

The 2G, 3G and 4G Wireless Network Infrastructure Market: 2014 – 2020 – with an Evaluation of WiFi and WiMAX

<https://marketpublishers.com/r/273452D1645EN.html>

Date: October 2014

Pages: 942

Price: US\$ 3,500.00 (Single User License)

ID: 273452D1645EN

Abstracts

The wireless network infrastructure market is currently in a phase of transition as mobile network operators seek to address increasing mobile traffic demands amidst global economic uncertainties. This paradigm shift is bringing new challenges and opportunities to infrastructure vendors.

In 2013, global 2G, 3G and 4G wireless infrastructure revenues stood at \$52 Billion. SNS Research estimates that these revenues, from macrocell RAN (Radio Access Network) and core network investments have largely remained flat in 2014. However, the market is expected to decline at a CAGR of 2% over the next 6 years, eventually shrinking to \$47 Billion by the end of 2020.

Although, the new wave of 4G LTE macrocell RAN and core network investments will not be able to compensate the overall declines in 2G, 3G and WiMAX equipment sales, operators are expected to significantly increase their spending in the evolving HetNet market, which encompasses small cell, carrier WiFi, DAS (Distributed Antenna Systems) and C-RAN (Cloud RAN) equipment. Small cell and carrier WiFi equipment alone will represent a market worth \$4 Billion in 2015. Supplemented further by DAS and C-RAN investments, the HetNet sector is attracting considerable attention from both established vendors as well as startups which solely focus on the market.

Spanning over 900 pages, 'The 2G, 3G and 4G Wireless Network Infrastructure Market: 2014 – 2020 – with an Evaluation of WiFi and WiMAX' report package encompasses two comprehensive reports from covering both the conventional 2G, 3G and 4G wireless network infrastructure market as well as the emerging HetNet market:

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

[The HetNet Bible \(Small Cells, Carrier WiFi, DAS & C-RAN\): 2014 - 2020 - Opportunities, Challenges, Strategies, & Forecasts](#)

This report package provides an in-depth assessment of the 2G, 3G and 4G wireless network infrastructure market and also explores the HetNet and the mobile backhaul markets. Besides analyzing the key market drivers, challenges, regional CapEx commitments and vendor strategies, the report package also presents revenue and unit shipment forecasts for the wireless network infrastructure, small cell, WiFi offload, DAS, C-RAN and the mobile backhaul markets from 2014 to 2020 at a regional as well as a global scale. Historical figures and vendor shares are also provided for 2010 till 2013.

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

Contents

REPORT 1: THE WIRELESS NETWORK INFRASTRUCTURE BIBLE: 2014 – 2020 - MACROCELL RAN, SMALL CELLS, RRH, DAS, C-RAN, CARRIER WIFI, MOBILE CORE & BACKHAUL

1 CHAPTER 1.1: INTRODUCTION

- 1.1 Executive Summary
- 1.2 Topics Covered
- 1.3 Historical Revenue & Forecast Segmentation
- 1.4 Key Questions Answered
- 1.5 Key Findings
- 1.6 Methodology
- 1.7 Target Audience
- 1.8 Companies & Organizations Mentioned

2 CHAPTER 1.2: AN OVERVIEW OF WIRELESS NETWORK INFRASTRUCTURE

- 2.1 What is the Wireless Network Infrastructure Market?
- 2.2 2G: GSM & CDMA
 - 2.2.1 2G Trends & Developments
 - 2.2.2 2G Market Summary
- 2.3 3G: W-CDMA, TD-SCDMA & CDMA2000
 - 2.3.1 3G Trends & Developments
 - 2.3.2 3G Market Summary
- 2.4 4G: LTE, LTE-A & WiMAX
 - 2.4.1 4G Trends & Developments
 - 2.4.2 4G Market Summary
- 2.5 Macrocell RAN Market for 2G/3G/4G
 - 2.5.1 Macrocell RAN Trends & Developments
- 2.6 HetNet RAN Market for 2G/3G/4G
 - 2.6.1 HetNet RAN Trends & Developments
 - 2.6.2 Small Cells
 - 2.6.3 DAS (Distributed Antenna Systems)
 - 2.6.4 C-RAN (Cloud Radio Access Network)
 - 2.6.5 Carrier WiFi
- 2.7 Mobile Core
 - 2.7.1 Mobile Core Trends & Developments

