NOSSIS One
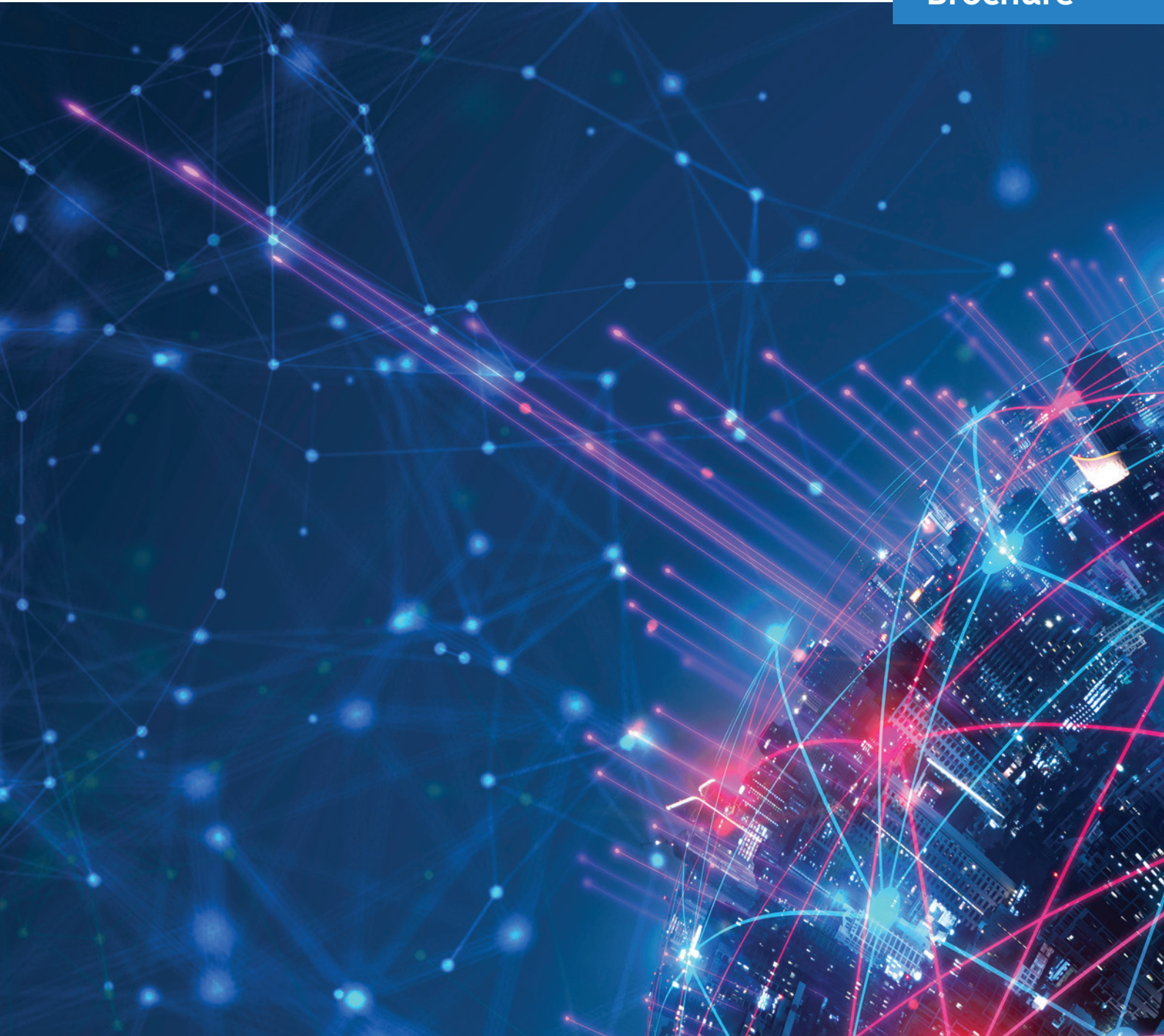
Enabling Autonomous Operations

Transforming Operations Support Systems

Operators should ensure the automation of their processes, while they get real-time insights about their network, their services, and the quality of customer experience. They also look for autonomy to their operations, building a future proof cognitive ecosystem that enables proactive or near real time actuation, reducing the service impact or even avoiding it.

