VIAVI

Viavi Solutions® accessLTE™ for LTE Assurance

Maximizes uptime, ensures quality, saves millions

LTE Network and Service Challenges

Dissatisfied customers cost a lot of money. The rising popularity of smart phones and bandwidth-hungry applications has led to massive growth and complexity of data traffic. Support calls are more complex, take longer to resolve, and cost millions in customer care, especially when using your high-paid tier-2/3 engineers and other resources inefficiently. Only if you achieve higher first-call resolution and reduce call times will you enjoy significant advantages in customer satisfaction, reduced churn, and better financial returns. The Viavi accessLTE solution for Long-Term Evolution (LTE) assurance can cut mean time to repair (MTTR) from 45 to 5 minutes, saving you as much as $1.5 million in operating expenses.

The Costs of the Challenges Are Significant

You will pay a heavy penalty in both operating costs and lost revenue if a large percentage of LTE data service problems require tier-2/3 technicians and take several hours to resolve. On average, a mobile operator tier-2/3 support team will deal with data-service-related problems reported by 0.1 to 0.5 percent of subscribers per month with each requiring up to several hours to resolve, resulting in annual costs running in the millions of dollars for a medium- to large-scale operator.

- Reduce problem resolution time by up to 80 percent
- Help existing tier-2/3 staff resolve more problems
- Increase number of problems solved by tier-1 troubleshooting
- Deliver increased customer satisfaction

LTE Introduction Pain Points

Operators providing data services on LTE networks will likely face some or all of these issues:

- Verifying new LTE network element interoperability to minimize service disruption
- Monitoring LTE QCI to verify data throughput to subscribers paying for a premium service
- Introducing and trouble-shooting new data services and data-capable smart phones
- Identifying network element configuration errors impacting data services
- Ensuring delivery of seamless service irrespective of customers on LTE or 2/3G
- Identifying rogue users who consume huge bandwidths and diminish service quality for other customers
- Rapidly identifying simple issues, such as misspelled APNs, resulting in fewer escalations to expensive tier-2/3 resources

The Solution

Using the Viavi accessLTE solution, you are three clicks away from identifying problems. You get unparalleled scalability and reduce problem resolution time by as much as 80 percent, allowing you to reallocate resources more cost-effectively. Your customers win with high-quality, consistent service; your company wins with substantial savings and more revenue; and your employees win with greater job satisfaction.

Where You Can Capture the Data

The accessLTE solution delivers actionable information for the pain points described from data captured on the interfaces at your LTE network elements (MME, SGW, PGW, and PRCF), as well as key interfaces on interconnected 2/3G networks. Monitored interfaces include:

- S1-MME, S10, S11, S6a: Carries control plane data between the E-UTRAN and core network NEs . Provides details on session setup, refresh, and tear down.

- S1u, S5, SGi: Carries user-plane information between the E-UTRAN and core network NEs. Provides detail about end-user services such as web access and e-mail.

- Gx, Rx: Carries (PRCF) control-plane data relating to charging and policy control.

- Gn, S4: Carries control-plane data between LTE and interconnected 2/3G networks.
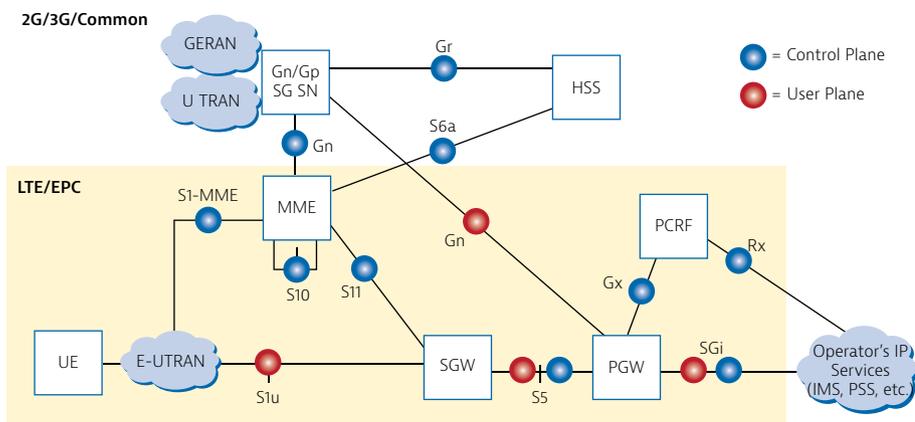
What Separates Viavi from the Competition

- A highly scalable distributed architecture capable of monitoring current and future traffic rates

- Automatic correlation of data across interfaces and data across signaling and user planes

- Integrated applications so you are never more than three clicks away from identifying any fault

- Intelligent KPI definition and alarm thresholding, including procedural "composite KPIs"

- Best-in-class troubleshooting application, including detailed LTE handover analysis
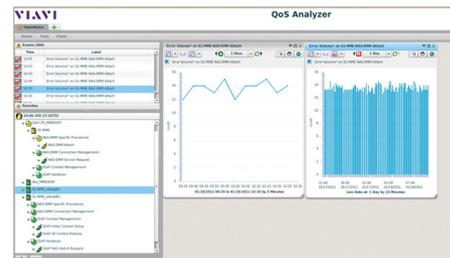
Immediate KPI Alarms for Single and (Procedural) Composite Transactions

The accessLTE QoS Analyzer provides a comprehensive range of real-time KPIs that provide immediate visibility into the customer, service, and network QoS being delivered. Also, accessLTE takes this visibility further than any competitor by offering procedural composite KPIs.

The composite KPIs within accessLTE minimize fault detection time through simplified visualization of complex control and user-plane multitransactional procedures such as reducing the Attach Request procedure involving 19 transactions to a single composite KPI.
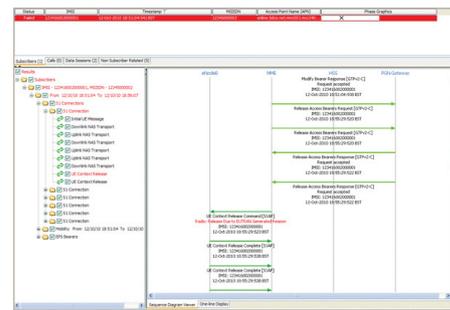
Quickly Identify and Resolve All LTE Complex Faults, Including Handovers

The accessLTE Session Trace delivers real-time and historical fault troubleshooting that correlates all interfaces (2G/3G and LTE) and protocols into a single insightful trace, minimizing fault diagnosis time.

Summary

From immediate alarming of fault conditions to detailed analysis of complex procedures, the Viavi accessLTE assurance solution delivers actionable information derived from network signaling and user-plane data. This information enables you to rapidly deploy new network elements and services, maximize service uptime, and significantly lower operational costs.

The Potential Business Impact Our Solutions Deliver:

	2,000,000 Subscribers	Without Viavi	With Viavi
A	Problems per month (%)	0.1%	0.1%
B	Problems per day (A*#subs/30)	66	66
C	MTTR in (min)/hours	(45 min)/0.75	(5 min)/0.09
D	Hourly cost	$100	$100
	Annual cost (B*365*C*D)	$1,806,750	$216,810
	Potential Savings		$1,589,940