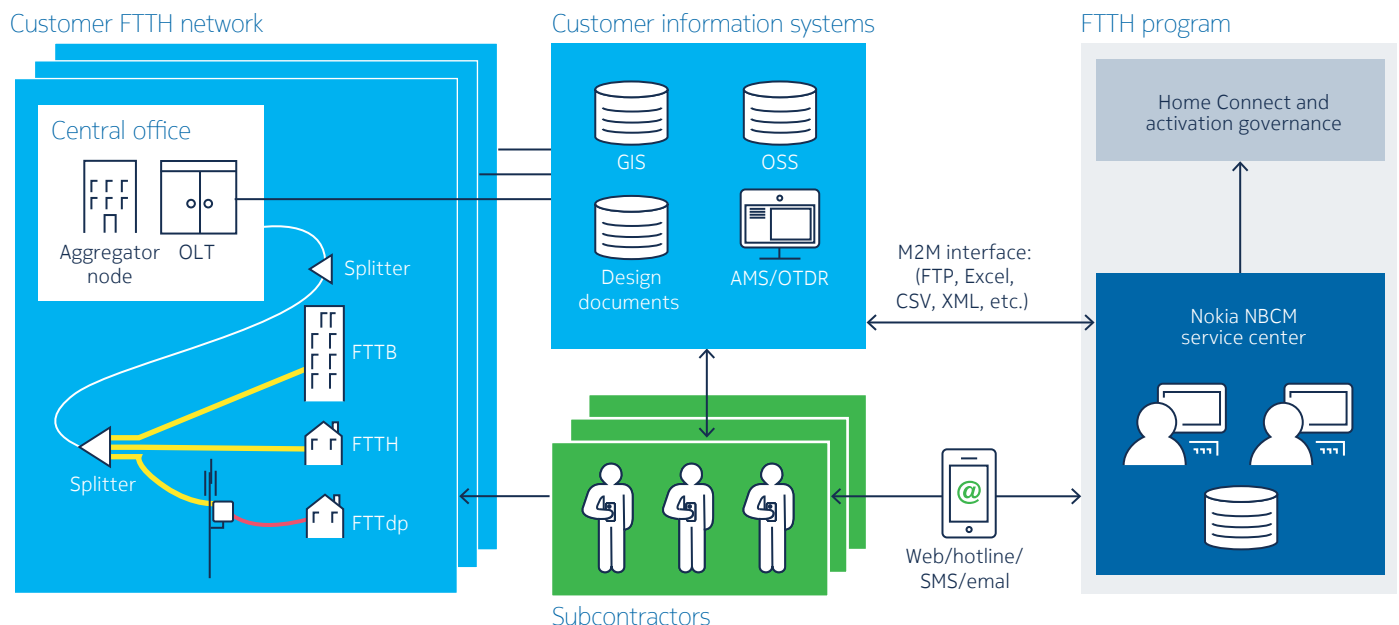
Nokia Home Connect & Activation is one of the NBCM service use cases focusing on connecting and activating FTTH users. It is a process control and rollout management service.

- Our service team will bring their **experts, knowledge and experience** to you, helping you set up or improve the home connection and activation process, identify and address the gaps. Our people are also responsible for executing the process and reporting the results to you, so you can stay focused on driving business growth.

- Our **automated tooling** connects with your database, connects your teams, automates workflows, controls the process, validates the outcome, and provides accurate and timely reports for governance.

- The service is responsible for an array of **control activities** and can be flexibly tailored based on your needs:

  - Home pass audit and validation (ready-for-sale)

  - Validate orders from your IT systems

  - Schedule and assign work orders to field technicians

  - Schedule appointments with customers

  - Provide user-initiated scheduling and re-scheduling

  - Activate the service

  - Monitor and support the site installation

  - Report the completion of the order and update your IT systems

  - Fiber optical path validation (link certifier),

  - Site access management

  - Customer satisfaction survey

  - Track and report KPIs and progress

Service benefits

Nokia understands the pain points and challenges of connecting and activating FTTH customers. We have defined our service in a flexible way to meet your dynamic needs and generate quantifiable value for you.

We do not replace your teams and tools: we identify gaps and become part of your process and organization to make your home connection and activation process better, smarter and faster.

Conclusion

In a competitive market, the speed of customer connection and service activation determines the success of your business. Therefore, you need a dependable team to tackle the challenges coming with it. Nokia Home Connect & Activation service brings our expertise, experience, knowledge and automated tooling to enable centralized control and automated workflow management. It is flexible to set up, scalable to run and cost-effective to have, reducing rollout costs up to 30% and accelerating revenues up to 25%. With Nokia, you will be able to accelerate FTTH deployments and reap the benefits of your investment faster.

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About Nokia

We create the technology to connect the world. Only Nokia offers a comprehensive portfolio of network equipment, software, services and licensing opportunities across the globe. With our commitment to innovation, driven by the award-winning Nokia Bell Labs, we are a leader in the development and deployment of 5G networks.

Our communications service provider customers support more than 6.4 billion subscriptions with our radio networks, and our enterprise customers have deployed over 1,300 industrial networks worldwide. Adhering to the highest ethical standards, we transform how people live, work and communicate. For our latest updates, please visit us online www.nokia.com and follow us on Twitter @nokia.

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