New generation of Operations Support Systems (OSS) must:
- be **cloud native** to scale dynamically;
- be multi-technology, multi-vendor and multi-service to achieve a **cross domain** operational management;
- support **new technologies**, namely new 5G networks, including virtualized networks (SDN, NFV);
- expose **Open APIs** to be easily integrated with other systems;
- implement **AI/ML models** and algorithms to improve the traditional rule based models, providing rich data insights for a fast and automatic actuation on the network and services.

About NOSSIS One

Being the Altice Labs offer for OSS domain, NOSSIS One is a complete OSS "best of bread" suite following the market best practices for this area.

With a cloud-native, open, and modular architecture, NOSSIS One exposes standard APIs, and provide off-the-shelf multi-technology packs for a large number of network vendors, to enable a fast integration with the ecosystems where it operates.

NOSSIS One supports the main operational processes covering the Inventory, Fulfilment, and Assurance functional areas, being ready for traditional telco (fixed, mobile) networks, IT networks, and even new virtualized ones.

Using AI/ML across multiple domains, NOSSIS One enables automation, bringing autonomy and streamlining the operations.

Fulfillment

Network Development and Inventory

Assurance

Customer Problem Management

Performance Management

Fault & Problem Management

High flexibility and **cost-effective** solutions built in a cloud-native platform

Complete OSS functional areas enabling **Closed-Loop** operations

Time-to-market delivery speed supporting new services and technologies

AIOps
Powering Smarter Operations

Ready for **5G** and **virtualization**

Smooth and fast integration through Standard APIs

OPEN API CERTIFIED

NOSSIS One main goals

Unified e2e Processes for multiple technology & business segments (B2B, B2C)

Cross domain orchestration, for networks (traditional and virtualized) and for services

Intelligent decision mechanisms, using data sensing and knowledge learning

Autonomic **closed control loops**, based on AI/ML data insights to ensure efficient resource usage and service availability

Cloud native architecture, supported by microservices and **open APIs** for fast integration

Multi-technology, **multi-vendor**, **and multi-service** data sensing and actuation, to enable a best Quality of Experience(QoE)

Ability to promote **operational efficiency**, reducing costs while increasing speed and agility

Engineering Teams

Operational Teams

Customer Support Teams

Cloud Management Teams

who is it for

Autonomous operations

Autonomy is the ultimate step on the evolutionary path of the operations. The goal is to be able to implement a full automatic and autonomous cycle (sense, analyze, decide, and act) across multiple network domains and services without the need of human intervention. NOSSIS One helps operators to pursue and follow this path, addressing the new challenges of elasticity and agility needed to simultaneously support new network technologies and adapt to an always-evolving ecosystem of new network interactions and business rules adaptation. With a cognitive layer powered by advanced AI/ML analytics over live data, NOSSIS One addresses what is happening, why is happening, and recommends what needs to be done.
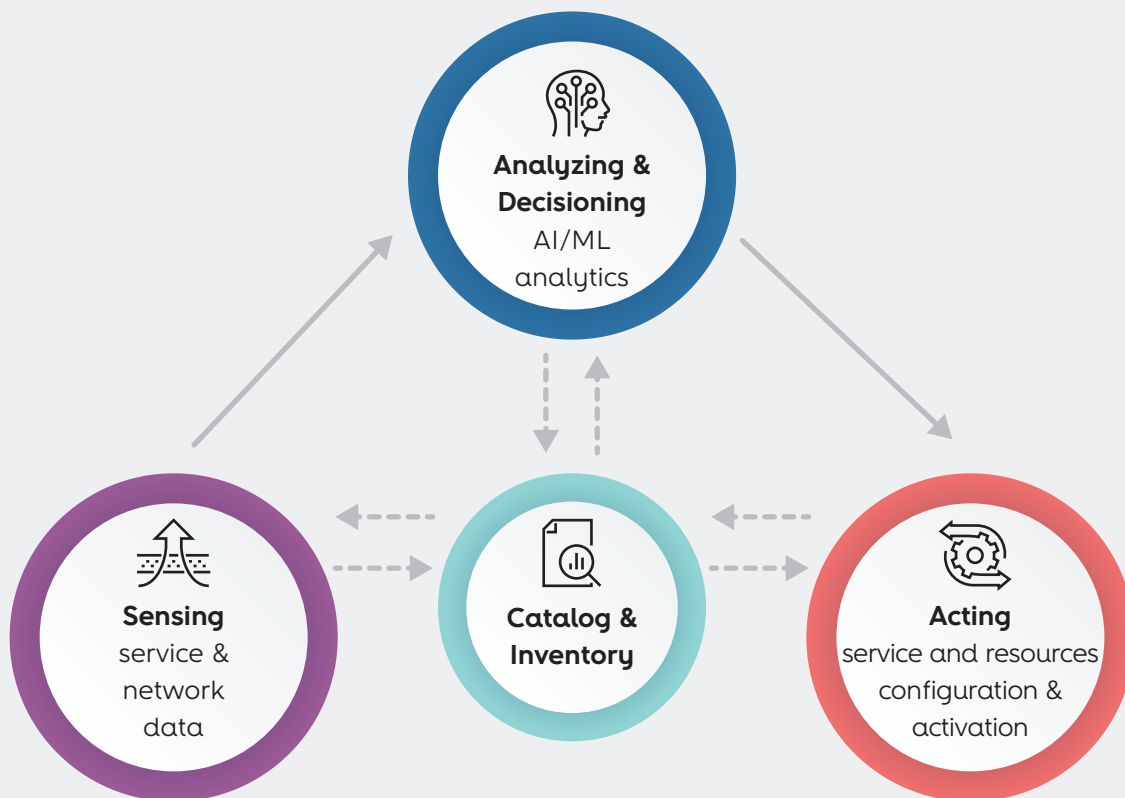
An automated orchestration enables the creation of services across different network domains and, combined with analytics AI, allows full closed loop automation, therefore reducing network and services' operation costs, minimizing human intervention, and implementing self-healing, all while proactively fixing any detected problems.

