AGORA

**Network Management
Solution for
Altice Labs products**

Simplify Network Operations

Complete management experience

AGORA is a modular, scalable and multi-user platform offering a centralized view of a network, created by multi-technology devices. AGORA allows an efficient and effective management of network resources according to the operators' business goals.

Scalable and flexible

AGORA is the Altice Labs Network Management Solution (NMS) that manages Altice Labs product lines for state-of-the-art technologies, such as xPON, G.fast, MPLS, Ethernet, minimizing capital investments at the Network Operational Centers (NOC). It also manages legacy Altice Labs products for technologies such as PDH, TDM, ATM, SDH and xDSL.

Offering a suite of GUI applications, AGORA aims to provide a set of key features for all network management operations like network provisioning, maintenance and monitoring, providing all FCAPS functionalities (Fault, Configuration, Administration, Performance and Security). Integration with third-party management/information systems is also assured through a standardized set of Northbound Interfaces (NBI).

AGORA runs on LINUX, over general purpose HW, and it's layered by a modern Java EE stack and a top GUI layer supported by current industry web standard technologies. Given the diversity of markets and businesses, AGORA may be customized in order to meet each client specific needs via a modular and scalable package delivery system.

AGORA architecture is based on software-defined networking (SDN), offering different kind of virtualized views of the network domain that it controls and manages and that can be exposed for other SDN controllers or applications through APIs.

Who benefits from it?

Network Operators
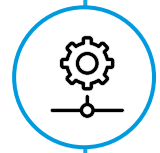
Engineering Teams

End Customer

Key differentiators

Scalable
Performance and reliability guarantee

Programmable
Easy integration with third-party systems

Modular
Customized to each client needs

Simple
Abstraction of all the existing complexity

Business benefits

AGORA provides several key benefits, from single technology, single user, low processing requirements to high availability, geo-redundancy and multi-technology management scenarios. It is able to drastically reduce operational costs and increase efficiency by delivering a real-time end-to-end service provisioning along network infrastructure, allowing fast detection of network faults and QoS degradation.

- **Complete Management and Control solution** of multi-technology and multi-service provisioning;

- **Easy integration and programmability** through external and standard interfaces (APIs) that cover the full FCAPs dimensions and deliver virtualizations of the underlying network domain, so that the OSS and other external Applications or higher hierarchy SDN Controllers can actually "program the network";

- **Flexibility** to create any kind of script for massive operations in order to offer an easier and faster operation depending on client needs;

- **OPEX reduction** provided by network operations simplifications;

- **Scalable** solution;

- **Easy and attractive to work** through a user-friendly GUI.
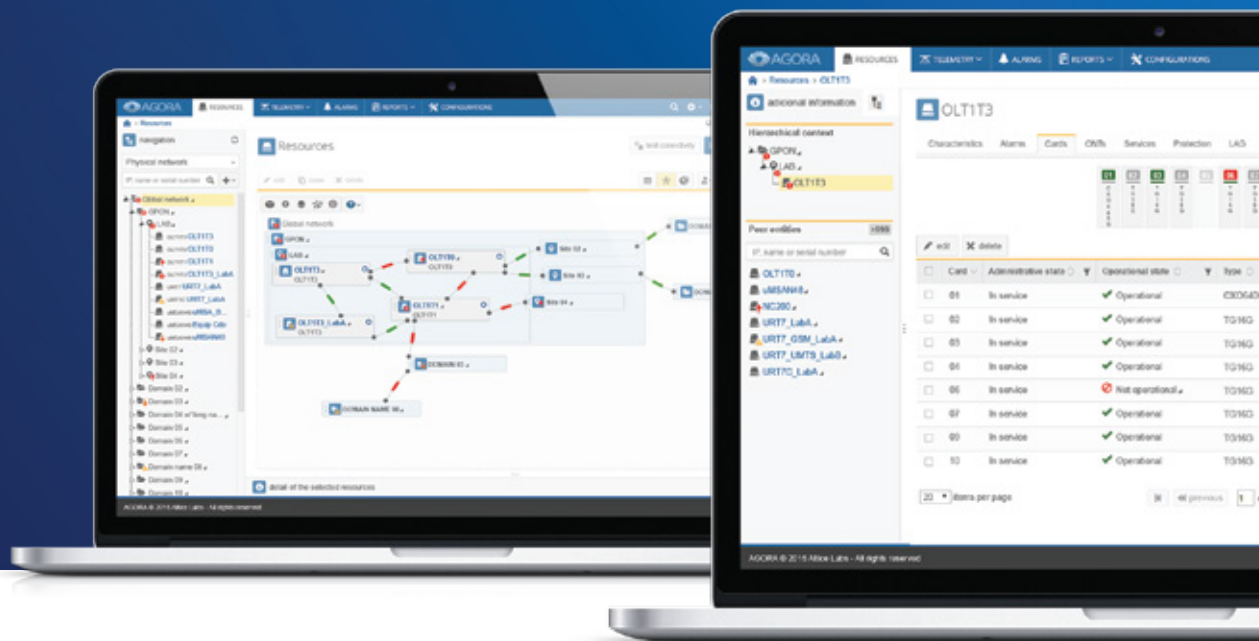
Solution architecture

