

WinterGreen Research, Inc.

**LTE Wireless Infrastructure: Market Shares, Strategies, and Forecasts,
Worldwide, 2013 to 2019**

LTE Wireless Infrastructure Globally Integrated Next Generation Networks

Mountains of Opportunity



Picture by Susan Eustis

WinterGreen Research, Inc.

Lexington, Massachusetts

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REPORT # SH25711114

410 PAGES

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CHECK OUT THESE KEY TOPICS

Wireless Infrastructure
CDMA2000
GSM
Global System for Mobile
Communications
W-CDMA

Wideband Code Division
Multiple Access
LTE
Long-Term Evolution
Global Mobile Traffic
Femtocell

Small Cell
Broadband Cellular Networks
Mobile Packet Core
Mobile Broadband1

LTE Wireless Infrastructure Strategy: Internet Based Systems Enabled on Smart Phones

LTE Wireless Infrastructure: Market Shares, Strategies, and Forecasts, Worldwide, 2013-2019

Next Generation LTE Wireless Infrastructure: Cloud, Tablets, and Mobile Devices Apps

LEXINGTON, Massachusetts (October 1, 2013) – WinterGreen Research announces that it has published a new study LTE Wireless Infrastructure: Market Shares, Strategy, and Forecasts, Worldwide, 2013 to 2019. Next generation systems are leveraging new LTE technology. The 2013 study has 410 pages, 198 tables and figures. Worldwide LTE Wireless Infrastructure markets are poised to achieve significant growth as Building out core networks and backhaul for smart phones.

LTE has brought a reassessment of operator choices of Packet Core vendor. The LTE wireless infrastructure market is expected to see sustained investment. LTE provides service providers efficient ways to carry larger traffic volumes. 110MHz BW is going to be required by 2015. A 65MHz auction in April 2013 provided more bandwidth. Traffic average throughput per user is expected to double in 2013.

Video and image exchange is accounting for a large part of the growth in network usage. LTE has been an entry point for Ericsson among others. Ericsson offers high capacity multi-access and multi-application systems.

Ericsson offers the SSR 8000 family of smart services routers and a blade system. LTE has strengthened Ericsson market position with existing and new customers.

Demographic implications are endemic to the industry.

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It took only 2.5 years for LTE to reach 90.2 percent of U.S. households

80.5 percent of the U.S. population can choose from five or more mobile operators

There are 1,251 wired broadband operators in the U.S.

There are 1,472 network coverage patterns from 878 worldwide mobile operators

A smart phone is not very smart if the infrastructure can't support its applications. In response to the high growth smart phone markets, wireless infrastructure promises to grow dramatically in the near term.. Wireless Infrastructure technologies include WiMax, LTE, 4G and HSPA. These technologies are driving much higher capacity from the base station back to the fiber core. Fiber core is putting extreme pressure on provider's infrastructure and backhaul networks.

WinterGreen Research predicts that the dramatic growth of wireless infrastructure is based on the growth of smart phones and apps. LTE wireless infrastructure markets at \$3.9 billion in 2012, is anticipated to reach \$78 billion by 2018.

According to Susan Eustis, lead author of the study, "LTE Wireless Infrastructure is being installed to upgrade core networks and upgrade backhaul and base stations to make systems more modern. Infrastructure for the Internet and for smart mobile devices creates demand for more sophisticated web development and web applications that in turn depend on more sophisticated infrastructure. Everything is going mobile. This evolution is driven by mobile smart phones and tablets that provide universal connectivity. Modern systems represent a significant aspect of Internet market evolution."

The proportions of wireless infrastructure market industry segments are expected to remain much as they are, with the small cells and femtocells achieving strong growth on the access side, the core infrastructure must be upgraded to support the added backhaul backbone infrastructure. Wireless apps are expected to achieve \$37 trillion revenue by 2019. This unbelievable growth occurs as the Internet is expanded to implement the interconnection of everything.

Digital devices proliferate, machine to machine capabilities vastly expand instrumentation. The digital devices become the engine of a world economy, with apps collecting pennies a day for millions of apps from 8.5 billion people with smart phones by 2019.

WinterGreen Research is an independent research organization funded by the sale of market research studies all over the world and by the implementation of ROI models that are used to calculate the total cost of ownership of equipment, services, and software. The company has 35 distributors worldwide, including Global Information Info Shop, Market Research.com, Research and Markets, Bloomberg, electronics.ca, and Thompson Financial.