Functional highlights

NOSSIS Fulfillment
- Resource Activation
- Network & Service Orchestration

NOSSIS Assurance
- Test & Diagnostic
- Fault Mgmt.
- Monitoring & Performance Mgmt.
- Problem/Ticketing Mgmt.

nossis one

NOSSIS Inventory
- Network Design & Construction
- Network & Service Inventory

| For B2B, B2C and FiberCO | For Physical and Virtualized Network | For multi-service, multi-technology and multi-vendor |

nossis one
fulfillment

NOSSIS Fulfillment coordinates the full range of technical provisioning activities with an **orchestration of complex cross-domain** services over traditional telco networks as well as SDN, NFV, and cloud. It manages both automatic and manual activities, ensuring the correct delivery of a service or group of services (bundle). It relies on a modular architecture that allows fast onboarding of new services, through a catalog driven approach and the use of exposed APIs that enable fast integrations. NOSSIS Fulfillment provides multiple Out of the box (OOTB) packs for vendors and technologies.

nossis one
inventory

NOSSIS Inventory provides a converged network inventory of multi-technology(FTTx, xDSL, HFC, mobile xG, WDM, Ethernet, IP,..) and multi-service (B2C and B2B), also ready for new virtualized networks. It provides intelligent network development tools, for efficient design (e.g. FTTx) and deployment of new (physical) infrastructures, enabling service feasibility, reservation and allocation of resources in provisioning processes. It also provides a centralized and unified catalog to support all services and resources/assets, enabling rapid onboarding of new service offers.
NOSSIS Inventory is a master system for centralized inventory, location, resource and service management, providing up-to-date information and real-time data through APIs for operational activities and automated processes.

nossis one
assurance

NOSSIS Assurance covers all processes and activities for problem management, fault management, and quality of service areas.
It enables a 360° visibility of customer facing services, resource facing services & resources malfunctions and performance, through fully automated fault monitory, performance monitory, and diagnostics. Also integrated Problem Management is available for case escalation and resolution. This transversal monitory of services and resources, is added of an intelligent automation for root cause analysis, and QoS degradation analysis, restore, mitigation or escalation.
Based on real/near-real time monitoring and intelligent analytics it enables automated closed-loop decisions, enhancing both Customer Experience and Operational Efficiency.

Telco Operations powered by NOSSIS One
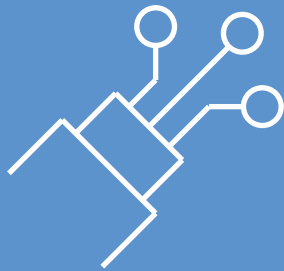
Multi-tenant FiberCo' operations

The fiber infrastructure market is growing and changing the modus operandi of telecommunication companies, which are now separating their fiber businesses to increase market value by creating FiberCo. As wholesalers, and to succeed, FiberCo operations must be agile, automated, support multi-tenancy across processes, and be cloud-native to allow the much-needed flexibility enabling 'pay-as-you-grow' models.