The AGORA NMS is composed by different applications and components, as represented in the following architecture, which complement each other to achieve a full management experience. It provides a simplification and abstraction of the Network Elements, offering several services and a complete set of tools, which can be exposed to higher order Applications such as OSS or even external SDN applications. These APIs cover the full FCAPs dimensions (Fault, Configuration, Administration, Performance and Security). The GUI interface allows a direct access to AGORA by the operator, allowing a user-friendly provisioning and monitoring of the global managed resources.
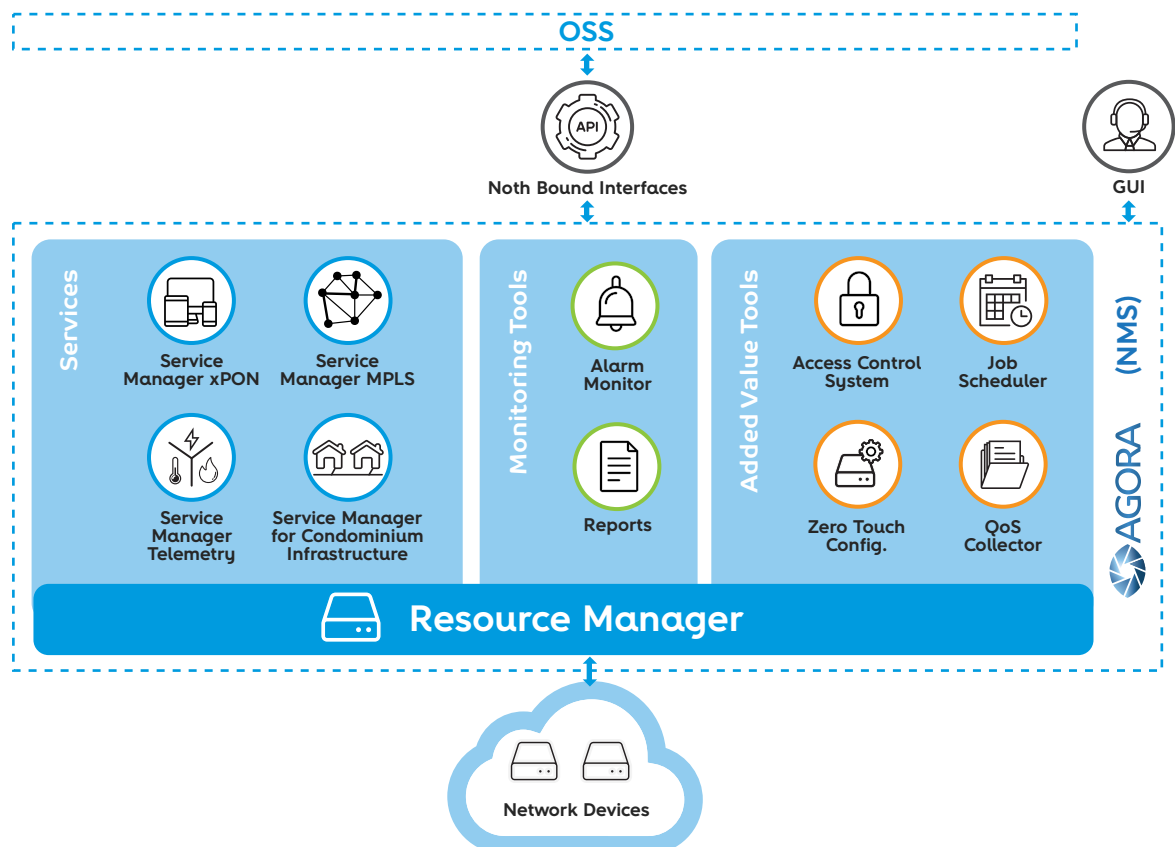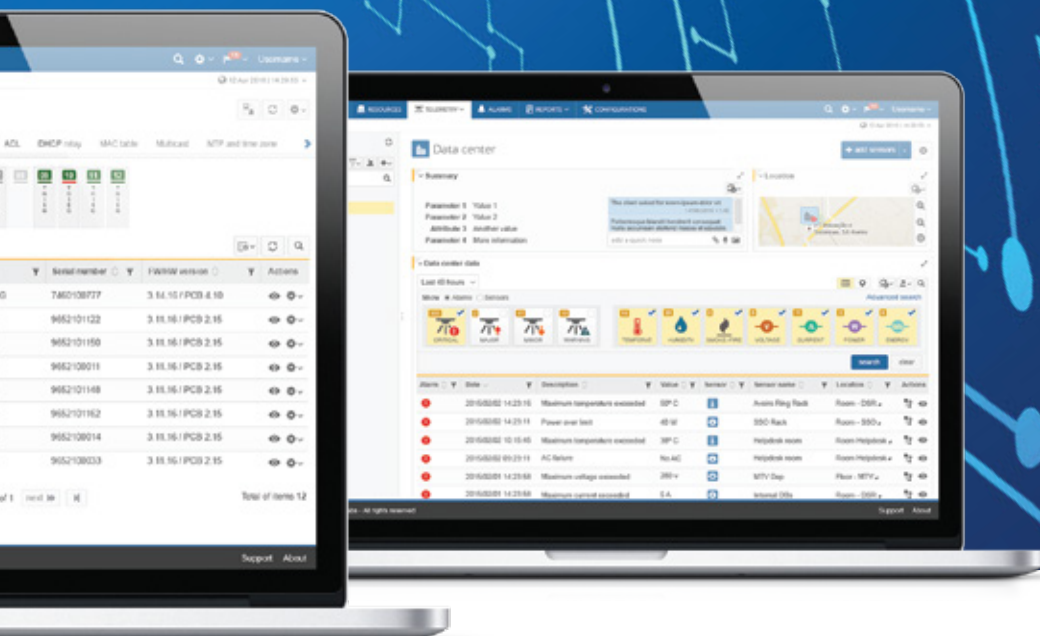
Boost xPON solution with AGORA
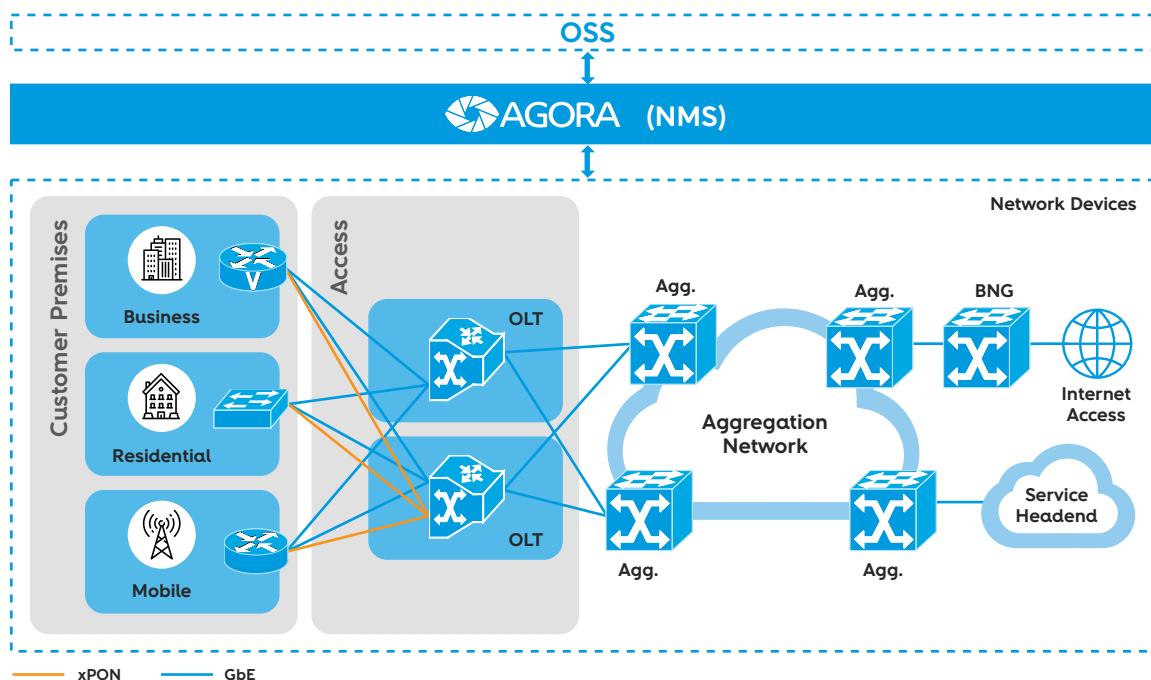
Product components