2.8 Mobile Backhaul

2.8.1 Mobile Backhaul Trends & Developments

3 CHAPTER 1.3: MARKET DRIVERS, BARRIERS & RISKS

3.1 Market Drivers

3.1.1 Mobile Subscriptions Growth

3.1.1.1 Asia Pacific

3.1.1.2 Eastern Europe

3.1.1.3 Latin & Central America

3.1.1.4 Middle East & Africa

3.1.1.5 North America

3.1.1.6 Western Europe

3.1.2 Smartphone & Tablet Proliferation

3.1.3 Growing Penetration of Mobile Broadband

3.1.4 Mobile Data Traffic Growth

3.1.5 Interest from Vertical Markets

3.1.6 Reducing the Total Cost of Ownership (TCO)

3.1.7 Replacement of TDM with Ethernet: Continued Growth in Backhaul

3.1.8 Advances in Spectrum Flexibility & Carrier Aggregation: Driving HetNet

Deployments

3.1.9 Strategic Choice for CDMA & WiMAX Operators: Join Mainstream Ecosystem

3.1.10 Address 2G/3G Network Congestion

3.1.11 Bringing Broadband to the Masses

3.1.12 Trend Summary: Which Segments of the Wireless Infrastructure Market Will Witness Growth?

3.2 Barriers & Risks

3.2.1 CapEx Commitments

3.2.2 Spectrum Scarcity

3.2.3 RAN Sharing: A Concept Embraced by Operators

3.2.4 Operators Are Finding Innovative Ways to Address Capacity Issues

3.2.5 Social, Political, Economic and Environmental Threats

3.2.6 Country Specific Risks

3.3 Key Strategic Options for Operators

3.4 Business Case for Investments in New and Existing Technologies

3.4.1 Gain Operational Efficiencies Through Strategic Investments

3.4.2 Invest in Capacity for Increased Revenue Opportunities

3.4.3 Deliver Best User Experience

3.4.4 Reduce Competitive Threats

- 3.4.5 Reserve Network Capacity the M2M Opportunities
- 3.4.6 Increase Customer Satisfaction
- 3.4.7 Capitalize on Differentiation Strategies
- 3.4.8 Evolve towards the Next Generation

4 CHAPTER 1.4: MOBILE NETWORK CAPEX REVIEW

- 4.1 Global Mobile Network CapEx
- 4.2 Regional Split
- 4.3 Top 10 Operators
 - 4.3.1 China Mobile
 - 4.3.2 China Unicom
 - 4.3.3 AT&T Mobility
 - 4.3.4 Verizon Wireless
 - 4.3.5 NTT DoCoMo
 - 4.3.6 SoftBank
 - 4.3.7 Sprint
 - 4.3.8 KDDI
 - 4.3.9 T-Mobile USA
 - 4.3.10 SK Telecom
- 4.4 Asia Pacific Mobile Network CapEx
- 4.5 Eastern Europe Mobile Network CapEx
- 4.6 Latin & Central America Mobile Network CapEx
- 4.7 Middle East & Africa Mobile Network CapEx
- 4.8 North America Mobile Network CapEx
- 4.9 Western Europe Mobile Network CapEx

5 CHAPTER 1.5: MOBILE NETWORK SUBSCRIPTIONS & SERVICE REVENUE REVIEW

- 5.1 Global Mobile Network Subscriptions
- 5.2 Global Mobile Network Service Revenue
- 5.3 Segmentation by Technology
 - 5.3.1 Mobile Network Subscriptions by Technology
 - 5.3.2 Mobile Network Service Revenue by Technology
- 5.4 GSM Subscriptions & Service Revenue
- 5.5 iDEN Subscriptions & Service Revenue
- 5.6 CDMA Subscriptions & Service Revenue
- 5.7 W-CDMA/HSPA Subscriptions & Service Revenue

- 5.8 TD-SCDMA Subscriptions & Service Revenue
- 5.9 FDD LTE Subscriptions & Service Revenue
- 5.10 TD-LTE Subscriptions & Service Revenue
- 5.11 WiMAX Subscriptions & Service Revenue
- 5.12 Regional Split
 - 5.12.1 Mobile Network Subscriptions by Region
 - 5.12.2 Mobile Network Service Revenue by Region
- 5.13 Service Split
 - 5.13.1 Mobile Network Service Revenue by Service Type
 - 5.13.2 Voice Service Revenue
 - 5.13.3 SMS/MMS Service Revenue
 - 5.13.4 Mobile Broadband Service Revenue
- 5.14 Asia Pacific Mobile Network Subscriptions & Service Revenue
- 5.15 Eastern Europe Mobile Network Subscriptions & Service Revenue
- 5.16 Latin & Central America Mobile Network Subscriptions & Service Revenue
- 5.17 Middle East & Africa Mobile Network Subscriptions & Service Revenue
- 5.18 North America Mobile Network Subscriptions & Service Revenue
- 5.19 Western Europe Mobile Network Subscriptions & Service Revenue

