

CUSTOMER CASE STUDY

Telefónica

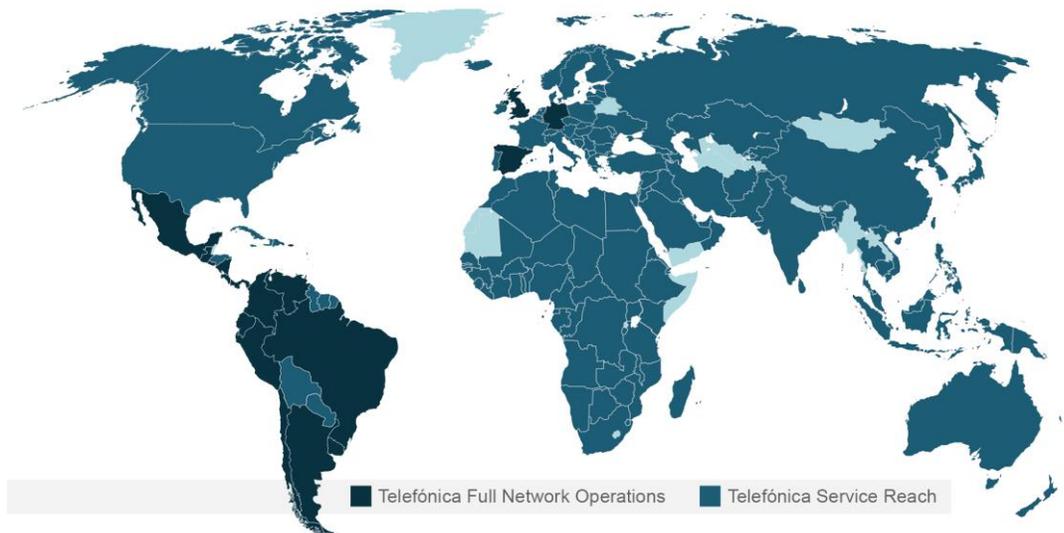


Type of Company: Global Telecommunications Provider
Specialty: Mobile, Fixed, and Broadband Network Services
Accedian Solutions: SkyLIGHT Performance Assurance Platform, Nano Smart SFP Modules, 1GbE and 10GbE Network Performance Elements

Telefónica Standardizes Globally on Accedian Performance Assurance Solutions to Enhance Customer QoE

A Global Focus on Quality of Experience:

With a significant presence in 21 countries around the world, telecommunications provider Telefónica boasts a customer base of more than 341 million business, mobile and residential customers. In addition to services under the Telefónica banner, its global reach includes three major regional brands: Movistar in Spain and Spanish speaking Latin America, O2 in the U.K. and Germany, and VIVO in Brazil and Portugal.



Global Telefónica commercial presence map

Accedian has worked closely with Telefónica since early 2012, initially with the VIVO team in Brazil, extending to Movistar properties throughout Latin America, operations teams and technical teams in Germany and Spain, and then globally with the CTO office in Madrid.

A big part of Telefónica's LTE (4G) growth strategy relies—interestingly enough—on improving reliability of their 3G network. Because smartphones and 4G data packages are priced at a premium, expectations are high as users migrate to LTE. Few subscribers realize that voice calls are still carried over 3G. Since the customer's perception is that they're on a new network, QoE has to be excellent for both voice and data to ensure users who upgrade have an exceptional experience, regardless of which network technology carries their connection.

3G delivers data where LTE coverage is limited, too, so this older infrastructure must also provide the best possible broadband as users become data-centric, always-connected

subscribers. Therefore, whether for data or voice, optimizing 3G service quality is key to improving and accelerating the return on investment (ROI) of LTE build-out.

Although more critical in Central and Latin America—where 75% of subscribers are prepaid voice users without a data plan—accelerating subscriber transition to LTE is a key objective across all of Telefónica’s operations, globally.

