



Alcatel-Lucent ONT Easy Start Solution

Accelerate time to market with automated
FTTH service provisioning



Operators are looking to reap the benefits of the latest innovations in GPON fiber-to-the-home (FTTH) technologies. They want to offer more bandwidth and better services but for this to happen, they first need to connect the customers—a more complicated challenge than might be expected.

FTTH networks are shared so the location of the ONT isn't automatically known once the terminal is connected. That's why a technician must currently make a site visit to ensure the ONT is connected to the right customer and that the right service package is applied. As a result, connections for new FTTH customers and ONT upgrades for existing customers involve many steps. The project manager must plan and schedule the activation, field technicians have to visit the site, and customers need to be at home—a real inconvenience. Adding to the challenge, provisioning of the ONT takes time and can introduce errors when done manually.

This is where the Alcatel-Lucent Optical Network Terminal (ONT) Easy Start solution makes all the difference. By automating a multi-step and complex process, the Alcatel-Lucent ONT Easy Start solution speeds up, simplifies, and transforms FTTH provisioning into a virtually error-free process.

With Alcatel-Lucent ONT Easy Start, operators can speed installation and accelerate time to market. By remotely automating FTTH subscriber connections, operators get improved quality of service, fewer truck rolls and, most importantly, increased customer satisfaction.

Radically simplified activation

Alcatel-Lucent ONT Easy Start is an automated GPON provisioning solution that speeds time to market while dramatically changing the OPEX and QoS equation. Operators benefit from:

ACCELERATED TIME TO MARKET

- ONT can be shipped to customer or picked up from store
- Subscribers are connected more quickly
- ONT is automatically configured
- Appointments for on-site installer no longer needed

REDUCED COSTS

- If fiber is already installed, no truck rolls are needed for new service activation
- Truck rolls for ONT replacement are avoided
- Lower cost of customer care due to automated and simpler self-provisioning

IMPROVED QUALITY OF SERVICE

- First time right activation—automation reduces the number of errors
- Customer self-provisioning—subscribers are happier when they can do it on their own time without need to schedule an appointment with a technician



Figure 1. Key benefits of the ONT Easy Start

Three-step set-up process

The ONT Easy Start set-up process is as simple as it is effective. Figure 2 shows what the end user sees—whether they are the technician or the customer.

1 Set up subscription



2 Connect ONT and Login to web portal



3 Test and activate ONT automatically

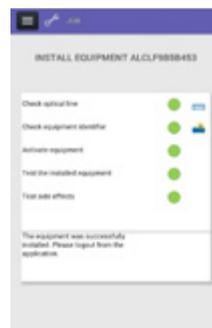


Figure 2. Three-step self-installation

1. SET-UP SERVICE

The customer receives a letter from the service provider that indicates the user name and password. Later, the ONT is shipped separately or picked up from the store. Depending on the set-up option chosen, the activation uses one of the methods below:

- **Using a 3G wireless connection:** the ONT unit is accompanied with either a QR code or a bar code that takes the user directly to the ONT activation web portal. Scanning the QR code or barcode automatically populates the ONT serial number in the login screen to reduce input errors
- **Using a local connection:** Using a physical or WiFi connection, the PC is connected to the ONT. By opening a browser, the user is taken directly to the web portal where the serial number is automatically retrieved to reduce input errors.

QR CODE



BAR CODE



CAPTIVE WEB PORTAL



Figure 3. Self-activation methods

2. LOGIN TO WEB PORTAL

The web portal has three fields. Once populated, they connect the ONT to the right customer and service package. In all set-up methods—QR code, bar code, and captive web portal—the serial number is retrieved automatically. The customer (or technician using the optional Motive Field Tech Console) needs only enter the user name and password and verify the serial number.