6 CHAPTER 1.6: INDUSTRY ROADMAP & VALUE CHAIN

- 6.1 Industry Roadmap
 - 6.1.1 Initial LTE FDD Rollouts: 2010 - 2011
 - 6.1.2 Rise of the HetNet Ecosystem: 2012 - 2013
 - 6.1.3 A Wave of TD-LTE Deployments: 2014 - 2016
 - 6.1.4 Moving Towards “Software Centric” Networking: 2017 - 2019
 - 6.1.5 Start of the 5G Era: 2020 & Beyond
- 6.2 Value Chain
- 6.3 Embedded Technology Ecosystem
 - 6.3.1 Chipset Developers
 - 6.3.2 Embedded Component/Software Providers
- 6.4 RAN Ecosystem
 - 6.4.1 Macrocell RAN OEMs
 - 6.4.2 ‘Pure-Play’ and Specialist Small Cell OEMs
 - 6.4.3 WiFi Access Point OEMs
 - 6.4.4 DAS & Repeater Solution Providers
 - 6.4.5 C-RAN Solution Providers
 - 6.4.6 Other Technology & Network Component Providers/Enablers
- 6.5 Mobile Backhaul Ecosystem

- 6.5.1 Backhaul Solution Providers
- 6.6 Mobile Core Ecosystem
 - 6.6.1 Core Network Infrastructure & Software Providers
- 6.7 Connectivity Ecosystem
 - 6.7.1 2G, 3G & 4G Wireless Carriers
 - 6.7.2 WiFi Connectivity Providers
 - 6.7.3 Small Cells as a Service (SCaaS) Providers
- 6.8 SON Ecosystem
 - 6.8.1 SON Solution Providers
- 6.9 SDN & NFV Ecosystem
 - 6.9.1 SDN & NFV Providers

7 CHAPTER 1.7: EXPERT OPINION – INTERVIEW TRANSCRIPTS

- 7.1 Ericsson
- 7.2 Nokia Networks

8 CHAPTER 1.8: VENDOR LANDSCAPE

- 8.1 Alcatel-Lucent
 - 8.1.1 Portfolio
 - 8.1.2 Strategy
 - 8.1.3 Market Momentum
- 8.2 Cisco
 - 8.2.1 Portfolio
 - 8.2.2 Strategy
 - 8.2.3 Market Momentum
- 8.3 Ericsson
 - 8.3.1 Portfolio
 - 8.3.2 Strategy
 - 8.3.3 Market Momentum
- 8.4 Huawei
 - 8.4.1 Portfolio
 - 8.4.2 Strategy
 - 8.4.3 Market Momentum
- 8.5 Nokia Networks
 - 8.5.1 Portfolio
 - 8.5.2 Strategy
 - 8.5.3 Market Momentum

- 8.6 Samsung
 - 8.6.1 Portfolio
 - 8.6.2 Strategy
 - 8.6.3 Market Momentum
- 8.7 ZTE
 - 8.7.1 Portfolio
 - 8.7.2 Strategy
 - 8.7.3 Market Momentum
- 8.8 Vendor Outlook
 - 8.8.1 Pricing
 - 8.8.2 Portfolio Diversification
- 8.9 Vendor Ranking
 - 8.9.1 Macrocell RAN & Mobile Core
 - 8.9.2 Small Cell RAN
 - 8.9.3 Carrier WiFi
 - 8.9.4 Mobile Backhaul