NOSSIS One modules (Inventory, Fulfillment, and Assurance) can work together supporting the challenging operations of a FiberCo that need to integrate quickly and easily with their tenants, allowing them to carry out queries and operations only over the resources of their network domain.

some use cases

There are several paths and steps for each organization that lead to digital transformation. Despite being a Tier1 or a small ISP operator, the transformation requires digital technologies to change business processes and projects.

NOSSIS One can support you with a smooth and phased transition, with SaaS models, cloud deployments and systems adjusted to the steps, priorities and needs of each operation, enabling end-to-end management of processes, supporting new virtualized technologies as well as older ones. With a highly scalable architecture, it allows you to stay confident as you grow supported by a pay-as-you-grow model.

As a member and signatory of the TM Forum's ODA and Open API Manifestoes, Altice Labs is committed to providing their customers and the market with a state-of-the-art, future-proof OSS solution.

Making digital transformation lighter
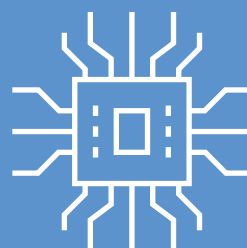
Telco Operations powered by NOSSIS One

Operating 5G Networks

5G is here and driving new use cases that need to be supported very quickly.

NOSSIS Fulfillment, supported by NOSSIS Inventory, will allow the end-to-end establishment of services, coordinating their provisioning and life cycle throughout the different domains. These domains can address 5G, core or RAN, but also legacy network or service platforms, adding value and enabling composed service offers. NOSSIS Fulfillment sets up all the required elements for 5G, whether it's physical or virtual, including 5G core, access, transport network, service platforms and cloud services, regardless of being instantiated at datacenters or CCO.

NOSSIS Assurance gathers and analyzes data to predict and address potential issues, anticipating proactively potential service impacts. Also AI/ML algorithms are used to enhance operations for better efficiency. These abilities can support and empower advanced 5G services, like next-generation private networks, combining 5G with private and public clouds, as well as network slicing and other differentiated offers.

some use cases

Designed to support engineering, operations, and business teams, the Network Development and Inventory module (NOSSIS Inventory) provides a complete E2E vision and management of inventory, whether infrastructure, network, or services. It is responsible for the plan, design, construction, and inventory functions of networks and services, which enable it to support all Fulfillment and Assurance processes.

NOSSIS Inventory includes all levels of information, from the inventory of physical resources associated with infrastructures (Outside Plant and Inside Plant) to the logical levels of service management, thus providing an E2E overall coverage. It also provides tools for network planning and design, service feasibility, reservation and resource allocation supporting the end-user service provisioning.

