

MYCOM OSI provides Hyperautomation and AIOps Solutions for high traffic and hypermobility mega event for an Asian Tier 1 4G/5G service provider

mycomosi

Executive summary

MYCOM OSI deployed hyperautomation as an early blueprint to deliver high customer experience for a high traffic and hypermobility event in a large Asian Communications Service Provider (CSP) network. Hyperautomation was required for automation of daily network operations, and the roll out and delivery of services to ensure high performance of the CSP's 5G network. The CSP, a leading mobile and fixed line service provider, partnered with MYCOM OSI to deliver high quality network coverage, capacity and service using hyperautomation.

The Challenge

The mobile subscribers' movement was concentrated in an area of 1-15 sqm. The CSP offered high quality of voice, video, and mobile data over its 2G, 3G, 4G and 5G networks. High traffic and hypermobility lasted for 5 days with potential of high congestion. Customers used the network for video calls and transferring videos and messages. The CSP's 4G and 5G networks bore 96% of the data traffic, and in a particular location, data consumption increased by 40% compared to previous years' similar events. International roamers increased by 55%, with 990% increase in international traffic. This unprecedented high traffic and high mobility posed a huge challenge for the CSP.

The Solution

Using MYCOM OSI's EAA portfolio of Service Assurance applications (PM and SQM), and Telco Transformation Solutions (5G Assurance Solutions, Automation Solutions and AIOps Solutions) the CSP could monitor 2G, 3G, 4G and 5G multiple domains and multiple vendors for the entire period. Key Performance Indicators for data traffic were monitored as follows:

- 2G/3G/4G/VoWiFi voice erlangs increased by 600 % in a day (from 16K to 95K erl)
- 3G/4G/5G data increased by 2500 % in a day (from 5TB to 140TB) 5G
- specific mobile data increase of 2000% (from 500GB to 10250 GB)

The mobility of 1 million people between the areas of the event was monitored as the following KPIs:

- 300% increase in Paging Attempts
- 580% increase in Location Update attempts (1.4 million to 7.4 million) in a certain area
- 85% increase in Location Update attempts (33 million to 61 million) in all the 4 areas

About the Communications Service Provider

The Communications Service Provider is an Asian nationwide telecommunications company that offers ICT solutions and digital services.

The CSP offers a range of mobile, fixed and enterprise services over its landline and mobile 3G, 4G, 5G networks. It recently rolled out its 5G nationwide network, offering new mobile data services.

- 55% increase in international roamers attached to the network from 465K to 720K for top countries

MYCOM OSI offered the following solutions:

Hyperautomation techniques

This included automated detection, correlation, ticketing and automating root-cause identification. Hyperautomation techniques used to automate operational activities across multiple 3G/4G/5G domains were:

- Multi-domain performance monitoring of Core, RAN and Transmission/Transport
- Domain Drill Down dashboards
- Day on day traffic comparison to detect anomaly in a highly variable traffic environment

5G Domain monitoring

5G Service Quality & Impact Analyser identified service bottlenecks from multiple data sources including Performance, Fault Alarms and additional downlink/uplink KPIs from speed test results. The 5G Vendor benchmarking and 5G traffic/subscriber monitoring solutions were also used.

Dashboards

Multiple dashboards / alerting mechanisms were used for different departments (RAN, Mobile Core, Fixed access and Transport & Transmission). Daily dashboards provided a holistic view of the multi technology service based on KQIs.

AIOps for prediction

MYCOM OSI's AIOps Solutions enabled the CSP to predict anomaly detection, capacity and coverage across its networks in preparation for the mega event.

Benefits to the Communications Service Provider

- Seamless management of the mega event with over 1 million customers, generating ultra-high traffic and hypermobility
- Planning and monitoring sudden changes in traffic and acting swiftly (near real time dashboards leading to root cause analysis)
- Reduction of MTTx (up to 80%) by automating root-cause identification
- The hyperautomation project is an early blueprint for similar global mega events, such as sports and entertainment events

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.

The logo for MYCOM OSI, featuring the word "mycom" in a dark blue font and "OSI" in a light green font, all in a lowercase sans-serif typeface.