

Operators can now see the potential that VoLTE has as a revenue generator, but they must deliver an outstanding user experience — which means assuring service quality and performance, writes Inna Ott

Why assuring and enhancing customer experience is essential to the monetisation of VoLTE investments



Inna Ott: Assurance investments can be re-used to underpin revenue-generating services, such as SLA-backed voice and video conferencing

The move of the mobile industry to voice over LTE (VoLTE) is gathering pace at last. Having deployed an LTE network, operators have no choice but to upgrade to VoLTE, if they wish to deliver a high quality, differentiated voice or video service. There isn't really an alternative. Switching users back to 2G and 3G networks every time they want to make a voice call or send an SMS is simply not sustainable.

However, VoLTE deployment has been held back by a series of factors. Voice is, of course, well-supported by operators' existing 2G and 3G networks, which has led to a generalised reluctance to engage with the technical complexities of VoLTE when a high quality voice experience is already delivered by previous generation networks. There is a perception of 'If it's not broken, don't fix it'. But there are also other important obstacles to overcome, which include:

- **Gaps in LTE coverage** As a technology that has been rolled out relatively recently, LTE is far from fully deployed in many markets and coverage can be limited or patchy. That has created a need for SRVCC, a call control technology that keeps sessions consistent while users move between different types of network, such as from 3G and 2G. SRVCC is especially difficult to manage and assure
- **Signalling infrastructure** LTE networks are all-IP environments and transporting voice calls over the IP network places an additional burden on operators' IP signalling infrastructure
- **Roaming** Users are so familiar with voice roaming in 2G and 3G that the absence of LTE roaming looks to be a startling omission for the user experience. Operators continue to be faced with choices about the technical implications of VoLTE
- **Operating in a multi-vendor environment** The IP Multimedia Subsystem (IMS) is a single standard that allows room for different interpretations. Deployment of radio networks and IMS from multiple vendors means that operators must optimise VoLTE across equipment and software from different suppliers
- **Devices** LTE devices must have native client support for voice, messaging and, in time, video and conferencing applications

These and other limitations and deployment challenges have given operators a reluctance to deploy VoLTE that is, to a degree, understandable. While it is expected that operators will eventually engage in deploying a complex, new technology to support their core and historically most valuable service — voice, they are also expected to handle the challenges and

bear the costs for a technology that many see as offering uncertain returns.

There is no obvious revenue upside because operators will not be able to charge more for VoLTE than they do for voice. Moreover, VoLTE raises the question of when voice will become regarded as just another element of a data bundle.

Despite that, the news is not all glum. There are significant benefits of VoLTE, but these lie in different directions. The technology offers the potential for operators to:

- Generate operational efficiencies through creating flatter service architectures
- Achieve spectral efficiencies by refarming 2G and 3G spectrum for LTE
- Increase customer satisfaction and loyalty because of the superior, high definition voice quality and faster call set-up times that VoLTE offers
- Exploit voice over wifi by utilising IMS platforms, thereby extending the network

Even though some of these benefits may appear to be distant prospects and cannot easily have a monetary value attached to them in hard dollars, they are prizes worth having for operators. VoLTE has the potential to equip operators with a higher quality service in their fight against OTT voice and messaging offerings by enabling them to offer customers an enhanced user experience and offer future, more differentiated services. Managing and assuring VoLTE services is a necessary element of this strategy, so that the promised enhanced customer experience can be delivered. Investments in VoLTE need to be supported by appropriate systems to deliver the requisite customer experience.

The good news is that the systems and technology to provide assurance throughout the VoLTE lifecycle already exist. Such assurance tools produce a service-aware view of the network to enable analysis and performance optimisation. The investments operators make in assurance systems can also be re-used to underpin the generation of new revenue streams from services such as SLA-backed voice and video conferencing for enterprise customers. It means that operators can be more confident that they will capture returns from their VoLTE investments and removes the element of uncertainty.

Every operator acknowledges that it has to deploy VoLTE but it is only recently that attractive business cases have started to emerge. The combination of customer data analytics with network and service performance guarantees moves VoLTE assurance from being a necessary but uninspiring requirement to being an important enabler for VoLTE as a means to generate new revenues. ■

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