9 CHAPTER 1.9: GLOBAL MARKET ANALYSIS & FORECASTS

- 9.1 Market Definition
- 9.2 Decomposing the Global Wireless Network Infrastructure Market
- 9.3 Macrocell RAN & Mobile Core
 - 9.3.1 2G/3G vs. 4G Macrocell RAN & Mobile Core Revenue
 - 9.3.2 Macrocell RAN & Mobile Core Revenue by Region
- 9.4 Macrocell RAN Submarket
 - 9.4.1 Macrocell RAN Revenue
 - 9.4.2 Macrocell RAN Base Station Shipments
 - 9.4.3 Segmentation by Infrastructure Component
 - 9.4.4 Segmentation by Region
 - 9.4.5 Segmentation by Technology
 - 9.4.6 Base Station Segmentation by Region
 - 9.4.7 Base Station Segmentation by Technology
 - 9.4.8 GSM Base Station Shipments & Revenue
 - 9.4.9 CDMA2000/EV-DO Base Station Shipments & Revenue
 - 9.4.10 TD-SCDMA Base Station Shipments & Revenue
 - 9.4.11 W-CDMA/HSPA Base Station Shipments & Revenue
 - 9.4.12 LTE FDD Base Station Shipments & Revenue
 - 9.4.13 TD-LTE Base Station Shipments & Revenue
 - 9.4.14 WiMAX Base Station Shipments & Revenue

- 9.4.15 Base Station Controller Segmentation by Region
- 9.4.16 Base Station Controller Segmentation by Technology
- 9.4.17 GSM Base Station Controller Revenue
- 9.4.18 CDMA2000 Base Station Controller Revenue
- 9.4.19 TD-SCDMA Base Station Controller Revenue
- 9.4.20 W-CDMA Base Station Controller Revenue
- 9.5 Mobile Core Submarket
 - 9.5.1 Segmentation by Region
 - 9.5.2 Segmentation by Technology
 - 9.5.3 3G Packet Core Submarket
 - 9.5.4 WiMAX ASN & CSN Submarket
 - 9.5.5 EPC Submarket
- 9.6 Home Location Register (HLR) Submarket
 - 9.6.1 Segmentation by Region
- 9.7 Mobile Switching Subsystem (MSS) Submarket
 - 9.7.1 Segmentation by Region
 - 9.7.2 Segmentation by Submarket
 - 9.7.3 Mobile Switching Center
 - 9.7.4 Mobile Soft Switch
- 9.8 Small Cell RAN Submarket
 - 9.8.1 Small Cell Revenue
 - 9.8.2 Small Cell Unit Shipments
 - 9.8.3 Segmentation by Region
 - 9.8.4 Segmentation by Air Interface Technology
 - 9.8.5 GSM/W-CDMA/HSPA Small Cell Unit Shipments & Revenue
 - 9.8.6 CDMA2000/EV-DO Small Cell Unit Shipments & Revenue
 - 9.8.7 LTE FDD Small Cell Unit Shipments & Revenue
 - 9.8.8 TD-LTE Small Cell Unit Shipments & Revenue
 - 9.8.9 WiMAX Small Cell Unit Shipments & Revenue
 - 9.8.10 Segmentation by Cell Size
 - 9.8.11 Microcell Unit Shipments & Revenue
 - 9.8.12 Picocell Unit Shipments & Revenue
 - 9.8.13 Femtocell Unit Shipments & Revenue
- 9.9 Carrier WiFi Submarket
 - 9.9.1 Carrier WiFi Revenue
 - 9.9.2 Carrier WiFi Unit Shipments
 - 9.9.3 Segmentation by Region
 - 9.9.4 Segmentation by Equipment Type
 - 9.9.5 Carrier WiFi Access Point Unit Shipments & Revenue

- 9.9.6 Carrier WiFi Access Point Controller Unit Shipments & Revenue
- 9.9.7 Segmentation by Integration Approach
- 9.9.8 Managed WiFi Offload Access Point Unit Shipments & Revenue
- 9.9.9 Unmanaged 'Open Access' WiFi Access Point Unit Shipments & Revenue
- 9.10 Distributed Antenna Systems (DAS) Submarket
 - 9.10.1 Segmentation by Region
- 9.11 Remote Radio Head (RRH) Submarket
 - 9.11.1 Remote Radio Head (RRH) Revenue
 - 9.11.2 Remote Radio Head (RRH) Unit Shipments
 - 9.11.3 Segmentation by Region
- 9.12 Macrocell Backhaul Submarket
 - 9.12.1 Segmentation by Region
 - 9.12.2 Segmentation by Technology
 - 9.12.3 ATM
 - 9.12.4 Coaxial Cable
 - 9.12.5 DSL
 - 9.12.6 Ethernet over Copper
 - 9.12.7 Ethernet over Fiber
 - 9.12.8 Microwave Radio
 - 9.12.9 PDH
 - 9.12.10 PON
 - 9.12.11 Satellite
 - 9.12.12 SONET, SDH & WDM
 - 9.12.13 WiMAX
- 9.13 Small Cell Backhaul Submarket
 - 9.13.1 Segmentation by Region
 - 9.13.2 Segmentation by Technology
 - 9.13.3 Ethernet over Copper
 - 9.13.4 Ethernet over Fiber
 - 9.13.5 DSL
 - 9.13.6 NLOS Microwave (Below 6 GHz)
 - 9.13.7 PTP Microwave (6-60 GHz)
 - 9.13.8 PTMP Microwave (6-60 GHz)
 - 9.13.9 Millimeter Wave (unlicensed 60 GHz)
 - 9.13.10 Millimeter Wave (licensed 71-76. 81-86 GHz)
 - 9.13.11 Satellite