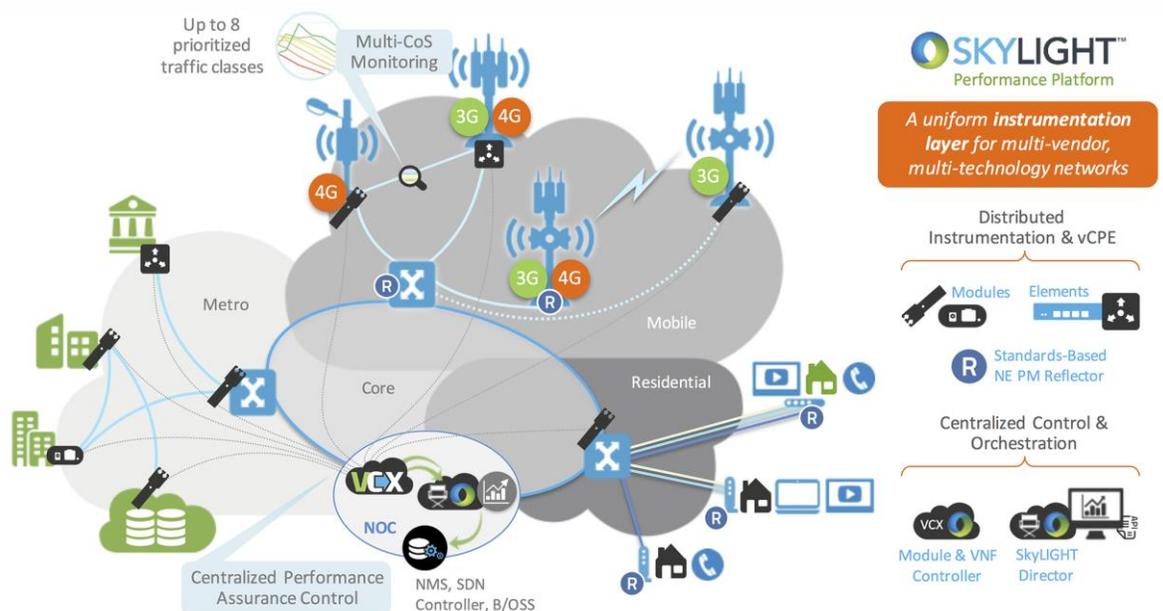
To realize this goal, Telefónica turned to Accedian for a performance assurance solution to deliver a new level of customer experience to mobile subscribers. As their operating regions became familiar with the real-time QoS visibility offered by the Accedian platform, they began using the same solution to assure enterprise-grade business services connectivity, data center access, wholesale Carrier Ethernet, and residential triple-play offerings. Accedian now provides performance assurance for all key services delivered across Telefónica’s global network.

Unified Performance Assurance

Accedian’s performance assurance solution unifies QoS visibility over Telefónica’s multi-vendor metro and backhaul networks using a standards-based approach. It assures transport network performance for a full range of LTE applications including mobile broadband, VoLTE, video streaming, voice and text messaging, internet of things (IoT) connectivity, and value-added roaming services for partner carriers.

At the first nationwide deployment in Brazil, Accedian solutions monitor backhaul connections for both 3G and LTE sites, assuring not only data connectivity, but helping VIVO to reduce call drops, boost availability, optimize bandwidth utilization, and optimize call quality. VIVO now tiers network traffic over eight classes of service (CoS) to each base station, in order to ensure voice and critical signaling traffic are properly prioritized. Accedian’s performance assurance solutions monitor each CoS independently, ensuring the network maintains and optimizes the QoS of each service flow, end-to-end.

“By underpinning our network with Accedian real-time monitoring, we have complete visibility to control and optimize quality of service (QoS) to new levels of excellence. It’s a strategy we pioneered and proved out with extensive planning, testing and engineering,” explained Vivo’s CTO, Jose Pedro Nascimento. *“Our subscribers will now benefit from a fully-assured network that is designed to offer the best digital lifestyle experience, and provide the most reliable, scalable connections to enterprises who count on our network to run their businesses.”*



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Accedian performance assurance provides complete visibility across mobile, enterprise and residential services.

Telefónica's requirements for a comprehensive performance assurance solution to cover its global footprint included:

- Ubiquitous coverage to localize issues, plan network upgrades, and optimize performance.
- Real-time metrics covering network QoS, as well as voice and video and QoE, for trending, alerts and reporting.
- Multi-CoS monitoring to properly assure signaling, synchronization, voice, video and broadband flows sharing backhaul and access links.
- One-way metrics without synchronized endpoints, to address the provider's highly asymmetrical network with many radio backhaul and FTTx links
- Fast and easy instrumentation deployment with a virtualized, centralized control platform.