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WinterGreen Research is positioned to help customers facing challenges that define the modern enterprises. The increasingly global nature of science, technology and engineering is a reflection of the implementation of the globally integrated enterprise. Customers trust wintergreen research to work alongside them to ensure the success of the participation in a particular market segment.

WinterGreen Research supports various market segment programs; provides trusted technical services to the marketing departments. It carries out accurate market share and forecast analysis services for a range of commercial and government customers globally. These are all vital market research support solutions requiring trust and integrity.

Key words: Wireless Infrastructure CDMA2000 GSM Global System for Mobile Communications W-CDMA Wideband Code Division Multiple Access LTE Long-Term Evolution Global Mobile Traffic Femtocell Small Cell Broadband Cellular Networks Mobile Packet Core Mobile Broadband Virtualized Systems, Open Source

Companies Profiled

Market Leaders

Alcatel-Lucent
Ericsson
Google / Motorola
Samsung
NEC
ZTE

Cisco
Fujitsu
Huawei
LG
Nokia

Market Participants

Antenova
Berkeley-Varitronics Systems
CDG
General Dynamics
Global Mobile Suppliers
Association

Juniper Networks
Micro Mobio
MTI Mobile
Nokia-Microsoft Partnership
Nokia Siemens Networks
QRC Technologies

Qualcomm
Radisys
Repeaters Australia
Reactel
RF Hitec
Siemens AG

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Spirent Communications
TelLabs

TelNova Technologies

LTE Wireless Infrastructure: Market Shares, Strategies, and Forecasts, Worldwide, 2013 to 2019

Report Methodology

This is the 571th report in a series of primary market research reports that provide forecasts in communications, telecommunications, the Internet, computer, software, telephone equipment, health equipment, and energy. Automated process and significant growth potential are priorities in topic selection. The project leaders take direct responsibility for writing and preparing each report. They have significant experience preparing industry studies. Forecasts are based on primary research and proprietary data bases.

The primary research is conducted by talking to customers, distributors and companies. The survey data is not enough to make accurate assessment of market size, so WinterGreen Research looks at the value of shipments and the average price to achieve market assessments. Our track record in achieving accuracy is unsurpassed in the industry. We are known for being able to develop accurate market shares and projections. This is our specialty.

The analyst process is concentrated on getting good market numbers. This process involves looking at the markets from several different perspectives, including vendor shipments. The interview process is an essential aspect as well. We do have a lot of granular analysis of the different shipments by vendor in the study and addenda prepared after the study was published if that is appropriate.

Forecasts reflect analysis of the market trends in the segment and related segments. Unit and dollar shipments are analyzed through consideration of dollar volume of each market participant in the segment. Installed base analysis and unit analysis is based on interviews and an information search. Market share analysis includes conversations with key customers of products, industry segment leaders, marketing directors, distributors, leading market participants, opinion leaders, and companies seeking to develop measurable market share.

Over 200 in depth interviews are conducted for each report with a broad range of key participants and industry leaders in the market segment. We establish accurate market forecasts based on economic and

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market conditions as a base. Use input/output ratios, flow charts, and other economic methods to quantify data. Use in-house analysts who meet stringent quality standards.

Interviewing key industry participants, experts and end-users is a central part of the study. Our research includes access to large proprietary databases. Literature search includes analysis of trade publications, government reports, and corporate literature.

Findings and conclusions of this report are based on information gathered from industry sources, including manufacturers, distributors, partners, opinion leaders, and users. Interview data was combined with information gathered through an extensive review of internet and printed sources such as trade publications, trade associations, company literature, and online databases. The projections contained in this report are checked from top down and bottom up analysis to be sure there is congruence from that perspective.

The base year for analysis and projection is 2010. With 2010 and several years prior to that as a baseline, market projections were developed for 2011 through 2017. These projections are based on a combination of a consensus among the opinion leader contacts interviewed combined with understanding of the key market drivers and their impact from a historical and analytical perspective.

The analytical methodologies used to generate the market estimates are based on penetration analyses, similar market analyses, and delta calculations to supplement independent and dependent variable analysis. All analyses are displaying selected descriptions of products and services.

This research includes referencde to an ROI model that is part of a series that provides IT systems financial planners access to information that supports analysis of all the numbers that impact management of a product launch or large and complex data center. The methodology used in the models relates to having a sophisticated analytical technique for understanding the impact of workload on processor consumption and cost.