10 CHAPTER 1.10: REGIONAL MARKET ANALYSIS & FORECASTS

10.1 Asia Pacific

- 10.1.1 Macrocell RAN and Mobile Core
- 10.1.2 Macrocell RAN
- 10.1.3 Macrocell RAN Base Stations
- 10.1.4 GSM Base Stations
- 10.1.5 CDMA2000/EV-DO Base Stations
- 10.1.6 TD-SCDMA Base Stations
- 10.1.7 W-CDMA/HSPA Base Stations
- 10.1.8 LTE FDD Base Stations
- 10.1.9 TD-LTE Base Stations
- 10.1.10 WiMAX Base Stations
- 10.1.11 Base Station Controller
- 10.1.12 GSM Base Station Controller
- 10.1.13 CDMA2000 Base Station Controller
- 10.1.14 TD-SCDMA Base Station Controller Revenue
- 10.1.15 W-CDMA Base Station Controller Revenue
- 10.1.16 Mobile Core
- 10.1.17 3G Packet Core
- 10.1.18 WiMAX ASN & CSN
- 10.1.19 EPC
- 10.1.20 Home Location Register (HLR)
- 10.1.21 Mobile Switching Subsystem (MSS)
- 10.1.22 Small Cell RAN
- 10.1.23 Carrier WiFi
- 10.1.24 Distributed Antenna Systems (DAS)
- 10.1.25 Remote Radio Head (RRH)
- 10.1.26 Macrocell Backhaul
- 10.1.27 Small Cell Backhaul

10.2 Eastern Europe

- 10.2.1 Macrocell RAN and Mobile Core
- 10.2.2 Macrocell RAN
- 10.2.3 Macrocell RAN Base Stations
- 10.2.4 GSM Base Stations
- 10.2.5 CDMA2000/EV-DO Base Stations
- 10.2.6 W-CDMA/HSPA Base Stations
- 10.2.7 LTE FDD Base Stations
- 10.2.8 TD-LTE Base Stations
- 10.2.9 WiMAX Base Stations
- 10.2.10 Base Station Controller

- 10.2.11 GSM Base Station Controller
- 10.2.12 CDMA2000 Base Station Controller
- 10.2.13 W-CDMA Base Station Controller Revenue
- 10.2.14 Mobile Core
- 10.2.15 3G Packet Core
- 10.2.16 WiMAX ASN & CSN
- 10.2.17 EPC
- 10.2.18 Home Location Register (HLR)
- 10.2.19 Mobile Switching Subsystem (MSS)
- 10.2.20 Small Cell RAN
- 10.2.21 Carrier WiFi
- 10.2.22 Distributed Antenna Systems (DAS)
- 10.2.23 Remote Radio Head (RRH)
- 10.2.24 Macrocell Backhaul
- 10.2.25 Small Cell Backhaul
- 10.3 Latin & Central America
 - 10.3.1 Macrocell RAN and Mobile Core
 - 10.3.2 Macrocell RAN
 - 10.3.3 Macrocell RAN Base Stations
 - 10.3.4 GSM Base Stations
 - 10.3.5 CDMA2000/EV-DO Base Stations
 - 10.3.6 W-CDMA/HSPA Base Stations
 - 10.3.7 LTE FDD Base Stations
 - 10.3.8 TD-LTE Base Stations
 - 10.3.9 WiMAX Base Stations
 - 10.3.10 Base Station Controller
 - 10.3.11 GSM Base Station Controller
 - 10.3.12 CDMA2000 Base Station Controller
 - 10.3.13 W-CDMA Base Station Controller Revenue
 - 10.3.14 Mobile Core
 - 10.3.15 3G Packet Core
 - 10.3.16 WiMAX ASN & CSN
 - 10.3.17 EPC
 - 10.3.18 Home Location Register (HLR)
 - 10.3.19 Mobile Switching Subsystem (MSS)
 - 10.3.20 Small Cell RAN
 - 10.3.21 Carrier WiFi
 - 10.3.22 Distributed Antenna Systems (DAS)
 - 10.3.23 Remote Radio Head (RRH)

