

# **Voice over LTE Market by Long-Term Evolution (Technology-FDD and TDD, End User Devices-Smart Phones, Dongles, and Routers), by Technology (CSFB, VOIMS, and Dual Radio/SVLTE), and by Geography - Analysis & Forecast to 2014 - 2020**

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## **Abstracts**

The voice over LTE market report analyzes the ecosystem of the network technologies; and the key market, by technology, includes VoIMS, CSFB and dual radio/SVLTE; by LTE market includes LTE and voice over LTE subscriptions, network launches, LTE network modes and end user devices. The report also provides the geographic view for major regions such as the Americas, Europe, Asia Pacific (APAC), and the Rest of the World (ROW). This report also discusses the burning issues, market dynamics, and winning imperatives for the voice over LTE market.

The voice over LTE is garnering more value due to its various features and technologies that are used in the voice over LTE market. The advantages provided by VoLTE such as High Definition (HD) voice, Rich Communication Services (RCS), faster call setup times, and true device interoperability, integration of voice over LTE with voice over Wi-Fi service, and improved battery life over other network technologies— have attracted the new users towards it. The CFSB technology held the highest market share in 2013 but the VoIMS technology is estimated to experience a better growth in the near future.

The voice over LTE market accounts for the largest market share in developed economies like the APAC. The Americas and Europe are also estimated to grow at a high rate in the projected years. The key players in the VoLTE market include Huawei Technologies Co. Ltd. (China), Nokia Solutions and Networks (Finland), Ericsson (Sweden), Alcatel-Lucent (France), LG Uplus (South Korea), SK Telecom (South Korea), Metro PCS (U.S.), AT&T Inc. (U.S.), KT Corp. (South Korea), and Verizon Wireless

(U.S.), among others.

The report provides a detailed view of the VoLTE and LTE market with regard to the subscriptions, LTE and VoLTE network launches, and LTE and VoLTE technologies market; and also presents detailed market segmentation, with qualitative and quantitative analysis of each and every aspect of the segmentation; done by technology, LTE end user devices, and on the basis of the LTE and VoLTE market, by geography. All the numbers in terms of the volume and revenue, at every level of report, are forecasted from 2014 to 2020.

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## About

In this report, we have covered two markets, namely the LTE and VoLTE market. The LTE market comprises LTE infrastructure, end user devices, and services. The LTE (Long Term evolution) is wireless communication of high speed data in case of mobile phones and data terminals. It is denoted as 4G LTE in the market. The definition of voice over LTE for this study is as follows: Voice over LTE (VoLTE) is a network technology that defines the standards and procedures for delivering voice and data over 4G LTE networks.

It is implemented in smartphones, tablets and other communication devices for delivering high-speed voice, video, and messaging services on a 4G wireless network. The base year considered for the market engineering process is 2013 and the forecast is given from 2014 to 2020. Market dynamics like driver restraints and opportunities are analyzed and optimized from the opinions of the market leaders and market experts assuming 2013 as a base year.

The forecasts are done with the value and volume calculated under the standard assumption that the globally accepted currency - the U.S. Dollar's value remains constant over the seven forecast period of 2014 to 2020.

For conversion of various currencies to USD, average historical exchange rates were used according to the year specified. For all historical and current exchange rates required for calculations and currency conversions, OANDA - website was used in this research study.

### LTE market:

The LTE market is segmented into two types of technologies, the FDD and TDD.

The LTE market study analyzes the commercial LTE launches and LTE subscriptions, worldwide. Various devices that are LTE enabled, such as smartphones, routers, and dongles, are also considered in the study.

The LTE market is also covered geographically for major regions including Americas, Europe, Asia-Pacific. and the Rest of the World.

### Voice over LTE market

In the voice over LTE market for technologies, the VoIMS, CSFB, and other VoLTE technologies are considered separately. The other voice over LTE market includes voice over WiFi.

