

CHECK OUT THE NUMBERS

The Case Studies

This document summarizes three operator case studies, all of which took place in 2017-2018. Owing to client confidentiality we cannot explicitly name customers alongside figures showing network savings, but we do provide a summary.

Our three customers are:

1. A major tier-1 group operator
2. An operator working in the ultra-competitive Indian market
3. A dominant player in the Middle East

Major Tier-1 Group Operator

Our client offers 4G, 3G, ADSL and broadband internet services. Like most mobile operators, our client has experienced phenomenal growth in mobile data, most of this down to video streaming.

As mobile networks carry increased traffic loads, subscribers suffer poor Quality of Experience (QoE), including long wait times and video buffering. It becomes a challenge to control QoE and manage the impact on the network due to unlimited video/media plans, which include YouTube, Netflix, and Soundcloud – all encrypted.

Operator in the Indian Market

With an innovative offering involving free or incentivized data and voice, our operator has a rapidly growing customer base. But in India no operator can afford to sit back and relax. Growing traffic consumption means that streaming video traffic in India amounts to more than 1.65 billion hours per month,

propelling India from No 155 to No 1 in the world in terms of mobile data consumption. This is a market with fierce growth and ferocious competition!

This soaring growth was contributing to localized congestion at peak hours, where subscriber throughput was affected, video quality was degraded and unevenly distributed across subscribers. Eventually this always leads to subscriber churn.

Middle East Tier-1

Our third client offers mobile telephony and internet services to +12M customers and provides network coverage to 94% of its population. In the past 12-24 months traffic has grown explosively. Simultaneously, HTTPS and QUIC encrypted video traffic consumption has reached 60% of total mobile data traffic.

As in the previous case, this caused localized congestion at peak hours, video quality was degraded and unevenly distributed.

In all three cases – Encryption

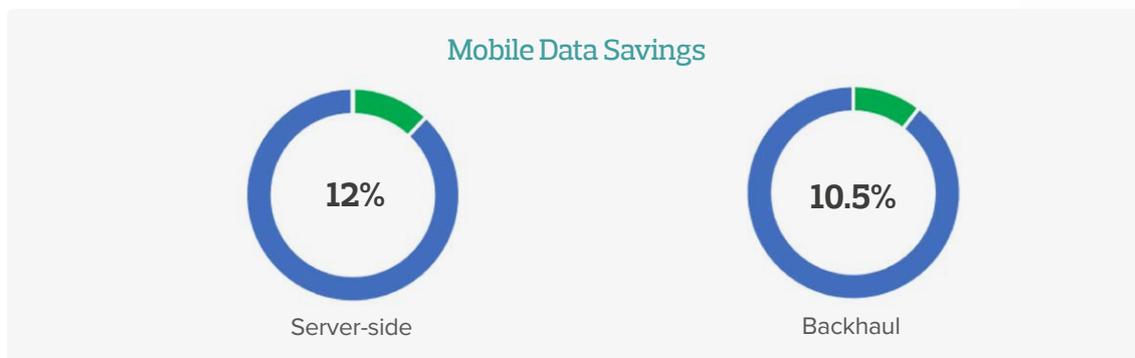
In all cases, as well as soaring video traffic, up to 75% of that traffic is encrypted and therefore not visible at all, meaning operators cannot use traditional traffic management tools to control cost of delivery of content. Nor can they manage their subscriber QoE - ultimately this limits their capacity to monetize data.

After deploying Openwave Mobility Video Traffic Management

Major Tier-1 Group Operator

Since its launch, our solution has produced the following results:

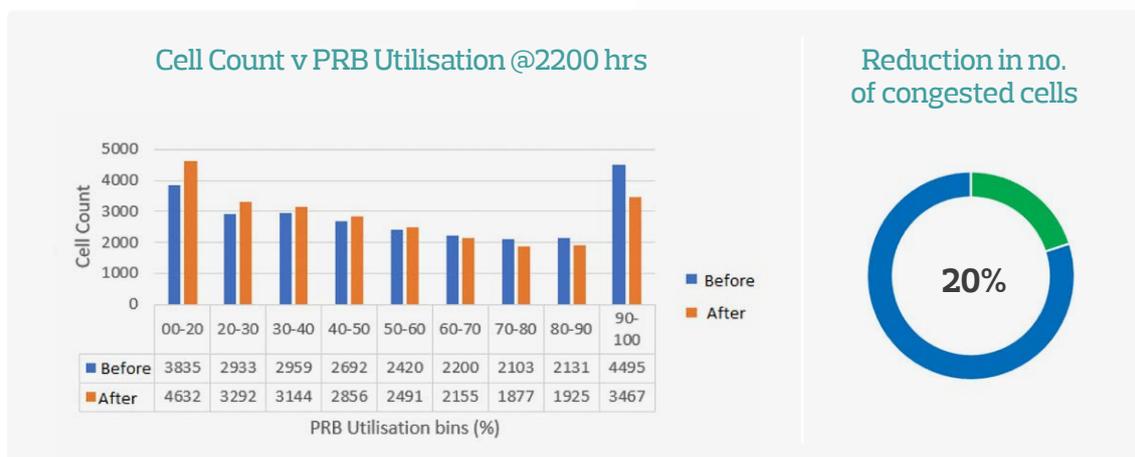
- Average **data volume savings achieved** on all-IP traffic are about 12% on the server side and 10.5% on the backhaul.
- Remarkable **reduction in stall time by about 46%** for HTTP-PD videos.
- Secured **consistent video QoE** across users, even during congested periods.
- **Network relief**, as the bandwidth required to play mobile video is now lower.



