

Achieving the visibility and insights needed to operate VoIP services effectively



The Challenge

A problem with an IMS network element leads to a significant rise in dropped calls. Metrics generated by the IMS fail to spot the issue or provide data on its cause leading to degraded service quality.



The Solution

Partner has been integrating Voipfuture's Qrystal platform into its network since 2015. Qrystal quickly identified the problem and its cause by analyzing information in SIP messages and user behavior.



The Results

Partner could get ahead of the problem and work towards its solution as quickly as possible. On top, Partner now uses Qrystal data for its BI operations tool to continuously track the call drop ratio and other metrics at the region and device level.

ABOUT PARTNER COMMUNICATIONS

A leading telco group commanding ~28% of the Israeli mobile market

Partner Communications Company Ltd. is a leading Israeli provider of telecommunications services. It provides various telecommunication services in many segments, such as Mobile, Fixed Line, International, ISP, Fiber Infrastructure and IPTV.

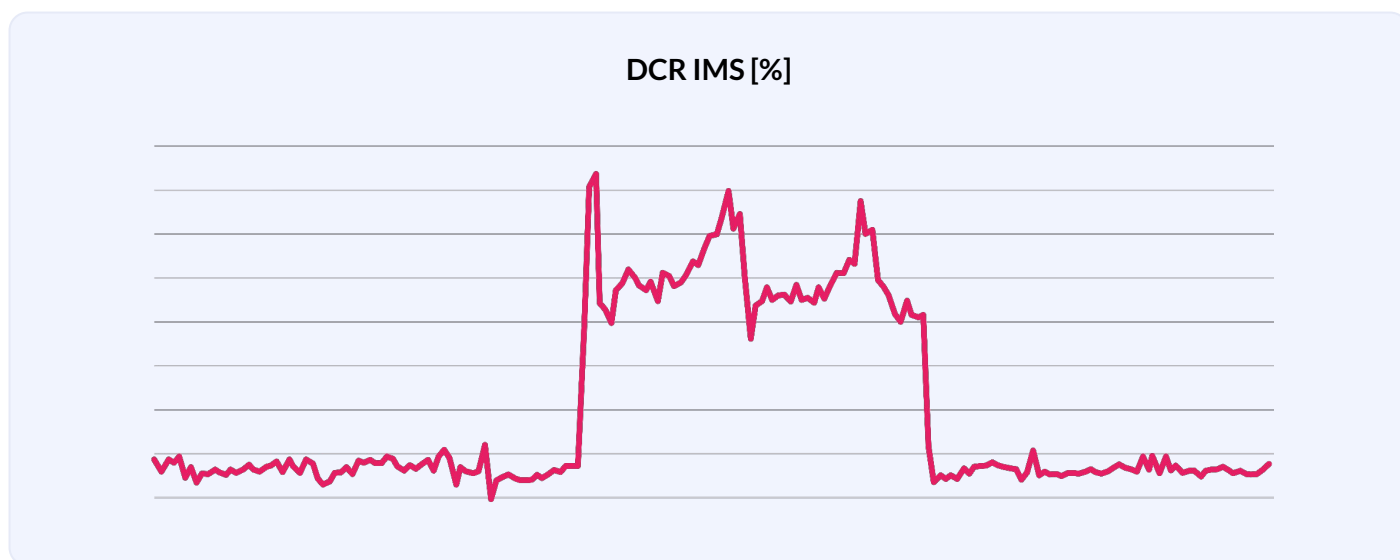
The offered telephony services include mobile telephony, text messaging, internet browsing and data transfer, content, handset repair, roaming, and services provided to other operators permitted to use its mobile network. Additionally, Partner also provides Machine to Machine and Internet of Things services. Partner's ADSs are quoted on the NASDAQ Global Select Market™ and its shares are traded on the Tel Aviv Stock Exchange (NASDAQ and TASE: PTNR).

THE CHALLENGE

Service alerts, troubleshooting, and solutions - all before customers complain

Partner has always emphasized user experience, customer service, and all-around operational excellence. This has led to low churn rates, which have declined for seven consecutive years.

What contributed to Partner's operational excellence? Take the following example incident, which is familiar to many telecom companies:



This graph shows a snapshot of this event where a problem with a single network element - a so-called media processor - out of about a dozen caused a rising DCR, affecting thousands of subscribers.

Voipfuture's Qrystal system showed a dramatic rise the Dropped Call Rate (DCR), which is the fraction of dropped calls over all established calls, and Partner operations immediately started to analyze the root cause. However, the metrics provided by the IMS (IP Multimedia System) elements failed to spot the issue, because they do not take the user experience into account. Qrystal not only alarmed on the rise of the DCR, but also provided valuable information on the SIP reason headers associated with the dropped calls, which pointed to the failed media processor. This is one of many examples illustrating that data from network elements struggles to support best-in-class user experience.