The voice over LTE market study analyzes the commercial launches of VoLTE.

In order to analyze the voice over LTE market geographically, it is segmented into Americas, Europe, Asia-Pacific, and ROW.

Voice over LTE is based on the IP Multimedia Subsystem (IMS) network wherein the voice and data is sent over the same network, that is, the LTE network, which results in reduction in the operational and maintenance costs. Moreover, VoLTE has up to three times more voice and data capacity than 3 UMTS and up to six times more capacity than 2G GSM. Wireless operators throughout the world are moving toward replacing their old technologies with this new technology. It is becoming a popular technology as it offers features such as high voice definition, faster call set up times, and improved battery life over other VoIP applications.

The VoLTE market was valued at \$XX million in 2013 and is expected to reach \$XX million by 2020; estimated to grow at a CAGR of XX% from 2014 to 2020. The growth of the VoLTE market is primarily driven by factors such as increased spectrum efficiency, rapid deployment of smart devices, reduced operational and maintenance costs, and increased adoption of VoLTE solutions by telecom operators. Less availability of VoLTE enabled devices and no carrier interoperability are the main restraining factors for the decline of the voice over LTE market, whereas implementation of network function virtualized IMS core, growing demand for mobile Unified Communications (UC), and variable pricing strategies are some of the major opportunities for the mobile network operators in VoLTE market.

In this report, based on technology, the LTE market is broadly segmented into time division duplexing network mode and frequency division duplexing mode. In 2013, LTE market was estimated at \$XX billion, and is expected to grow at a CAGR of XX% from 2014 to 2020 so as to reach \$XX billion by 2020. Based on the end user devices, the LTE market is divided into smartphones, routers, dongles; and others such as notebooks, tablets, and modules. Based on geography, the market is segmented into four regions, namely Americas, Europe, Asia-Pacific, and the Rest of the World (RoW).

Based on technology, the voice over LTE market is segmented into Circuit Switched Fallback (CSFB), dual radio or Simultaneous Voice and LTE (SVLTE) and Voice over IMS (VoIMS). CSFB dominated the global VoLTE market at an estimated \$XX million in 2013, while VoIMS technology is expected to grow at a faster rate of XX% from 2014 to 2020, as compared to other technologies, as it offers several advantages over others; such as, increased spectrum efficiency, reduced latency, and integration of voice over Wi-Fi services.

Americas accounted for the largest share of ~XX% of the LTE market in 2013. Key players such as Verizon Wireless (U.S), AT&T Inc. (U.S.), and T-Mobile (U.S.) have been primarily involved in activities such as contracts, partnerships, and new product launches; which are helping to drive the LTE market in Americas, while Asia-Pacific accounted for the largest share in VoLTE market in 2013. There are a number of mobile network operators in the Asia-Pacific region that have been actively participating in the launching of VoLTE solutions. The world's first VoLTE solution was successfully launched by SK Telekom (South Korea) in August 2012, followed by LG Uplus (South Korea) and KT Corp (South Korea). Recently, NTT Docomo (Japan) and SingTel (Singapore) launched the VoLTE services. Some operators such as Bharati Airtel (India) and Reliance Jio (India) are yet involved in the trialing phase of VoLTE solutions. Increased spectrum efficiency, faster calls set up times, and increased Average Revenue Per User (ARPU) are factors which are motivating operators to adopt VoLTE solutions on large scale; while rich communication services, integration of voice over LTE, high definition of voice, true device interoperability, and improved battery life as compared to VoIP applications— are some aspects that are motivating customers to avail VoLTE services.

Key players in the LTE and voice over LTE market include Huawei Technologies Co. Ltd.(China), Nokia Solutions and Networks (Finland), Ericsson (Sweden), Alcatel-Lucent (France), LG Uplus (South Korea), SK Telecom (South Korea), Metro PCS (U.S.), AT&T Inc. (U.S.), KT Corp. (South Korea), and Verizon Wireless (U.S.).



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