Network E2E Inventory management - from Design to Service
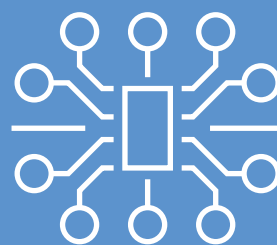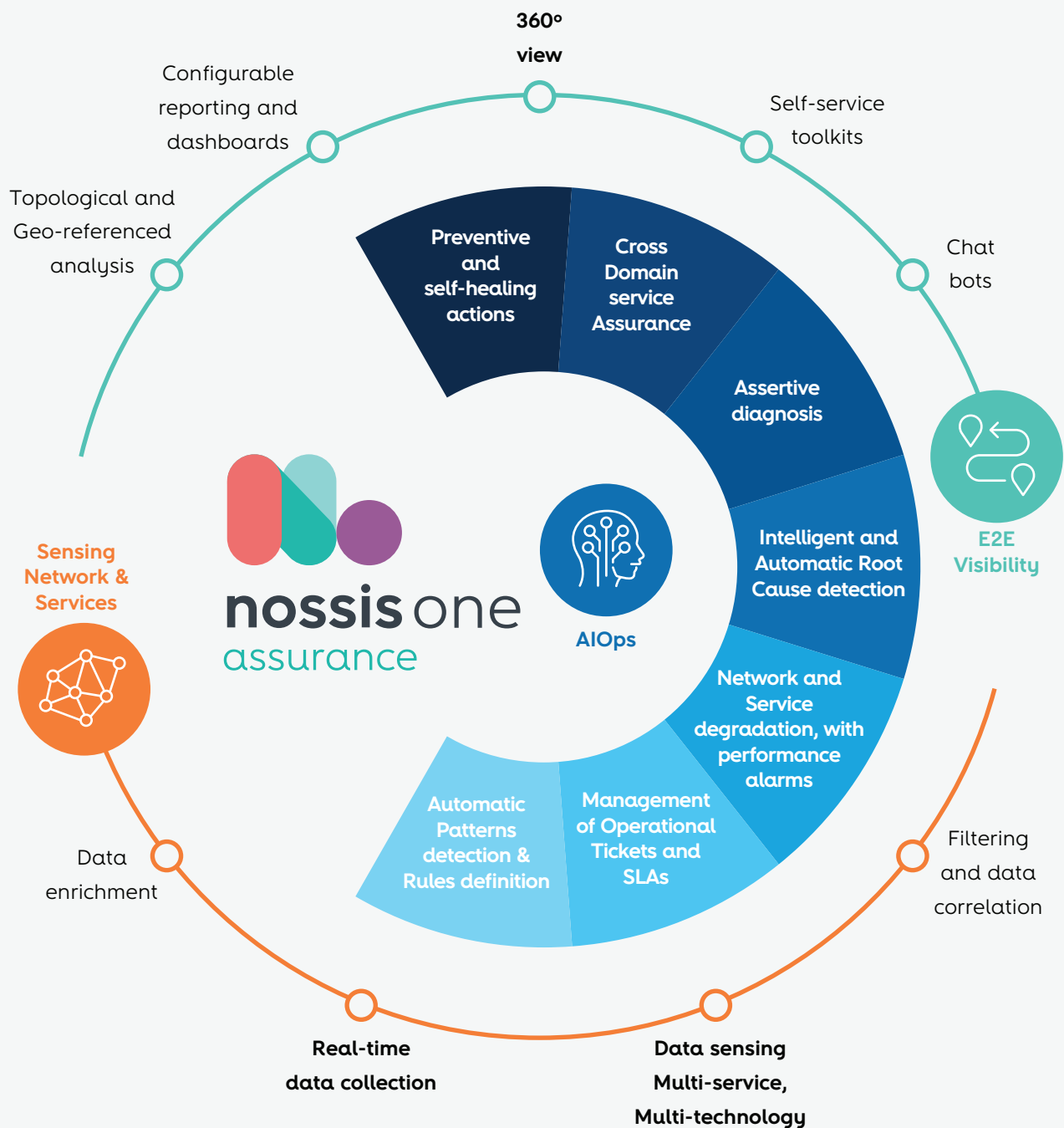
Telco Operations powered by NOSSIS One

Enhancing Customer Experience

NOSSIS Assurance manage complex multi-technology and multi-domain networks giving priority to the customer experience.

With NOSSIS Assurance module you can get the excellence in E2E visibility providing your teams with assertive diagnostics, accurate Performance KPIs and alerts, Automated Root cause detection and Operational Tickets, and SLAs management, leveraging and/or anticipating the real time service alarm. With powerful configurable dashboards and an intelligent AI/ML engine it provides insights that enable an automatic preventive and self-healing actuation, closing the loop.