10.3.24 Macrocell Backhaul

10.3.25 Small Cell Backhaul

10.4 Middle East & Africa

10.4.1 Macrocell RAN and Mobile Core

10.4.2 Macrocell RAN

10.4.3 Macrocell RAN Base Stations

10.4.4 GSM Base Stations

10.4.5 CDMA2000/EV-DO Base Stations

10.4.6 W-CDMA/HSPA Base Stations

10.4.7 LTE FDD Base Stations

10.4.8 TD-LTE Base Stations

10.4.9 WiMAX Base Stations

10.4.10 Base Station Controller

10.4.11 GSM Base Station Controller

10.4.12 CDMA2000 Base Station Controller

10.4.13 W-CDMA Base Station Controller Revenue

10.4.14 Mobile Core

10.4.15 3G Packet Core

10.4.16 WiMAX ASN & CSN

10.4.17 EPC

10.4.18 Home Location Register (HLR)

10.4.19 Mobile Switching Subsystem (MSS)

10.4.20 Small Cell RAN

10.4.21 Carrier WiFi

10.4.22 Distributed Antenna Systems (DAS)

10.4.23 Remote Radio Head (RRH)

10.4.24 Macrocell Backhaul

10.4.25 Small Cell Backhaul

10.5 North America

10.5.1 Macrocell RAN and Mobile Core

10.5.2 Macrocell RAN

10.5.3 Macrocell RAN Base Stations

10.5.4 GSM Base Stations

10.5.5 CDMA2000/EV-DO Base Stations

10.5.6 W-CDMA/HSPA Base Stations

10.5.7 LTE FDD Base Stations

10.5.8 TD-LTE Base Stations

10.5.9 WiMAX Base Stations

10.5.10 Base Station Controller

- 10.5.11 GSM Base Station Controller
- 10.5.12 CDMA2000 Base Station Controller
- 10.5.13 W-CDMA Base Station Controller Revenue
- 10.5.14 Mobile Core
- 10.5.15 3G Packet Core
- 10.5.16 WiMAX ASN & CSN
- 10.5.17 EPC
- 10.5.18 Home Location Register (HLR)
- 10.5.19 Mobile Switching Subsystem (MSS)
- 10.5.20 Small Cell RAN
- 10.5.21 Carrier WiFi
- 10.5.22 Distributed Antenna Systems (DAS)
- 10.5.23 Remote Radio Head (RRH)
- 10.5.24 Macrocell Backhaul
- 10.5.25 Small Cell Backhaul
- 10.6 Western Europe
 - 10.6.1 Macrocell RAN and Mobile Core
 - 10.6.2 Macrocell RAN
 - 10.6.3 Macrocell RAN Base Stations
 - 10.6.4 GSM Base Stations
 - 10.6.5 CDMA2000/EV-DO Base Stations
 - 10.6.6 W-CDMA/HSPA Base Stations
 - 10.6.7 LTE FDD Base Stations
 - 10.6.8 TD-LTE Base Stations
 - 10.6.9 WiMAX Base Stations
 - 10.6.10 Base Station Controller
 - 10.6.11 GSM Base Station Controller
 - 10.6.12 CDMA2000 Base Station Controller
 - 10.6.13 W-CDMA Base Station Controller Revenue
 - 10.6.14 Mobile Core
 - 10.6.15 3G Packet Core
 - 10.6.16 WiMAX ASN & CSN
 - 10.6.17 EPC
 - 10.6.18 Home Location Register (HLR)
 - 10.6.19 Mobile Switching Subsystem (MSS)
 - 10.6.20 Small Cell RAN
 - 10.6.21 Carrier WiFi
 - 10.6.22 Distributed Antenna Systems (DAS)
 - 10.6.23 Remote Radio Head (RRH)

