

MYCOM OSI's Telco Transformation Solutions assure Asian 5G Standalone Network and 5G Network Slices



Executive summary

An Asian communications service provider (CSP) required to consolidate its performance management systems and consolidate different technologies, including 3G, 4G and NFV, and assure its new 5G standalone network and 5G slices. As the CSP rolled out 5G to offer new revenue generating services, it wanted automated performance monitoring for different 5G slices (such as eMBB, uRLLC, and mMTC) that would support consumer and corporate services, with a need to assure multiple slices to meet the business intent.

MYCOM OSI offered its EAA-PM system for consolidation of existing Performance Management (PM) systems. 5G Assurance Solutions, part of Telco Transformation Solutions operated on Amazon Web Services (AWS), were offered to the CSP. The solutions included intelligent correlations to address issues related to VoLTE, VoNR, NFVi and problems of the 5G standalone network coverage, capacity and availability.

In addition, MYCOM OSI offered automated 5G slice analysis and performance management for special events, which involved high traffic and high mobility. Through this solution, live 5G network slices (eMBB) were monitored in real time, and advanced root cause analyses was provided for the consumer and corporate slices.

With this, the CSP could:

- Attain real-time visibility across the entire mobile (3G/4G/5G) network using a single pane of glass.
- Proactively identify network configuration recommendations and trigger work orders, leading to redesign of services or updating of 5G network slice QoS/5QI, based on business policy.
- Identify resource issues so that 5G network slice allocations could be orchestrated to maintain QoS and SLA guarantees.
- Consolidate OSS with lower cost of ownership.

Implementing 5G Network and Slice Assurance


To enable assurance of 5G, 4G, 3G, PS/CS Core, PNFs and VNFs, all legacy PM solutions/components were consolidated by MYCOM OSI into its single EAA platform. Enhanced and automated PM reporting was enabled with intuitive real-time and near-real-time dashboards to identify performance problems. The EAA-PM system structured and consolidated the PM data before sending it to northbound systems. Cross-domain KQIs were enabled for mobile (RAN, core and transport) and NFVi for the 5G standalone network.

About the Communications Service Provider

The service provider is one of the largest service providers in South Asia offering mobile, fixed and broadband services.

It provides ISP, IPTV and mobile phone networks and fixed line telephony services.

Its high-speed, low-latency 5G network enables mission-critical enterprise applications.



For consumer and corporate network slice assurance, accessibility of the network slices was measured with PDU session dashboards providing the details of the user data session establishment with the core network, for each network slice. The solution also provided an indirect relationship between the traffic and congestion metrics for a particular 5G slice. Applied policies (QoS or charging policies) were used for inter-function transactions, indicating the QoS offered to the users and proper charging of their usage for an allocated slice.

A set of intuitive dashboards provided KPIs covering transactions between Session Management Function (SMF) and Policy Control Function (PCF), and SMF and Charging Function (CHF). This included KPIs for transactions between SMF and PCF to support 5G QoS policies and 5G control plane functions for each slice, and KPIs for transactions between SMF and CHF to support charging functions for each slice.

The consumer and corporate slices were monitored end-to-end, including 5G Core and RAN slices (covering throughput, traffic and packet loss KPIs).

Benefits to the communications service provider

- MYCOM OSI's Telco Transformation Solutions for NOC and SOC are driving the CSP's OSS transformation, consolidating 3G, 4G, 5G non-standalone and 5G standalone assurance, critical for offering advanced and differentiated 5G services.
- Consolidation of OSS supports lower cost of ownership. The NOC/SOC solutions offer day-to-day monitoring across different domains, reducing operational overload and increasing efficiency.
- Proactive advanced RCA identifies recommendations and triggers work orders leading to redesign of services (e.g., updates 5G slice QoS/5QI based on business policy).
- Identifies resource issues so that slice allocations can be orchestrated by third party to maintain QoS and SLA guarantees.
- MYCOM OSI's 5G slices assurance solution is industry-agnostic; applicable to all industry verticals (Industry 4.0, remote healthcare, connected automotive etc.)

About MYCOM OSI

MYCOM OSI provides Service Assurance to some of the world's largest Tier 1 telco operators. Its Service Assurance software visualizes, automates and optimizes network and service quality across hybrid telco and IT networks by integrating real time assurance with closed loop automation and analytics driven by AI/ML.



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