

# HARD WORK BRINGS BIG REWARDS

Assuring VoLTE services effectively will enable enhanced customer experience and the potential for new revenue streams.



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Sometimes you have to do things just because they need doing. The benefits can be unseen and hard to realise at first, but, in time, the rewards do come. Provisioning voice as a service over LTE networks has been a bit like that for operators. It's hard work. It requires considerable effort. In fact, one operator went public last year with the assertion that VoLTE was the hardest technology he's ever had to get to grips with.

And yet the rewards seem far off and intangible. Extra revenues? Not really, operators aren't going to be able to charge any more money for voice - indeed potentially VoLTE will take a red line to voice as a separate revenue

stream altogether, as voice becomes just another app within the data bundle.

Instead, the proposed benefits of VoLTE are of a different nature:

- **Operational efficiencies**, achieved through flatter service architectures;
- **Spectral efficiencies**, achieved by refarming 2G and 3G spectrum to LTE;
- **Potential for increased customer satisfaction** and loyalty because of the superior (HD) voice quality, and faster call set-up times, bringing better experience;
- **Exploiting VoWiFi** by leveraging IMS platforms, so extending the network.

Although these are all prizes worth having, these benefits tend to be far-off, and some are not something operators can easily put a Euro symbol next to - certainly not on the top line. And even to get to

this uncertain and distant destination, operators must navigate a path strewn with difficulty.

There are a number of obstacles to the successful implementation, deployment and optimisation of VoLTE. It needs to work across networks with multiple domains and for both home and roaming subscribers. Chief among these are:

- **Limited or patchy LTE coverage** creates a need for SRVCC, the call control technology that keeps sessions consistent while users move between different network modes, such as 3G and GSM. SRVCC is particularly challenging to assure and manage.
- **Device support:** devices must have native client support not just for voice, but also for messaging and, in time, video and conferencing applications.

- **Roaming:** operators are still faced with choices regarding the technical implementation of VoLTE. Alternatives include the adoption of local break out or, instead, home data routing on the S8 interface. That choice also carries with it commercial implications.

- **Operating in a multi-vendor environment:** IMS is a single standard with room for different interpretations. Multi-vendor IMS and radio networks mean that operators must optimise VoLTE across equipment and software from different suppliers.

- **Signalling infrastructure:** moving voice calls over the IP network places additional load upon the operator's IP signalling infrastructure, particularly between policy, charging, and subscriber databases, and the network infrastructure (enodeB/MME/S-GW/P-GW).

## If VoLTE is that difficult - why bother?

Well, the bottom line is that operators simply have to deploy VoLTE. Nobody is seriously suggesting that operators exist forever in a world that throws devices back to 3G when a user wants to make or receive a voice call or send a message. And although the benefits may seem intangible and far off, they do exist.

Turning off 3G or 2G services to free up spectrum for LTE deployments will dramatically improve spectral efficiencies, and therefore overall capacity. VoLTE helps that process by providing a dedicated voice service in an all-LTE environment, that leverages the tried-and-tested principles of ubiquity enabled by the MSISDN.

Put simply, mobile phone numbers provide universal access, enabling callers to reach one another all over the world, without the need to download an app and register. They have a single, universal identity that can be shared easily and is accessible from any device. Using this universal reach, the ability to prioritise VoLTE traffic in the network (to create less interruptions) together with HD quality voice will give users a superior experience over "OTT" voice apps and services - and that will be crucial to operators establishing and demonstrating the superior values of operator voice services.

Yes, VoLTE really is a mandatory requirement, but by offering users an enhanced experience it could also give operators a means to compete with OTT voice and messaging offers and to achieve their own differentiated services and offers, ensuring that they remain relevant to their subscribers.

Further, the good news is that systems and technology are available that can provide assurance throughout every step of the VoLTE lifecycle, so that these performance benefits can be maintained. These are tools that produce a service-aware view of the network to analyse and assure optimum performance. By implementing these assurance tools, operators can ensure that they really are delivering on their promises of an enhanced customer experience.

Even better, the investments that operators make in assurance systems to monitor and guarantee service quality can be leveraged to underpin the generation of new revenue streams. One idea to monetise data networks is to deliver services that have a guaranteed QoS: for example, video calling. Or, consider an SLA-backed voice and video conferencing service offered to key enterprise customers.

These sorts of service would be tailored to meet specific needs, based on information derived from mining customer analytics with data provided by performance monitoring and assurance tools. By understanding more about what key

customers want and delivering services that are tailored to their needs, operators can enhance revenue from such accounts. Moreover, by delivering better SLA compliance, they can both differentiate on service performance and uptime. By delivering guaranteed quality, they can provide services that ensure they retain key accounts. They can also create new services that blend VoLTE into other processes, enhancing communications possibilities.

The combination of customer data analytics with network and service performance guarantees moves VoLTE assurance from being a mandatory one-off investment to back up another mandatory investment, to being a key enabler for a service that in itself enables new revenues.

**Assurance, plus the application of smart customer analytics, moves VoLTE from the realms of mandatory investment to revenue generator.**

Hard work does bring its rewards, and those rewards might come sooner than you think.

**Ask our experts how Polystar can put your VoLTE investments to work. MWC Stand Number 6G31, Hall 6**

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