NETSCOUT®

Five Critical VoLTE KPIs

For effective management of VoLTE service, the following KPIs provide the visibility you need to quickly assess performance and monitor degradation.

Session Establish Effectiveness Ratio (SEER)

- Explains how effective the network is at delivering SIP service to/from the user element (UE)
- Used to measure the behavior and performance of the network elements

SIP Dropped Call Ratio

- Measures the percentage of calls that failed after a successful answer
- Enables operators to put their trust in independent applications rather than RAN KPIs

Call Setup Failure

- Determines how many calls were not set up successfully and why

Acceptable Call Quality

- Calculates the percentage of measured RTP streams with a MOS > 3.0
- Used for one-way audio gap analysis

Session Completion Ratio

- Reports call completions/call attempts

Protect Your Brand

Launch VoLTE Service with Confidence

Complexity Requires Proven Expertise

Spanning multiple connections of network technologies and domains, VoLTE has the inherent flexibility to enable many different types of services while creating new revenue opportunities. While the benefits of VoLTE may be clear, the path to a successful launch can pose significant challenges.

The good news is, you don't have to go it alone. NETSCOUT has the knowledge, experience and toolset to help you confidently navigate VoLTE's uncharted waters.

Selected by leading operators in North America and Asia, NETSCOUT has served on the front lines of the world's first VoLTE deployments. Working side-by-side with talented network engineers and operations personnel, our team truly understands what it takes to launch and monetize VoLTE service.

With a solution that addresses VoLTE's critical success factors, NETSCOUT is ready to cut through complexities with a comprehensive, user-friendly solution.

Context Matters

As a typical VoLTE call can span more than 40 "hops," or steps along the path, limiting call success or failure categorization to a single message, is no longer viable. In VoLTE, an understanding of the sequence and context within full flow is also important. NETSCOUT'S VoLTE solution adds this clarity with complete analysis of the VoLTE messages, the order of those messages, and the timing between those messages. With this type of view, troubleshooting teams can eliminate noise and false negatives for a more productive resolution workflow.

All KPIs are Not the Same

While it is important to keep a watchful eye on the most meaningful KPIs throughout your VoLTE launch and ongoing operation, the insights derived will only be as good as the algorithms behind them. NETSCOUT'S field-proven algorithms are based upon real world scenarios, so relevance is assured.

With better KPI calculations, troubleshooting teams can see failed calls with greater accuracy, report on call scenarios with greater precision, and track complex handovers between diverse network types.

From a customer-perceived call quality perspective, NETSCOUT'S KPIs take the guesswork out of one-way media analysis—reducing the number of false positives triggered by on-hold and video calling scenarios.

All KPIs are available for proactive monitoring through reports and alarm configurations, ensuring that support teams stay on top of performance issues before problems become widespread.

Familiar Toolset Accelerates Troubleshooting

For years, service providers have relied on our applications when identifying and troubleshooting their network and services. The addition of VoLTE coverage extends the familiar, user-friendly interfaces to minimize the technology learning curve.

- Our solution features a unified monitoring and VoLTE optimization suite that combines 2G/3G, LTE, IMS, and roaming.

While leveraging the existing solution affords immediate productivity, additional capabilities can enhance your VoLTE management experience.

- Gain hop-by-hop visibility for precise isolation of problem introductions.
- Streamline service failure troubleshooting efforts with subscriber summary queries.

VoLTE Success Factors

- Accurately reflect customer perception of audio quality
- Intelligently calculate KPIs
- Proactively monitor KPIs with alarms and reports
- Troubleshoot complex scenarios with simplicity and speed
- Measure and report on overall quality

Why VoLTE is Different

Although voice is often considered a table stakes service, its evolution to LTE makes a dramatic departure from circuit-switched origins in terms of general mechanics and quality assessment.

- With VoLTE, the number of legs required to set up and maintain a call increases considerably. With more links and nodes involved, additional points of failure or quality degradation are introduced. Only a solution that can accurately measure and interpret messages within the context of the entire call can provide the visibility needed to distinguish between a success, a failure or a timeout condition.

- The Real-time Transport Protocol (RTP) media of a VoLTE call introduces additional challenges in terms of customer-perceived quality. A solution that can accurately interpret one way audio, efficiently analyze audio gap, and even distinguish between video and 3G voice is paramount.

- Service providers must prepare to troubleshoot device interoperability issues in real time. A solution that addresses every hop across network domains accelerates troubleshooting efforts.

Staying ahead of these types of issues can help guarantee a quality VoLTE experience.

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