



AFR-IX telecom

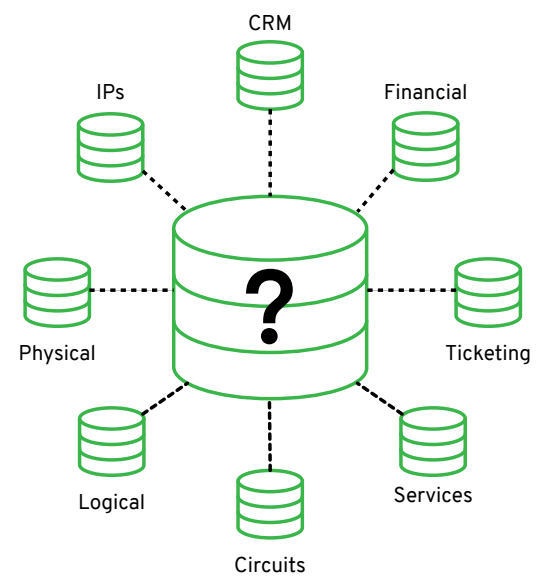
Adopting CROSS for inventory consolidation to support automated operations and rapid network expansion across Africa

Keeping pace with rapid network expansion

AFR-IX telecom is an up-and-coming operator that delivers Data, MPLS, SDN, and advanced Managed Solutions to International Carriers, Enterprises and local operators in Africa. The licensed operator that counts with the most reliable Metro Ethernet Pan African Network, headquartered in Barcelona, Spain, has been experiencing rapid growth, recently investing over \$6 million in new infrastructure to build an advanced Cisco-based network and extending their coverage across Africa, Europe, and the Americas. With fiber cables spanning continents and oceans, AFR-IX has points of presence (POP) in over 50 countries, and they have no plans of slowing down.

To keep pace with their expansion, AFR-IX began the search for a modern, centralized inventory solution that would grow with them and serve as their network's *single source of truth*. An upgrade from their previous open-source system would ensure all inventory and network data scattered across their multi-domain, multi-vendor systems, and various spreadsheets, which included historical data dating back almost a decade, could be effectively consolidated and correlated.

AFR-IX's accelerated organic growth, coupled with several mergers and acquisitions over the years, has come at the cost of a steady collection of data warehouses covering many networks and geographies – a common by-product experienced by fast-growing operators whose network growth outpaces the capabilities of their original OSS/BSS architecture.



Seeking a single model of the network

However, in AFR-IX's case, they prudently understood that without a single coherent model of the network, their transition toward intelligent, automated operations would be an uphill battle and potentially stunt future growth. Further, it would prolong their dependence on manual, time-consuming operations carried out by a handful of network specialists, many of whom are not always readily available for support.

AFR-IX also understood that the ability to immediately know what assets exist in the network and how they are allocated to deliver services was fundamental to the successful execution of their most important day-to-day tasks, such as accurately quoting services, performing root cause analysis following an outage, or checking for available resources when responding to a service request.

The need to consolidate and upgrade their inventory system was no longer an option, it was a must.

Integrated, extendable, and dependable

AFR-IX required a complete inventory solution that could not only capture an accurate, unified model of their existing network, but it needed to easily scale as well. More importantly, the system needed to align with their strategic goals to automate operations, involving inventory to seamlessly integrate with external systems and workflows.

Such a system would, at a minimum, need to:

- Integrate all network equipment and locations from existing systems, including their catalog of services/IPs, circuits, links, and any other historical data.
- Build a complete, end-to-end model of the network, consisting of multiple networks across geographies.
- Include an Open API with which to run incremental updates and reconcile data from network systems, and integrate inventory into the wider OSS/BSS environment on-demand.
- Pull alarms from monitoring systems and perform immediate root cause and service impact analysis.

