Utel

Utel Network Insight:
Expanded insight for evolving network operators

Quality of Experience has emerged as the battleground on which market share can be won or lost by Communications Service Providers. What steps can CSPs take to deliver optimal QoE and in turn help to ensure their commercial success?

Utel enables operators to investigate the network, explore what's happening within it and obtain objective performance data of network elements and operations. Information can be used for troubleshooting, to validate functional performance, and to bestow many other advantages.

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Background

Quality of Experience is the battleground for growth and operators need to closely understand their networksin order to make the correct decisions

In recent years there has been a sea change in the economic model underlying the telecommunications industry. As networks have rapidly evolved, competitive advantage for operators has come to be driven mainly by improving quality of experience for the end user as well as through innovating in network services.

The new commercial landscape has seen the network become a competitive battleground. And technology choices related to network investment and operations are therefore becoming a key to long-term commercial success.

This means that network operators need to refocus, deciding not only where they need to invest but also to get on the right transition path from their current architectures to what they'll need in future – while protecting necessary legacy investments and services.

The decisions they make will be critical. Network operators cannot afford to make poor choices. This means, above all, it's essential that they understand their networks better than ever before, assuring they operate, perform, and deliver as intended. And as research firm Oliver Wyman has reported, for telcos who want to retain market share and remain relevant to their customers, improving service quality is by far the biggest challenge they face . How can they do that?

The reality... presents a new challenge to which operators must respond: how can they better capture, organise, and monetise.... their networks? How can they drive the delivery of greater business value from performance? If higher Quality of Experience is essential, how can it be achieved?

The business challenge

Capture, organise and interrogate network information

The simple answer is by more effectively assuring the Quality of Experience noted above. And that, broadly, means doing a better job of making sure that the network performs optimally, in a way that delivers what end-customers expect, when they expect it. If Individual customer experience has become the primary differentiator for operators in today's market, then it follows that meeting expectations in this area of business is critical.

The leading global analyst firm McKinsey reports that network experience accounts for 40 percent of new users' key buying influences and churn behaviour. Competing on price alone is no longer sustainable as a strategy for long-term profitability. These findings underline the point.

The reality outlined above presents a new challenge to which operators must respond: how can they better capture, organise, and monetise the performance of, and data generated by, their networks? How can they drive the delivery of greater business value from performance? If higher Quality of Experience is essential, how can it be achieved?

On the one hand, the nature of the answer – collecting, mediating, understanding, and acting on network-sourced data doesn't require doing anything new for telcos. But on the other, with network evolution and increasing complexity represented by the growing range of devices, the proliferation of new sources of data, and the explosion in the sheer volume of that data resulting from better connectivity and faster networks, accruing, and accessing the requisite insight into performance is now a greater challenge than ever before. And it's one that must be met.

The question faced by network operators as a result is "how" to do that? Because without the insights they require to assure QoE, commercial success is all but impossible to achieve.

That's because insights are necessary to:

- Improve utilisation and ensure optimal network operations

- Accelerate efficiency

- Improve customer experience

- Reduce OPEX spending

- Identify and create new revenue streams

To achieve these outcomes, operators must not only be able to obtain and measure operational data but also to translate what they collect into actions and ultimately business benefits. For instance, better awareness of faults in the network enables the operator to quickly resolve performance issues and deliver a problem-free service to the end customer.

Network Insight is broadly the function they require to do this. It can be understood as allowing the operator to look into the network, explore what's happening within it and obtain objective facts related to the performance of network elements and operations. The critical information collected can be used for troubleshooting, to validate functional performance, and to bestow many other advantages. It allows operators to measure network operations against Key Performance Indicators that matter to their business.

The Utel solution

Helping operators to measure network operations against KPIs

To obtain the required insights and, in turn, to optimise network performance, the operator must identify the right solution from the right partner. Utel has an established record in helping industry leaders solve this problem.

Our solutions enable data acquisition from multiple telecom network interfaces that are critical to overseeing performance.

Among many other aspects of the network that impact customer experience, they cover:

- Interfaces to mobile (2G/3G/4G/5G), IoT & TDM Networks

- RTP Capture for Voice Quality Analysis

- Real-time Streaming to 3rd-party Solutions

- XDR Generation & Storage

- XDR Streaming to 3rd-party Solutions

- ITU, ANSI, Japanese and Chinese Standards

They offer continuous monitoring, with the scalability you need for any network. Utel's solutions are virtual, and can be deployed from the cloud, or on-premise.

Performance monitoring is critical in the operator's pursuit of long-term commercial success, at least if network-related errors are to be minimised and addressed and network performance optimised. Data is collected from the network, spanning issues ranging from hardware errors to configuration errors, from bandwidth issues to WAN issues, and many more.

They also accommodate both legacy and new build network components. Even though IP is now commonplace, legacy E1 / T1 interfaces remain, SS7 (over IP or otherwise) continues to be ubiquitous and, despite many operators switching it off, ISDN is still a constant despite new customers no longer being connected to such interfaces. Insight is, thus, a challenging outcome to compile and deliver.

With the information it gathers, Utel's solution helps operators to measure network operations against KPIs, such as:

- Signalling volume (for network dimensioning)

- Success rate for operations (voice calls, SMS delivery, subscriber / roamer attachment.)

- Answer Seizure Ratio (ASR)

- Network efficiency ratio (NER)

- ALOC (average length of call)

In short, network infrastructure today is, for most operators, a patchwork quilt of components the monitoring and management of which is inherently difficult. So, operators must be able to embrace a huge range of protocols, elements, and components depending on their core services and infrastructure to realise the insights they need. In partnership with Utel, operators can achieve this.

Benefits

A critical role in the operator's long-term commercial success

Utel's solutions deliver insights that enable operators to investigate the network, explore what's happening within it and obtain objective facts related to the performance of network elements and operations. The critical information collected can be used for troubleshooting, to validate functional performance, and to bestow many other advantages.

Utel's solutions deliver the insights needed to:

- Understand network health

- Gain visibility of network traffic patterns

- Automate network change and configuration management

- Capture information from all deployed networks – future, current and legacy

In each of these and other cases, KPIs can be broken down and analysed by individual network element, for example for each roaming and/or interconnection operator to enable the home operator to isolate domains, track performance, view end-to-end activity and delivery, and more.

Help is needed to achieve this because legacy Operational Support Systems don't provide the requisite detail – generally, they just report on the functional status of each platform. Insights also enable the operator to understand if calls are terminated or not so that routing issues can be isolated. By providing such vital information, Utel plays a critical role in the operator's pursuit of long-term commercial success.

Conclusion

Meeting tomorrow's network monitoring challenges

For today's operator, QoE is the key metric against which this commercial success is benchmarked. It's the visible outcome of network performance and it's critical to optimising capital investments in the network and therefore to increasing ROI. But to deliver QoE the operator must be able to effectively measure the services used and their delivery to customers.

For operators with already complex networks and considering likely plans for further evolution, Utel can help ensure that the network monitoring and optimisation challenges of both today and in future are met successfully via a single, proven solution for the efficient monitoring of all signalling deployed across any network.

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