

The LTE, LTE-Advanced & 5G Ecosystem: 2016 – 2030 – Infrastructure, Devices, Operator Services, Verticals, Strategies & Forecasts

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Abstracts

As a natural upgrade path for mobile operators from the previously detached GSM, CDMA and TD-SCDMA ecosystems, LTE has emerged as the first truly global mobile communications standard. Commonly marketed as the "4G" standard, LTE promises to provide higher data rates and lower latency at a much lower TCO (Total Cost of Ownership) than 3G technologies.

The TCO and performance is further enhanced by deployment of small cells and the LTE-Advanced standard, which improves performance and data rates using features such as the aggregation of carriers, interference management and advanced antenna techniques.

With over 500 fully commercial network launches, LTE has become a mainstream technology, and a number of mobile operators have already deployed LTE-Advanced technology. SNS Research estimates that LTE service revenues will account for over \$600 Billion in 2016. The figure is further expected to grow at a CAGR of more than 5% over the next four years.

While LTE and LTE-Advanced deployments are still underway, mobile operators and vendors have already embarked on R&D initiatives to develop so-called "5G" networks, with a vision of commercialization by 2020. 5G is essentially a revolutionary paradigm shift in wireless networking to support the throughput, latency, and scalability requirements of future use cases such as extreme bandwidth augmented reality applications and connectivity management for Billions of M2M (Machine to Machine) devices.



By 2020, LTE and 5G infrastructure investments are expected to account for a market worth \$32 Billion. This includes spending on distributed macrocells, small cells, C-RAN architecture equipment and mobile core solutions.

The "LTE, LTE-Advanced & 5G Ecosystem: 2016 – 2030 – Infrastructure, Devices, Operator Services, Verticals, Strategies & Forecasts" report presents an in-depth assessment of the LTE, LTE-Advanced and 5G ecosystem including key market drivers, challenges, technologies, service revenue potential, deployment strategies, vertical market opportunities, mobile operator case studies, R&D initiatives, future roadmap, value chain, vendor assessment and market share. The report also tracks revenue and shipments for both infrastructure and devices, along with subscription and service revenue from 2016 through to 2030.

The report comes with an associated Excel datasheet suite covering quantitative data from all numeric forecasts presented in the report.



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LIST OF COMPANIES MENTIONED

3GPP (3rd Generation Partnership Project) 5G-PPP Abu Dhabi Police Accelerated Concepts Accelleran Adax Affirmed Networks **Airspan Networks** Airvana Alcatel-Lucent **Altiostar Networks** Apple Arcadyan Technology Corporation Argela ARItel Artemis Networks ASOCS ASTRI (Hong Kong Applied Science and Technology Research Institute) ASUS (ASUSTeK Computer) AT&T AT&T Mobility Athonet Axxcelera Broadband Wireless BaiCells **BBK Electronics Corporation Beach Energy Belkin International** BlackBerry **Brocade Communications Systems** BT Group



Busan Transportation Corporation Casa Systems China Mobile China Southern Power Grid **Cisco Systems** CommAgility CommScope Connectem Contela Coolpad **Core Network Dynamics Datang Group Datang Mobile D-Link Corporation** Dovado DT (Deutsche Telekom) **Eden Rock Communications** EE Ericsson Etisalat ETRI (Electronics and Telecommunications Research Institute) Facebook Fraunhofer Fokus Fujitsu Gemtek Technology Company **GENBAND General Dynamics Corporation** General Dynamics Mission Systems Gionee Google GWT (Global Wireless Technologies) Harris County Hitachi Home Office, UK **HTC** Corporation Huawei IETF (Internet Engineering Task Force) ip.access ITU (International Telecommunication Union)



ITU-R (ITU Radiocommunication Sector) JRC (Japan Radio Company) Juni Global **KDDI** Corporation **KT** Corporation Kumu Networks **Kyocera Corporation** Lemko Corporation Lenovo LG Electronics LG Uplus Linksys LTE-U Forum Luminate Wireless M1 Mavenir Systems MediaTek Meizu **Microsoft Corporation** Mitel Networks Corporation MOF (Ministry of Oceans and Fisheries, South Korea) Moseley Associates Motorola Mobility Motorola Solutions MPSS (Ministry of Public Safety and Security, South Korea) MulteFire Alliance **NEC** Corporation **NEC Mobile Communications** Netgear New Postcom Equipment Company Nokia Networks **Novatel Wireless** NTT DoCoMo **NuRAN** Wireless Nutag O3b Networks **Oceus Networks**

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Panasonic Corporation Pantech Phluido **Polaris Networks** Potevio (China Potevio Company) Qatar MOI (Ministry of Interior) Qualcomm **Quanta Computer** Qucell Quortus **Redline Communications Ruckus Wireless** Samji Electronics Company Samsung Electronics Samsung Group SerComm Corporation SES Sharp Corporation Sierra Wireless Singtel SK Telecom **SK** Telesys SoftBank Group Sony Mobile Communications SpiderCloud Wireless Spreadtrum Sprint Corporation Star Solutions STC (Saudi Telecom Company) Sunnada (Fujian Sunnada Communication Company) Tampnet **TCL** Communication Tecore **TEKTELIC** Communications **Telrad Networks** Telum Telus **TEN** (Texas Energy Network) T-Mobile USA



TrustComm U.S. Navy UQ Communications Verizon Communications Verizon Wireless Vivo Vodacom Group Vodafone Group Wi-Fi Alliance WNC (Wistron NeWeb Corporation) Xiaomi Z-com (ZDC Wireless) ZTE ZyXEL Communications Corporation



About

The report covers the following topics:

LTE and LTE-A ecosystem

5G technology, initiatives and R&D commitments

LTE infrastructure (FDD/TDD macrocell base stations, small cells & EPC)

LTE devices (smartphones and other form factors)

LTE subscriptions and service revenue (FDD and TDD)

LTE infrastructure and device vendor market share

LTE operator reviews and network deployment case studies

LTE Broadcast (eMBMS) and VoLTE

Market drivers and barriers

Wireless network infrastructure industry roadmap and value chain

Company profiles and strategies of LTE ecosystem players

Market analysis and forecasts from 2014 till 2020

The report has the following key findings:

In 2014 wireless carriers will pocket nearly \$103 Billion from commercial LTE service revenues

LTE and LTE-Advanced service revenues are further expected to grow at a CAGR of nearly 40% over the next 6 years, eventually accounting for \$672 Billion by the end of 2020



By 2020 nearly 50% of all LTE subscriptions will be on LTE-Advanced networks

Samsung and Apple lead LTE-enabled smartphone shipments with a combined market share of 73%

LTE infrastructure spending is expected to account for nearly \$15 Billion by the end of 2014. This includes spending on LTE macrocells, small cells and EPC/mobile core equipment

Huawei and Ericsson lead the LTE infrastructure market with a combined market share of 44%

Samsung is expected to significantly increase its stake in LTE infrastructure contracts, and eventually become a Tier-1 vendor by 2017

Wireless carriers and vendors will spend at least \$1 Billion per annum in R&D spending to drive standardization and commercialization of 5G technology



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