

## VoLTE is coming... for many of us

*There are advantages to both telecommunications operators and consumers over the long term, which need to be exploited to realise the development of VoLTE.*

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### **What is VoLTE?**

VoLTE stands for Voice Over Long Term Evolution (LTE) and is essentially the technological solution for providing a digital packet voice service over IP via an LTE access network. In other words, voice calls are processed over a 4G LTE network, rather than the 2G or 3G networks which are typically used.

### **What are the benefits of VoLTE?**

The implementation of VoLTE offers several benefits, but I believe the success of this service will rely on these:

*VoLTE implies that voice calls are processed over a 4G LTE network, rather than the 2G or 3G networks.*



**Figure 1: Main benefits of VoLTE [Source: Author]**

<sup>1</sup> The views and opinions expressed in this article are those of the author and do not necessarily reflect the view of Axon Partners Group.



- ▶ **Improved call quality and faster connection.** With VoLTE, call quality is superior to 3G or 2G connections as far more data can be transferred over 4G than 2G or 3G. According to some researches, up to 3 times as much data as 3G and up to 6 times as much as 2G. Furthermore, VoLTE can connect calls much quicker (up to 2 times) than the existing 2G and 3G networks.
- ▶ **Better battery life.** According to some researches, the use of VoLTE can increase handset battery life by 40%. This is explained by the fact that, without VoLTE, whenever you make or receive a call the phone must switch from 4G to 2G or 3G, and then, once the call is finished, it switches back again. All that switching can reduce the handset's battery life.
- ▶ **Enabler of more spectrum efficiency.** Firstly, if VoLTE is expected to be the most prominent use of voice services, the need for 2G or 3G would reduce dramatically. In this context, the spectrum used for 2G and 3G could potentially be repurposed to increase capacity on 4G networks.

### **What is the current state of VoLTE?**

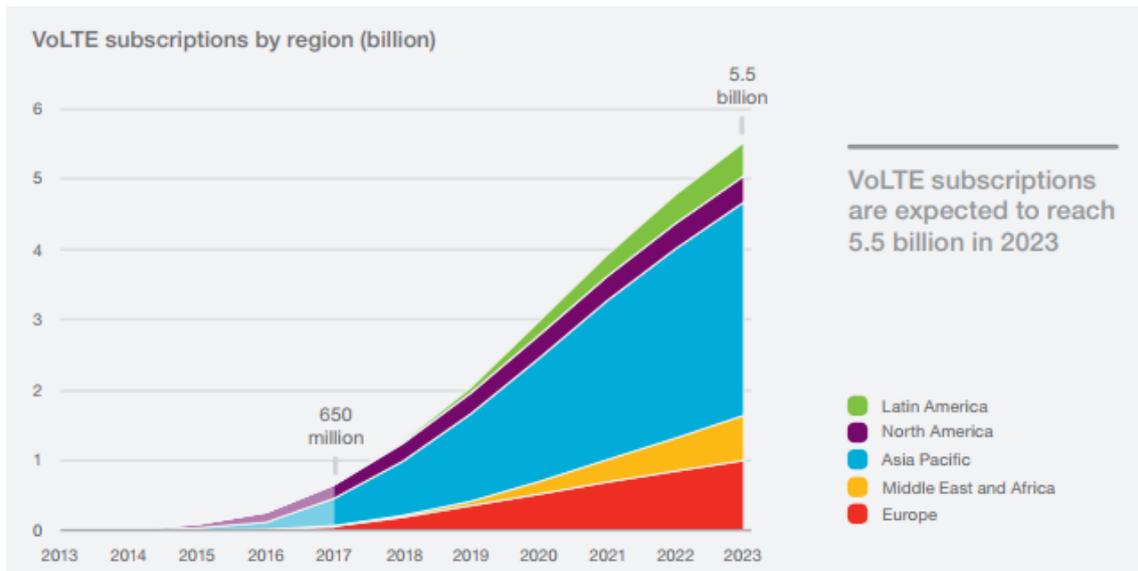
According to the latest 'Ericsson Mobility Report', published in November 2017, VoLTE has been launched in more than 125 networks in over 60 countries. The number of VoLTE subscriptions<sup>2</sup> is expected to exceed 650 million by the end of 2017 and projected to reach 5.5 billion by the end of 2023, making up more than 80% of the combined LTE and 5G subscriptions globally.

*VoLTE offers several benefits, including an improved call quality and faster connection, better battery life and spectrum efficiency.*

*VoLTE has been launched in more than 60 countries, expecting to reach 5.5 billion subscriptions by 2023.*

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<sup>2</sup> According to Ericsson, a subscriber is counted as having a VoLTE subscription if making at least one VoLTE call per month.



**Figure 2: VoLTE subscriptions by region in the 2015-2023 period [Source: Ericsson Mobility Report, 2017]**

As of today, North America and Asia Pacific have led the VoLTE take-up across the world. Indeed, in the US, Japan, South Korea and Canada, VoLTE uptake is notably high, with most networks having more than 60% of voice calls using VoLTE.

On the other hand, Europe has not experienced a remarkable proliferation of this service so far. A possible explanation for this is that many launched networks still require subscribers to configure VoLTE themselves in the device settings. According to the recent experience in other countries, past launches of this service demonstrate that for VoLTE usage to proliferate, automatic operator provisioning is necessary.

### ***What is next?***

As new technologies continue to advance networks, the transition to VoLTE service will be rapidly accelerating. There are advantages to both telecommunications operators and consumers over the long term, which need to be exploited to realise the development of VoLTE.

There are already success stories of VoLTE mass adoption, especially in North America and Asia Pacific, which can be replicated in other jurisdictions, such as Europe or Latin America.

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