

Swisscom launches the next step in LTE technology

Surf the Internet, watch videos or work more efficiently while on the move: smartphones and tablets are a constant companion for many people. The ever-rapidly growing volume of data traffic means that the mobile network needs to be expanded continuously. After having introduced 4G/LTE at the end of 2012 and 4G+ (LTE advanced) in mid-2014, Swisscom is now testing 4G/LTE bandwidths of up to 450 Mbps. Customers are expected to be able to take advantage of the higher speeds from the end of 2015. It will also be possible to make phone calls via 4G/LTE from summer next year, too.

The volume of wireless data traffic doubles every year. The majority of Swisscom's over six million mobile customers use mobile data communication, while 71% of all customers use a smartphone and 25% browse the web on the high-speed 4G/LTE network. The strong growth is set to continue at the same pace, as about 90% of all of the smartphones sold by Swisscom are 4G/LTE-compatible. "The intensive usage of smartphones, however, has also resulted in increased expectations as regards high-speed mobile Internet connections and high service availability. Swisscom is therefore constantly upgrading its mobile networks," says Swisscom Head of Networks Heinz Herren, summing up the challenges faced by the telecoms provider.

Up to three-times faster 4G/LTE speeds with 4G+

Over 94% of Swisscom customers can already use the 4G/LTE network today. Over the past few weeks, Swisscom has even been offering access to 4G+ in limited locations with theoretical bandwidths of up to 300 Mbps. The first smartphones that support these bandwidths are now available. 4G+ will be available in the cities of Berne, Biel, Lausanne, Zurich, Geneva, Lucerne, Lugano and Basel by the end of 2014, with approximately 30% of the population benefiting from the high-speed network by the end of 2015. Nevertheless, Swisscom is already conducting tests on the next generation of technology. At a media event held in Ittigen, near Berne, Swisscom demonstrated the bundling of three 4G/LTE frequencies, which allows for theoretical bandwidths of up to 450 Mbps. The bundling and higher bandwidths mean that far more customers can use these radio cells simultaneously and at a constant high speed. This ensures that all mobile customers are able to take

advantage of the increased network capacity. The next step in technology is set to become available for Swisscom customers at the end of 2015. Swisscom expects that the first smartphones to be able to support these speeds will be available at this point in time also.

Make calls on the 4G/LTE network using VoLTE

The current LTE network is purely a data network. In contrast to the older 2G and 3G networks, it is not possible to make calls via LTE. At this moment in time, an LTE mobile phone automatically connects to the 2G or 3G network when making a call. The smartphone only reconnects to the high-speed 4G/LTE network once the customer ends the call. Using Voice over LTE (VoLTE), Swisscom will also offer the possibility of making calls on the LTE network from the middle of 2015. Thanks to this technology, customers will be able to make use of IP telephony, which will be transferred over the 4G/LTE network as data. With VoLTE, customers will benefit from an ultra high-speed connection and significantly improved voice quality in comparison with a call made on the 2G network. Swisscom expects the first devices to support this technology to be available by summer of the coming year.

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