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The Wireless Network Infrastructure Bible: 2014 – 2020 - Macrocell RAN, Small Cells, RRH, DAS, Cloud RAN, Carrier WiFi, Mobile Core & Backhaul

https://marketpublishers.com/r/W4F5FC73847EN.html
Date: December 2013
Pages: 391
Price: US$ 2,500.00 (Single User License)
ID: W4F5FC73847EN

Abstracts

The term “Wireless Network Infrastructure” has conventionally been associated with macrocell Radio Access Network (RAN) and mobile core network infrastructure, which SNS Research estimates to account for nearly $52 Billion in spending by the end of 2014.

However, the scope of the term is expanding as wireless carriers increase their investments in Heterogeneous Network or HetNet infrastructure encompassing WiFi, small cells, Distributed Antenna Systems (DAS), Remote Radio Heads (RRH) and the emerging Cloud RAN concept. Driven by the promise of added capacity and coverage with minimum investment in additional spectrum, HetNet infrastructure is expected to account for nearly $17 Billion in spending by the end of 2014.

While macrocell RAN spending is forecast to decline at a CAGR of 3% over the next 6 years, SNS Research estimates that the overall wireless network infrastructure market encompassing macrocell RAN, HetNet, mobile core and backhaul infrastructure will witness tremendous growth over the coming years. Growing at a CAGR of over 5%, the market will account for over $104 Billion in annual spending by the end of 2020.

Complimenting this growth would be over $1 Billion worth of annual R&D investments on 5G mobile technology by wireless carriers, vendors and vertical market players alike, in a bid to further enhance the capacity, speed and performance of future mobile networks.

The “Wireless Network Infrastructure Bible: 2014 – 2020 - Macrocell RAN, Small Cells, RRH, DAS, Cloud RAN, Carrier WiFi, Mobile Core & Backhaul” report presents an in-

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depth assessment of 9 individual submarkets of the wireless network infrastructure opportunity. Besides analyzing the key market drivers, challenges, operator revenue potential, regional CapEx commitments, expert interviews and vendor strategies, the report also presents revenue and unit shipment forecasts for the market from 2014 to 2020 at a regional as well as a global scale. Historical figures are also provided for 2010, 2011 and 2013.

The report comes with an associated Excel datasheet suite covering quantitative data from over 400 numeric forecasts presented in the report.