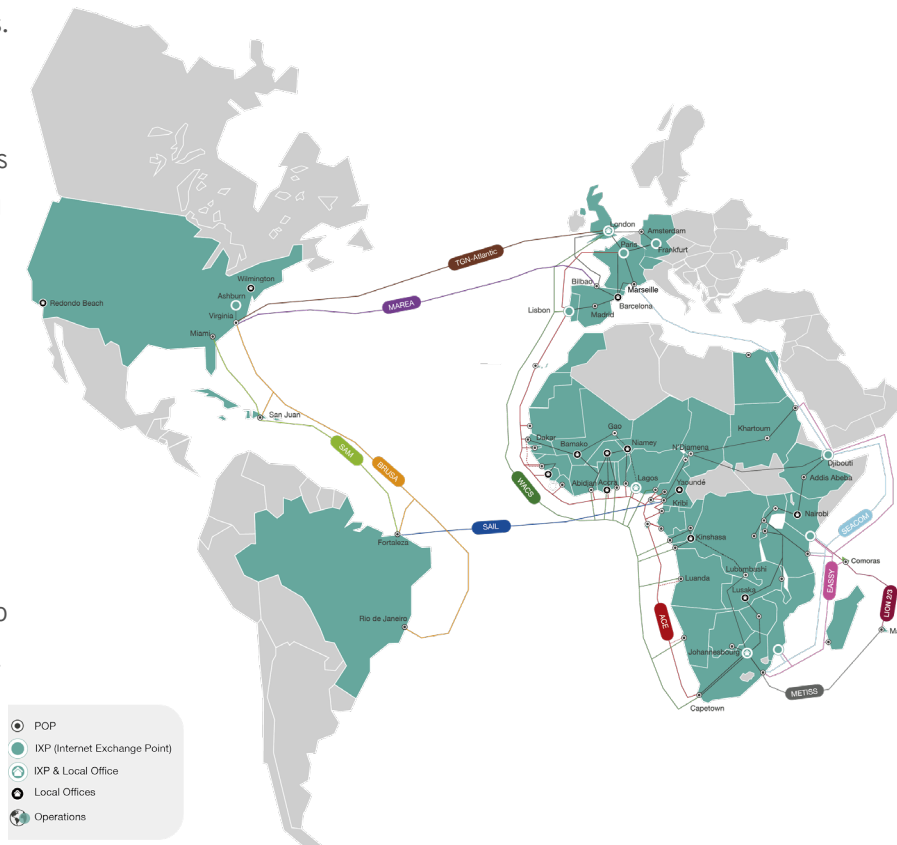
- Be competitively priced, with a quick and smooth implementation.

Knowledgeable partner and proven implementation methodology

In June 2020, AFR-IX selected CROSS as their single inventory solution of choice, with Realworld Eastern Europe (RWEE) as the key partner and system implementer. Many factors contributed to the final decision, including a close alignment between requirements and system capabilities, as well as the unique and extendable CROSS data model. Realworld's deep knowledge of CROSS, understanding of the customer's vision, and their proven ability to successfully deliver projects played an important role too.



The implementation was designed to deliver the solution in three phases, with each phase emphasizing the integration of a specific domain into CROSS. This methodical approach would ensure the network was correctly built from the bottom up, rectifying gaps and inconsistencies in the data, capturing all historical data, and correlating assets across network layers.



Expanding connectivity globally

It would also provide a gradual, low-risk transition away from their existing legacy open-source system and cumbersome spreadsheets.

The project was divided into the following phases:

- Phase 1 – Loading equipment and sites
- Phase 2 – Loading circuits and links
- Phase 3 – Loading IPs and services

Expectations, outcomes, and benefits

With CROSS, AFR-IX was able to (and will continue to) modernize and simplify their inventory record, ensuring a single coherent model of the network is available to support all teams, systems, and workflows across departments and geographies. As of August 2021, the project is still in progress, with the first phase completed and the second underway.

Many of the system's most important modules are already live and in use, including Circuit, Locality, and Insight, allowing the solution to deliver immediate benefits throughout its implementation.

For example, CROSS has already helped AFR-IX reduce their mean-time-to-repair on network faults and quoting new services from hours to minutes. An Open API ensures data is synchronized across the IT architecture and regularly updated, and it also provides them with the control and flexibility to seamlessly move data between systems as they please – both in and out of CROSS.

With CROSS, the AFR-IX Network Operations team has a robust, modular inventory tool that will grow alongside them. It will enable them to respond more rapidly and accurately to troubles in the network, to support their commercial teams better when quoting services, and unlock opportunities to be proactive and agile when planning, for example by optimizing resource capacity, service contracts, and more.

These benefits will be further realized and extended in the future when CROSS is fully implemented and integrated into the wider OSS/BSS environment, which includes sales and order management systems, with automation planned as an additional step to support zero-touch processes.



www.cross-ni.com
info@cross-ni.com

About CROSS Network Intelligence

Founded in 2014, CROSS Network Intelligence (CNI) is an international team of telecom professionals dedicated to delivering industry-leading OSS/BSS solutions. The CNI team has extensive domain and technical expertise, both from the customer and vendor side, from companies such as GE, Vodafone, Ericsson, T-Mobile, BT, Oracle, Cisco, IBM, and more. CNI is supported by a strong network of global partners.