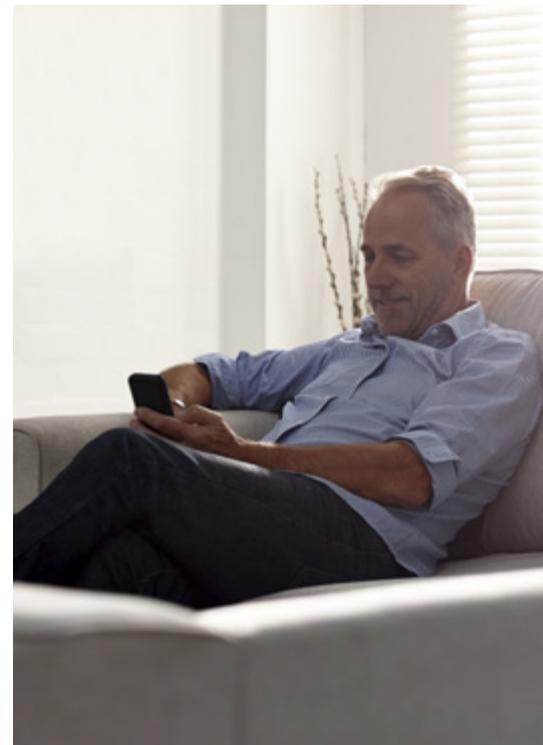
3. TEST AND ACTIVATE ONT

With a single click, the customer (or technician) performs basic ONT testing, Layer 2 ONT configuration, and optional basic line testing. Additionally, the ONT software gets downloaded and activated.

ONT Easy Start use cases:

1. When new FTTH customers don't have fiber: The technician goes to the home to install it, and uses the ONT Easy Start with the optional Motive Field Tech Console to provision the service—getting it right the first time.

2. When existing FTTH customers are already on fiber: Once the customer receives the ONT, the customer performs the ONT upgrade using a self-serve web portal.



Solution components

The ONT Easy Start solution relies on several network components. To start, a full FTTH network with optical line terminal (OLT) at the central office, as well as an ONT with the end user are needed. Layer 2 provisioning is performed by the (EMS) system while optionally Layer 3 is provisioned by the access management system (ACS). Additionally, inventory systems, customer relationship management systems, and other components may interface with the solution. Lastly, the operator's OSS/BSS needs to communicate with all these components. Taken together, the management of these disparate components is quite complex.

As illustrated in Figure 4, the Alcatel-Lucent ONT Easy Start end-to-end solution simplifies everything. There is no need to connect the operator's system to each solution component. The operator's system need only interface with the Motive Service Management Platform (SMP) for ONT activation and replacement. For its part, SMP will orchestrate all other components. The solution also includes a web portal with an easy-to-use interface that automatically creates a job ticket for tracking.

The Alcatel-Lucent ONT Easy Start provisioning is managed as follows:

- **Layer 1, Layer 2**—by the 5520 AMS/5529 APC on the Alcatel-Lucent Intelligent Service Aware Manager (ISAM) providing all management needs for configuration, maintenance, and troubleshooting through an intuitive GUI.
- **Network Element**—by the 7360 ISAM FX at the operator's central office and the Alcatel-Lucent 7368 ISAM ONT at the customer premises.
- **Service activation**—Motive Self Service Console (SSC) provides an intuitive, graphical interface for subscribers to manage set-up.