10.6.24 Macrocell Backhaul

10.6.25 Small Cell Backhaul

11 CHAPTER 1.11: PROSPECTS OF THE 5G MARKET

11.1 5G Standardization and Research Initiatives

11.1.1 METIS

11.1.2 5GPP

11.1.3 Korea's 5G Forum

11.1.4 Japan's ARIB 2020 and Beyond AdHoc

11.1.5 China's IMT 2020

11.2 How much is being Invested in 5G R&D?

11.3 5G Requirements

11.4 Vertical Industries to Play a Key Role

11.5 SDN Capabilities Considered Inherent for 5G

11.6 Spectrum Aggregation is a Necessity

11.7 Authorized Shared Access (ASA)

11.8 Will 5G be a New Air Interface?

11.9 5G Demonstrations

11.9.1 Samsung

11.9.2 Nokia Networks

11.9.3 Huawei

11.10 Global Harmonization Prospects

12 CHAPTER 1.12: CONCLUSION & STRATEGIC RECOMMENDATIONS

12.1 Enterprise RAN Deployments Gain Traction

12.2 Is Mobile Network Virtualization a Threat to the Wireless Network Infrastructure Market?

12.3 Wireless Incumbents Could Face Cloud Rivals: Thanks to SDN & NFV

12.4 Spectrum: Driving Continued Acquisitions by Incumbent Operators

12.5 LTE-A: Upgrades for Capacity & Coverage Boosts

12.6 China's TDD Spectrum Allocation: Starting an Era of Large-Scale TD-LTE Deployments

12.7 Smart Cities: Wireless Infrastructure Vendors to Lead the Way

12.8 Standardization Driving RAN & WiFi Integration

12.9 Vendors Bringing LTE-Broadcast into Focus

12.10 Vendor Specific HetNet Offerings: Disrupting Traditional Network Architectures

12.11 Operators Will Strive for Agility

12.12 SWOT Analysis

12.13 Strategic Recommendations

12.13.1 Recommendations for Operators

12.13.2 Recommendations for Infrastructure Vendors

REPORT 2: THE HETNET BIBLE (SMALL CELLS, CARRIER WIFI, DAS & C-RAN): 2014 - 2020 - OPPORTUNITIES, CHALLENGES, STRATEGIES, & FORECASTS

1 CHAPTER 2.1: INTRODUCTION

1.1 Executive Summary

1.2 Topics Covered

1.3 Key Questions Answered

1.4 Key Findings

1.5 Methodology

1.6 Target Audience

1.7 Companies Mentioned

2 CHAPTER 2.2: AN OVERVIEW OF SMALL CELLS, CARRIER WIFI, DAS & C-RAN

2.1 An Evolving Heterogeneous Networking Ecosystem

2.1.1 The Growing Demand for Mobile Broadband

2.1.2 Is LTE the Answer to all Capacity Problems?

2.1.3 HetNets: An Evolution of Network Topology

2.2 Small Cells

2.2.1 What Are Small Cells?

2.2.2 Why Deploy Small Cells?

2.2.3 Small Cell Categories

2.2.3.1 Femtocells - Home (e)NodeBs

2.2.3.2 Picocells

2.2.3.3 Microcells

2.2.3.4 Metrocell: An Emerging Deployment Model

2.2.3.5 Will Metrocell Deployments Encompass Carrier Deployed Femtocells?

2.3 Carrier WiFi

2.3.1 Carrier WiFi Integration Approaches

2.3.2 Unmanaged 'Open Access'

2.3.3 Managed Offload

2.3.3.1 SIM-based Authentication and Mobile Data Offload

2.3.3.2 Fully Integrated WiFi Access

- 2.4 C-RAN (Cloud Radio Access Network)
 - 2.4.1 What is C-RAN?
 - 2.4.2 Architectural Benefits and Challenges
- 2.5 DAS (Distributed Antenna Systems)
 - 2.5.1 What is DAS?
 - 2.5.2 Passive DAS
 - 2.5.3 Hybrid DAS
 - 2.5.4 Active DAS
- 2.6 Alternative Options for Offloading Mobile Network Coverage and Capacity
 - 2.6.1 Macrocell Network and Spectrum Expansion
 - 2.6.2 Caching & Mobile CDNs
- 2.7 The Business Case: What is Driving the HetNet Market?
 - 2.7.1 Mobile Data Traffic: The Tsunami of 335 Exabytes
 - 2.7.2 Endorsement from the Carrier Community
 - 2.7.3 In-Building Coverage and Capacity
 - 2.7.4 Enterprise Demand: BYOD is Fuelling Growth
 - 2.7.5 Capacity Offload in Congested Localities
 - 2.7.6 CapEx Savings
 - 2.7.7 Non-Expandability of Macrocell Network
- 2.8 Challenges & Inhibitors to the HetNet Ecosystem
 - 2.8.1 Security Concerns
 - 2.8.2 Competing HetNet Solutions: DAS vs. Indoor Small Cells
 - 2.8.3 Interference with Macrocell Infrastructure & Spectrum Constraints
 - 2.8.4 Backhaul Requirements and Complexity
 - 2.8.5 C-RAN Fronthaul Challenges
 - 2.8.6 Commercial Immaturity
 - 2.8.7 Economic Constraints
 - 2.8.8 Device Side, Client and OS Issues
 - 2.8.9 Deployment Challenges
 - 2.8.10 Integrating Segregated WiFi Infrastructure into Mobile Networks
 - 2.8.11 Impact of Macrocell LTE Rollouts: Negative or Positive?