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LIST OF COMPANIES MENTIONED

“R” (Spain)
21 VIANET GROUP
2K TELECOM
3 AUSTRIA
3 DENMARK
3 HK
3 IRELAND
3 ITALIA
3 SWEDEN
365 MEDIA
3ROAM
4IPNET
6WIND
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Alcatel-Lucent
Alfa
Algar Telecom (CTBC)
Algerie Telecom
Alpha Networks
Altel
Altera
Alvarion
Andorra Telecom
Andrew/CommScope
Anite
Antares Group
Antel
Anvaya Networks
Aptilo
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Babilon Mobile
Bakcell
Bakrie Telecom
Batelco
Bayan Telecommunications
BayRICS
Beeline
Beeline Lao
BelAir
BelCel
Belgacom / Proximus
Bell Mobility
BendBroadband
BeST (Life)
BH Telecom
Bharti Airtel
Bhutan Telecom
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C&S
Cable and Wireless
Cambium Networks
Cambridge Broadband Networks (CBNL)
Canoga Perkins
Carolina West Wireless
Carrier Access Corporation
Cavium
CBL Bahamas
CCS
Ceclcom Axiata
CeedTec
Celcite
Cell C
Cellcom
CellO (Optiway and Cellvine)
Celtro
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Ceragon
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Colorado Valley
Comba
Comba Telecom
Commnet Wireless
Communication Components Inc. (CCI)
Contela
ConteXtream
Convergence Technologies
Copper Valley Telecom
Corning/MobileAccess
Cosmote
COTA Murcia4G
Cross Telephone
Crown Castle
CSI
CSL Limited
Custer Telephone
Cyan
Datame
Datang Mobile
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E-Band Communications
ECI Telecom
Econet Wireless
Eden Rock Communications
Edgewater
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EION
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Firetide
Fitel
Fjarskipti (Vodafone Iceland)
Fortinet
FPT Telecom
Fraunhofer-Gesellschaft
Freescale Semiconductor
Fujitsu
Gemtek
Genband
Georgia Magticom
Glo Mobile
Globacom
Global Mobile
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Intracom
Intucell Systems (Acquired by Cisco)
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Iowa Statewide Interoperable Communications Board (ISICSB)
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IPITEK
Islandcom
IT&E Guam
JDSU (Arieso)
Juni
Juniper
Juniper Networks
Kcell
KDDI
Kentrox
Kordia
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Maxis
MaxyTel
Megafon
Menatelecom
Meru Networks
Mesaplexx
Meteor
Microwave Networks
Mid-Rivers Communications
Milmex
mimoOn
Mindspeed Technologies
Ministry of Industry, Development and Reform Commission - China
Ministry of Science - China
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MTPCS
MTS
MTS Allstream
MTS Belarus
MTS Ukraine
Myanmar P & T
National and Kapodistrian University of Athens
Nawras
NBN Co.
Ncell
NEC
Neo-Sky
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Qualcomm
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RAD Data Systems
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RADWIN
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Redline Communications
REDtone
Reliance
Reverb Networks
RF Window
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RFS (Radio Frequency Systems)
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Syringa Wireless
T Mobile
Tango
Tango Networks
Taqua
Tarana Wireless
Tata Elxsi
TDC
TE Connectivity (Tyco Electronics Connectivity)
Tecom
TEKTELIC
Telcel
Telco Systems
Tele2
Tele2 Kazakhstan
Tele2 Sweden
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Vodafone Qatar
Vodafone Romania
Vodafone Spain
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Vox
VTel Wireless
Vubiq
Wataniya
Wataniya Telecom
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About

What is the Wireless Network Infrastructure Market?

Wireless network infrastructure represents the backbone of all cellular communication networks worldwide. Traditionally restricted to define the macrocell RAN and core network equipment markets, the term “Wireless Network Infrastructure” now entails a multitude of technologies that are utilized to bring a wireless carrier network into operation.

HetNet RAN Market for 2G/3G/4G

In additional to macrocell infrastructure, there are also other options to add additional coverage and capacity to a mobile network. The most common alternatives include strategically deployed small cells and WiFi access points, which have so far been deployed by more than 150 operators worldwide.

Often marketed under the “HetNet” RAN infrastructure banner, other options include alternative deployment models such as Distributed Antenna Systems (DAS) and the emerging Cloud RAN architecture which concentrates the processing of the RAN segment of a mobile network in one or more, centralized data centers.

Interest from Vertical Markets

Unlike traditional voice centric technologies, both WiMAX and LTE have witnessed considerable interest from vertical sectors such as public safety, healthcare, energy, transportation and defense, driven by their interest in mobile broadband applications. We, thus expect that vertical markets to play a role in ongoing LTE investments. In fact, the public safety sector has already witnessed a number of private LTE deployments to serve public safety agencies. We expect public safety LTE infrastructure spending to surpass $5 Billion by the end of 2020.

Global Mobile Network CapEx

Global mobile network CapEx is expected to increase from nearly $170 Billion in 2014 to $203 Billion in 2020, growing at a CAGR of 3%. As macrocell RAN infrastructure spending will decline overtime, operators will invest significant proportions of their CapEx towards HetNet infrastructure and emerging technologies such as NFV & SDN

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software and the required infrastructure to run these.

Initial LTE FDD Rollouts: 2010 - 2011

This period saw significant investments in macrocell FDD LTE infrastructure, with several nationwide rollouts of the technology by tier 1 operators in the US, South Korea and Japan. A lower TCO and a move towards a more widely recognized 3GPP ecosystem was a major motive for many of the early LTE adopters (most were primarily CDMA operators).

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