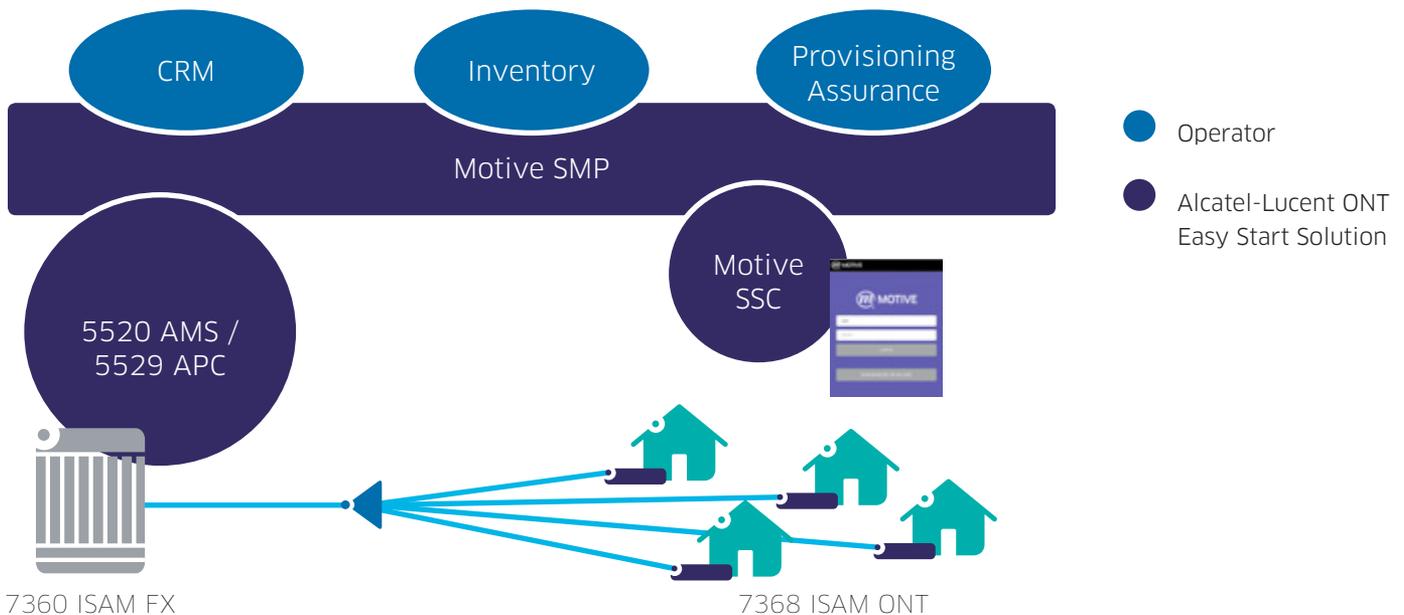


Figure 4. ONT Easy Start solution components



Additional components

MOTIVE NETWORK ANALYZER-FIBER (NA-F)

A cost-effective, remote management solution for fiber access networks, the Motive NA-F allows operators to perform additional line testing to ensure the quality of the fiber connection before provisioning the ONT. This software tool helps reduce operating expenses, increases activation success rates, and improves the overall customer experience.

MOTIVE FIELD TECH CONSOLE (FTC)

The Motive FTC can be used to handle the tickets created in case of an error during installation. Additionally, after first time installation of the ONT, the Motive FTC allows field technicians to validate the installation and identify quality levels before leaving the customer premises. During installation or repair activities, the console also provides real-time data for technicians working on optical signal processing fiber, distribution panels, or home wiring. In addition, it helps to avoid and detect accidental impacts to neighboring subscribers on the same PON.

MOTIVE UNIVERSAL DEVICE MANAGER (UDM)

The Motive UDM automatically handles Layer 3 provisioning for the ONT. Motive UDM efficiently and effectively provisions and manages a wide range of devices across multiple domains, including mobile, machine-to-machine (M2M), Enterprise/IMS, converged fixed/mobile, and WiFi.

Alcatel-Lucent Professional Services has developed an ONT automation blueprint. It describes each module, the activation flow, and how it can work for your network.

Why Alcatel-Lucent

Alcatel-Lucent is the worldwide leader in fixed access technologies, with over 20 years of industry leading broadband experience. Operating in over 130 countries, Alcatel-Lucent has shipped over 18 million Gigabit-capable Passive Optical Network (GPON) ports in over 180 fiber projects worldwide. Alcatel-Lucent powers some of the most advanced fiber networks around the world deployed by leading telecom service providers, as well as cable multiservice operators and municipalities. Alcatel-Lucent enables these and other customers to build a competitive advantage, enhance end user experiences, and accelerate the move to a digital society. The addition of the ONT Easy Start solution to the fixed access portfolio allows GPON FTTH network operators to more quickly and cost effectively activate and upgrade their customers. And, for those choosing the pre-integrated ONT Easy Start solution—with all optional components—time-to-market is accelerated even more.

For more information about how Alcatel-Lucent can contribute to your success, contact your nearest Alcatel-Lucent partner.