WinterGreen Research has looked at the metrics and independent research to develop assumptions that reflect the actual anticipated usage and cost of systems. Comparative analyses reflect the input of these values into models.

The variables and assumptions provided in the market research study and the ROI models are based on extensive experience in providing research to large enterprise organizations and data centers. The ROI models have lists of servers from different manufacturers, Systems z models from IBM, and labor costs by category around the world. This information has been developed from WinterGreen research proprietary data bases constructed as a result of preparing market research studies that address the software, energy, healthcare, telecommunications, and hardware businesses.

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YOU MUST HAVE THIS STUDY

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2013 to 2019**

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LTE Wireless Infrastructure: Market Shares, Strategies, and Forecasts, Worldwide, 2013-2019

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LTE Wireless Infrastructure Executive Summary

The study is designed to give a comprehensive overview of LTE Wireless Infrastructure equipment market segment. Research represents a selection from the mountains of data available of the most relevant and cogent market materials, with selections made by the most senior analysts. Commentary on every aspect of the market from independent analysts creates an independent perspective in the evaluation of the market. In this manner the study presents a comprehensive overview of what is going on in this market, assisting managers with designing market strategies likely to succeed.

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This section describes selected companies and selected products. Products for this market segment are described with attention to the most significant aspect of features and functions in this category of product. The juxtaposition of a range of different product descriptions from a single market category provides a really good way to access market directions and achieve market competitive analysis. This section is useful because it compliments other views of innovation, providing a clear presentation of all the alternatives for positioning products in this market. Company products are described in the appropriate sections, meaning a company is mentioned several times in the chapter in different places.

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ABOUT THE COMPANY

WinterGreen Research, founded in 1985, provides strategic market assessments in telecommunications, communications equipment, health care, Software, Internet, Energy Generation, Energy Storage, Renewable energy, and advanced computer technology.

Industry reports focus on opportunities that expand existing markets or develop major new markets. The reports access new product and service positioning strategies, new and evolving technologies, and technological impact on products, services, and markets. Innovation that drives markets is explored. Market shares are provided. Leading market participants are profiled, and their marketing strategies, acquisitions, and strategic alliances are discussed. The principals of WinterGreen Research have been involved in analysis and forecasting of international business opportunities in telecommunications and advanced computer technology markets for over 30 years.

The studies provide primary analytical insight about the market participants. By publishing material relevant to the positioning of each company, readers can look at the basis for analysis. By providing descriptions of each major participant in the market, the reader is not dependent on analyst assumptions, the information backing the assumptions is provided, permitting readers to examine the basis for the conclusions.

WinterGreen Research is positioned to help customers facing challenges that define the modern enterprises. The increasingly global nature of science, technology and engineering is a reflection of the implementation of the globally integrated enterprise. Customers trust wintergreen research to work alongside them to ensure the success of the participation in a particular market segment.

WinterGreen Research supports various market segment programs; provides trusted technical services to the marketing departments. It carries out accurate market share and forecast analysis services for a range of commercial and government customers globally. These are all vital market research support solutions requiring trust and integrity.

ABOUT THE PRINCIPAL AUTHORS

Ellen T. Curtiss, Technical Director, co-founder of WinterGreen Research, conducts strategic and market assessments in technology-based industries. Previously she was a member of the staff of Arthur D. Little, Inc., for 23 years, most recently as Vice President of Arthur D. Little Decision Resources, specializing in strategic planning and market development services. She is a graduate of Boston University and the Program for Management Development at Harvard Graduate School of Business Administration. She is the author of recent studies on worldwide telecommunications markets, the top ten internet equipment companies, the top ten contract manufacturing companies, and the Top Ten Telecommunications market analysis and forecasts.

Susan Eustis, President, co-founder of WinterGreen Research, is a senior analyst. She has done research in communications, healthcare equipment, and computer markets and applications. She holds several patents in microcomputing and parallel processing. She has the original patents in electronic voting machines. She has new patent applications in format varying, multiprocessing, and electronic voting. She is the author of recent studies of the Internet, Cloud Computing marketing strategies, Internet equipment, biometrics, a study of Healthcare Equipment, Worldwide Telecommunications Equipment, Top Ten Telecommunications, Digital Loop Carrier, Web Hosting, Web Services, and Application Integration markets. Ms. Eustis is a graduate of Barnard College. Ms. Eustis was named Top Woman CEO in 2012 by Who's Who Worldwide. She was named Top Woman Market Research Analyst the same year.

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