some use cases

Preventive and self-healing actions

Cross Domain service Assurance

Assertive diagnosis

Intelligent and Automatic Root Cause detection

Network and Service degradation, with performance alarms

Management of Operational Tickets and SLAs

Automatic Patterns detection & Rules definition

nossis one assurance

AIOps

360º view

Configurable reporting and dashboards

Self-service toolkits

Topological and Geo-referenced analysis

Chat bots

Sensing Network & Services

E2E Visibility

Data enrichment

Filtering and data correlation

Real-time data collection

Data sensing Multi-service, Multi-technology

NOSSIS One around the world

Germany
United Kingdom
France
Portugal
USA
Dominican Republic
Outremer Territories
Cape Verde
Israel
Outremer Territories
Angola
Brazil
Mozambique
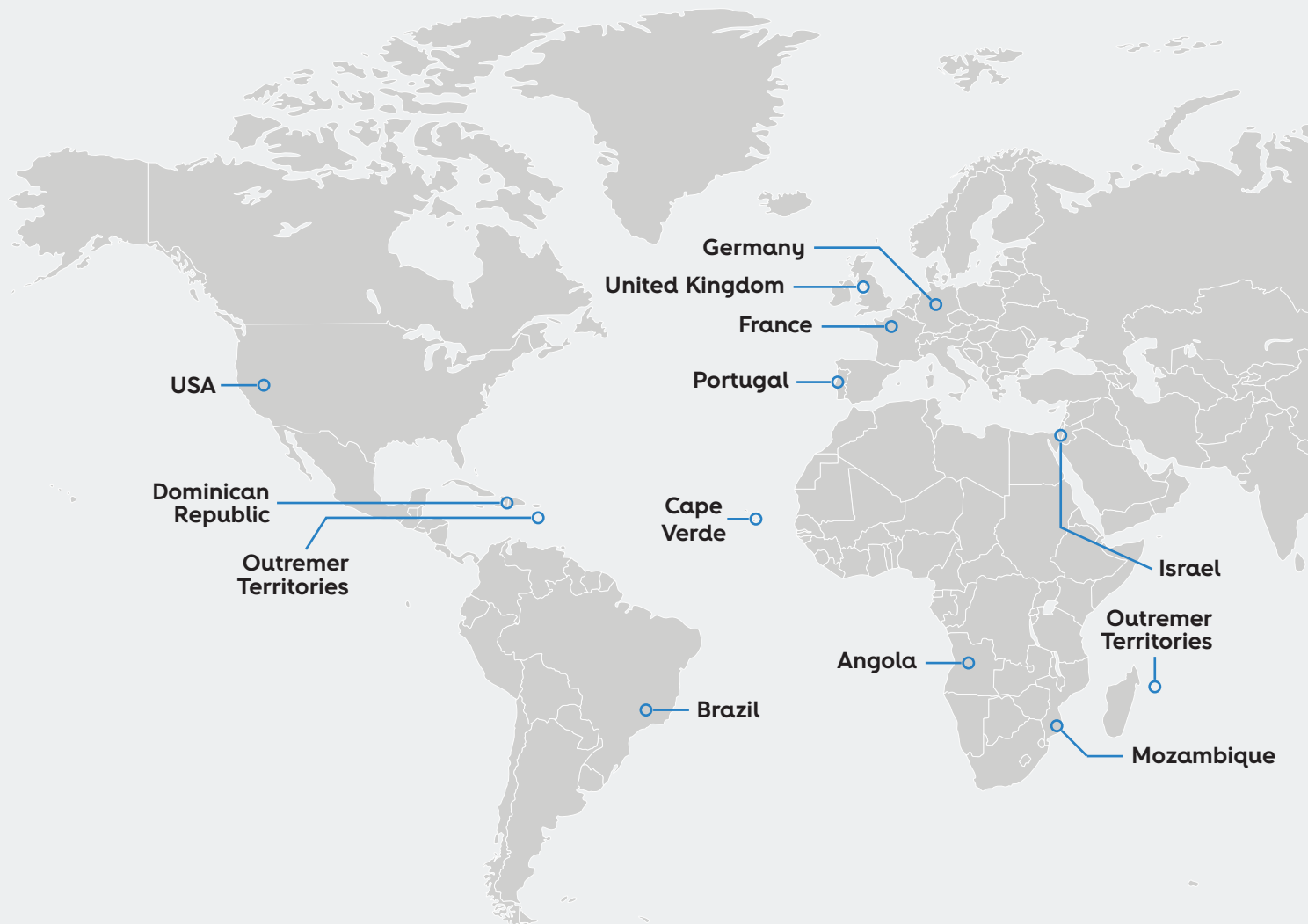
50M FTTH Home Passed (HPs)

25M Alarm events/day

4M Service configurations/day

4.500M KPI/hour

East Timor

Service portfolio

We are aware of the operations' importance in your business, so we provide services to help you run them smoothly and effectively. With a vast experience in OSS business, we provide the best practices in the market to improve your operational response.

Consulting
- Analysis of best practices regarding operational processes;
- Planning strategic and transformation processes;
- Improving network performance and quality.

Operation
- 24/7 resources monitoring, and incident management;
- Security, Suppliers, and Change management;
- Continuous performance and cost optimization.

Support and maintenance
- Global and local support;
- 24h/7 helpdesk care service;
- On site operations assistance experts.

Deployment
- Project management;
- Design, development, integration & test, go-live and roll-out.

Training services
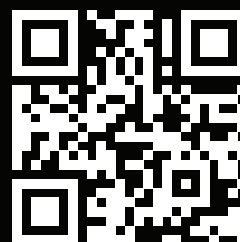- Classroom and e-learning packages;
- On-site "hands on" training.

altice labs

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Learn more about
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