THE SOLUTION

Implementing dual visibility monitoring capabilities

Since 2015, Voipfuture has collaborated with Partner to ensure they have complete control of the voice services they provide. The system was originally put in place to provide visibility and enhanced SIP and RTP troubleshooting capabilities to Partner's operations department. Each year Partner has extended its Qrystal system into new areas, such as VoLTE and VoWiFi services, to ensure full visibility for operations. What started as a solution to monitor fixed network traffic now covers much more of Partner's network.

Amir Haviv, Manager, Assurance and Analytics for Mobile at Partner:

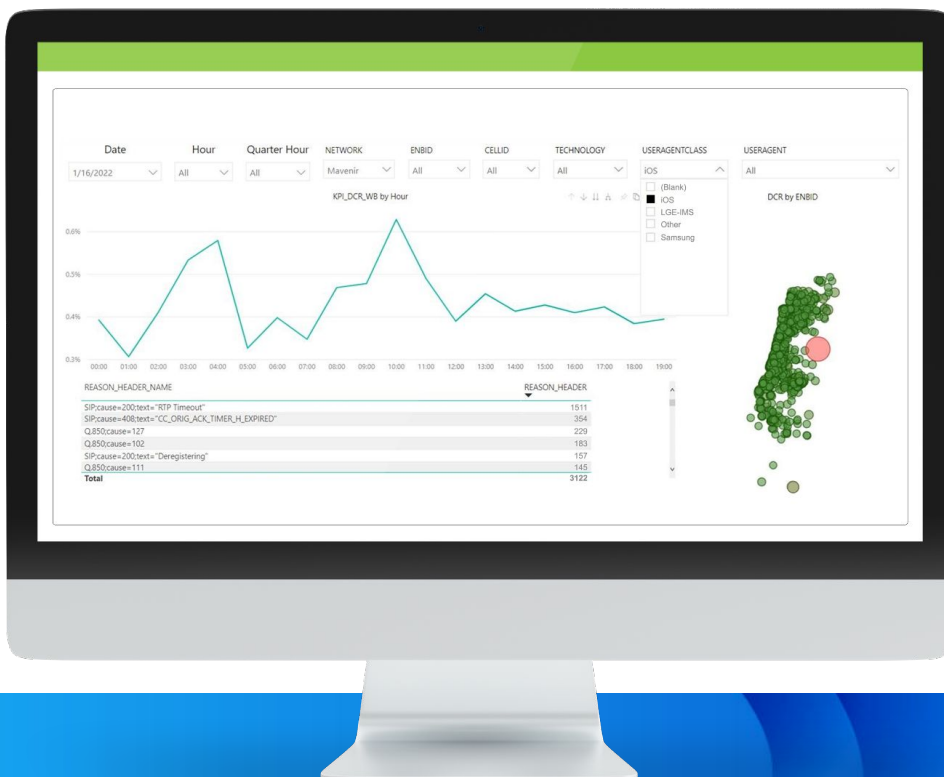
"Partner is very sensitive to customer satisfaction and keep seeking for ways to identify as quickly as possible any service degradation. We really appreciate Voipfuture's unique technology which facilitates to spot any issue with customer voice quality."

THE RESULTS

Real-time data visibility for quality of service and experience

The example incident illustrates the practical benefits of Qrystal to Partner. The solution raised an alarm when the DCR went up and pointed to the root cause of the problem. Qrystal showed that the dropped calls were all marked with a specific IETF RFC 3326 reason header, namely 'RTP Timeout'. This indicated that the root cause was not primarily a signaling issue, but involved network elements dealing with RTP. This shed a light on the faulty media processor. Once the issue was fixed, Partner used Qrystal to track the DCR to ensure it falls back to an expected value.

With Voipfuture's help, Partner not only has access to accurate and actionable data, but it also owns this data. They can export it to create BI dashboards and measure DCR at the region and device level. This is how Partner tracks performance on specific devices, discovering those more susceptible to dropped calls. The graph below shows a DCR report using Power BI.



The DCR is just one of many unique KPIs and metrics provided by Qrystal helping Partner achieve visibility and operational excellence.

Eran Oss,
Network planning section manager at Partner:
"Voipfuture's solution stood out during our assessment for voice quality monitoring and proved its value in the first month after deployment. It delivers real-time data visibility for both quality of service and quality of experience. This is essential for us to continuously improve speech quality for our customers".

Michael Wallbaum,
Director of Product Marketing at Voipfuture:
"It is our pleasure to work with an industry thought leader such as Partner to enable more efficient operations which result in higher customer satisfaction. Qrystal has demonstrated its value to Partner's operations and we are happy and proud that Partner has continuously decided to expand the use of our solution throughout the last 7 years."