Operator in the Indian Market

Since launching we have seen the following improvements:

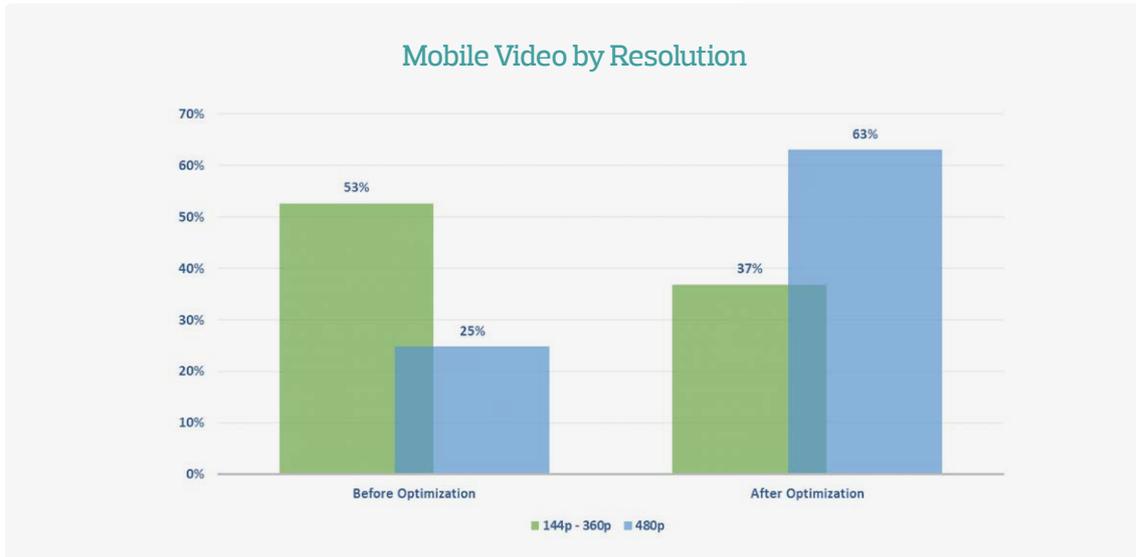
- Our solution was triggered in scenarios when % PRB utilization exceeded a pre-defined threshold. This has eased network congestion and **brought down the number of congested RAN cells by 20%** without affecting the overall number of connected users, also increasing the subscriber throughput by 13%.



Middle East Tier-1

Since launching our solution this operator is managing encrypted video by:

- Securing consistent video QoE across users, even during congested periods; a reduction in low quality video (144p to 360p) while DVD-quality video streaming has increased by 38%.



- Creating **network relief** as the bandwidth required to play mobile video is now lower.
- Mobile data savings: **HTTPS 16% and QUIC 17%**.

What is this solution?

In all three cases: **Secure Traffic Manager coupled with DynaMo**

Secure Traffic Manager (STM) extends our clients' traffic management capabilities into the encrypted path by intelligently adjusting HTTPS, QUIC and Facebook Zero Adaptive Bitrate Video. In addition, **DynaMo** is our complimentary product which manages and optimizes unencrypted video, web and audio traffic.

This combined video traffic management solution is enabling our clients to reduce the impact of video on the RAN, core network, backhaul and transit links. It classifies and optimizes encrypted video content in real-time based on quality indicators that include video resolution, bitrate and MOS quality scores. Extending beyond brute-force optimization offered by other vendors, flexible granular rules can be created by combining multiple contextual conditions that are evaluated at line-rate speeds.

Our solution is built on top of Integra, our IP Traffic Management Engine, enabling operators to adapt to changing traffic demands by means of a QoE-driven service orchestration engine.

What's YOUR mobile video strategy?
Arrange a product demo today