Accedian's solution hit all these marks—and more—with ubiquitous, real-time network performance visibility to deliver the best possible QoS and reliability for Telefónica's customers. The solution was developed and proven with nearly three years of testing, engineering, and operations integration, that started in Brazil. From there, trials extended to all other Telefónica properties deploying LTE in Latin America (10 total), and then to multiple countries in Europe.

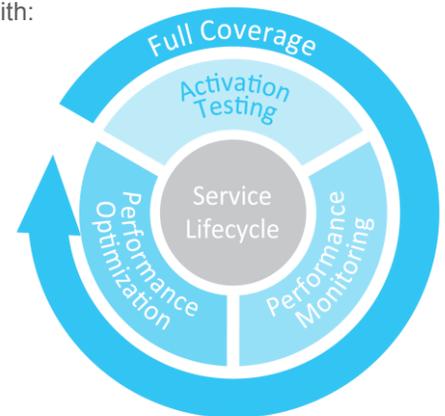
The success of early trials resulted in Accedian monitoring the Telefónica network during the [2014 FIFA World Cup](#) with local partner HTC.COM, and the same solution will be used to assure performance during the 2016 Summer Olympics in Brazil.

With proven results in Latin America and Europe, Accedian was included in—and exclusively awarded—a global RFP for performance assurance of Telefónica's global LTE networks footprint. Full deployment is now planned or underway in Brazil, Argentina, and Peru, to be followed quickly by other Latin American and European operations.

"Thanks to this partnership with Accedian, Telefónica's customers will be able to take advantage of the improvement in end-to-end network performance assurance. We feel confident of our ability to deliver the highest possible levels of quality of experience (QoE) at all locations we serve, which is translated into transformative opportunities for our customers. We view Accedian as a key partner in this strategic project," stated Enrique Blanco, Telefónica Global CTO.

Accedian's solution won out because it provides Telefónica with:

- Cost-efficient, highly virtualized performance assurance.
- Ability to use existing base stations and network elements as test endpoints in many cases.
- Proven end-to-end visibility in multi-vendor networks.
- Open integration into existing network management systems.
- Scalable monitoring and reporting (via the Accedian SkyLIGHT™ reporting platform) for real-time visibility across the network.
- Ability to extend the life of existing 3G base stations with standards-based performance monitoring—using Accedian Nano Modules.
- Direct support from Accedian's Professional Services team, for scaling out new cell sites: turn-up services, system provision monitoring, reporting and results interpretation, network planning and engineering consultancy.



Accedian also provides an instrumentation layer that acts as a foundation for Telefónica's larger initiative to migrate to SDN and NFV-based networks, starting with the implementation of Cloud-RAN (CRAN) for agile 4G network control, and as a cornerstone for 5G migration, where the versatility of CRAN enables coordinated access from multiple base stations and small cells to greatly enhance data rates.

Looking to the Future

Empowered by the service assurance capabilities afforded by Accedian's solution, Telefónica continues to focus heavily on establishing market leasing QoE, with plans to:

- Replicate the strategy at scale across its Movistar mobile brand footprint in Spanish-speaking countries.
- Continue to increase LTE coverage and capacity with new towers and upgrading 3G base stations across the VIVO service area, using Accedian solutions for turn-up and monitoring.
- Use the same assurance platforms for business services and wholesale Ethernet offerings, and to monitor QoE for triple play residential services.

Accedian has built a long term partnership with Telefónica that will help this multinational operator achieve their goal of delivering a differentiated, new level of customer experience. In a crowded connectivity marketplace, this commitment to their customers is a winning formula.

"Telefónica's impressive global footprint and leadership is underscored by its transformative, open, agile, and dependable network. Accedian is pleased to have the opportunity to help Telefónica further its position as the connectivity of partner of choice by ensuring they have the real-time visibility required to optimize network control, and deliver a differentiated performance experience to their subscribers,"

Accedian Founder, President, and CEO, Patrick Ostiguy.

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