Resource Manager – Configure and monitor all resources

- Resources configuration, state and utilization management
- Resources inventory management
- High granularity authorization control
- Firmware manager
- Information resilience and recovery

Helping customers around the world

Service Manager xPON – Global resources configuration and monitoring
- Support of access technologies such as GPON, NGPON2, G.fast and others
- Resources abstraction (PMA and PMAA)
- Simplified service model
- Bulk operations

Service Manager MPLS – e2e Service Provisioning
- MEF oriented services (point-to-point, point-to-multipoint and multipoint-to-multipoint services)
- Path computation over a mesh network, offering path rules management
- Path protection provisioning
- Link bandwidth availability

Service Manager Telemetry – Environmental control
- Support of multiple sensor types
- Location management
- High level integrated dashboard

Service Manager for Condominium Infrastructure – Intelligent condominium
- High technology abstraction
- Infrastructure management
- Services management (service providers and residential services)

North Bound Interfaces – Integration | Programmability
- Full featured management API
- REST based with JSON objects
- Easy integration and network programmability

GUI – A user centric interface
- User-friendly web interface
- Simple, intuitive and coherent for an easy and fast learning
- Flexible and efficient, focused on network configuration and monitoring

USA
France
Portugal
Morocco
Russian Federation
Pakistan
India
Cape Verde
S. Tome and Principe
Angola
East Timor
Dominican Republic
Brazil
Namibia
Mozambique

Alarm Monitor – Network alarms monitoring
- List of pending alarms with severity and acting urgency information
- Quick and advanced filters and search capabilities | Alarm fields setup
- Alarms actions (Detail | Acknowledge | Unacknowledge | Close | Comment)
- Rules creation (SMS, e-mail, etc.)

Reports – Network inventory
- Inventory, alarms, performance and user auditing reports
- Basic and advanced filters for easy custom result views (tabular and graphical)
- Report scheduling and customization
- Multiple file export formats (PDF or CSV)

Access Control System – Authentication service
- Authorization, authentication, accounting (AAA)
- Single Sign On
- Centralized management of users and their access rights profiles

Job Scheduler – Operations scheduler
- Periodic task execution management
- User defined system scripts
- Cron trigger based

Zero Touch Configurations (ZTC) – Home Gateway Provisioning
- Automated CPE configuration procedure
- XML/Text based CPE template files

QoS Collector – Quality of Service
- Continuous collection of performance data

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About Altice Labs

Delivering key telecommunications technologies since 1950, Altice Labs has been shaping the future of technology, enabling Communications Service Providers and Enterprises to offer advanced and differentiated services to their customers and users.

Altice Labs is an innovation and transformation catalyst supported on a strong and dynamic Innovation Ecosystem. Through technology, we are committed to improve people's lives and the way in which companies do business.

www.alticelabs.com