3 CHAPTER 2.3: INTEGRATION & OFFLOADING TECHNOLOGY

- 3.1 Integrating Small Cells into the Mobile Network
 - 3.1.1 Integration into 3G Networks
 - 3.1.1.1 Iuh based Integration: Residential/Enterprise Femtocells
 - 3.1.1.2 Iub: Picocells, Microcells and Now Even Femtocells
 - 3.1.2 S1: Integration into LTE Networks

- 3.1.2.1 eNB Small Cell Architecture
- 3.1.2.2 HeNB Small Cell Architecture
- 3.2 Integrating C-RAN into the Mobile Network
 - 3.2.1 CPRI (Common Public Radio Interface)
 - 3.2.2 OBSAI (Open Base Station Architecture Initiative)
 - 3.2.3 ORI (Open Radio Interface)
- 3.3 WiFi: The Evolution from an Ethernet Extension to Wireless Carrier Integration
- 3.4 Enabling Technologies for WiFi and Cellular RAN Interoperability
 - 3.4.1 ANDSF (Access Network Discovery and Selection Function)
 - 3.4.1.1 Enabling Seamless Mobility
 - 3.4.1.2 Commercial Availability of ANDSF Solutions
 - 3.4.2 Hotspot 2.0
 - 3.4.2.1 Discovery - 802.11u
 - 3.4.2.2 Encryption - 802.11i (WPA2)
 - 3.4.2.3 Authentication – 802.1x (EAP)
 - 3.4.2.4 OMA (Open Mobile Alliance) DM (Device Management)
 - 3.4.2.5 Passpoint WiFi Certification
 - 3.4.3 NGH (NextGen Hotspot) Program
 - 3.4.3.1 Working alongside Hotspot 2.0
 - 3.4.3.2 Enabling Seamless Mobile Network Connectivity
 - 3.4.4 I-WLAN (Interworking Wireless LAN)
 - 3.4.5 WISPr (Wireless Internet Service Provider Roaming)
 - 3.4.6 MSAP (Mobility Services Advertisement Protocol)
 - 3.4.7 WiFi Direct
- 3.5 Small Cell and Mobile Core Offloading Technologies
 - 3.5.1 LIPA (Local IP Access)
 - 3.5.1.1 Is LIPA Specifically for Small Cells?
 - 3.5.1.2 Use Case Example: Local Network Multimedia Access
 - 3.5.2 SIPTO (Selected IP Traffic Offload)
 - 3.5.2.1 Use Case Example: Core Network Offload
 - 3.5.2.2 The Downside: Is SIPTO Suitable for All Traffic Profiles?
 - 3.5.3 IFOM (IP Flow Mobility and Seamless Offload)
 - 3.5.3.1 Enabling Seamless Integration between WiFi and 3GPP RANs
- 3.6 WiFi and Cellular RAN Integration: Commercial Implementations to Address the HetNet Challenge
 - 3.6.1 WiFi Integration into Macrocell and Small Cell Base Station Nodes
 - 3.6.2 Policy Driven Control for Small Cell & WiFi
 - 3.6.2.1 Vendor Demonstrations: Dynamic Switching between WiFi and LTE
 - 3.6.3 Commercial Case Study: NGH SIM-based WiFi Access

4 CHAPTER 2.4: INDUSTRY ROADMAP AND VALUE CHAIN

4.1 HetNet Industry Roadmap: 2010 - 2020

4.1.1 2010 – 2012: Initial Rollouts: In-building Voice Converge & Nomadic Data Access

4.1.2 2013 – 2015: The 4G Expansion Era – A Shift from In-building Voice to Data Optimization

4.1.3 2016 – 2020: The HetNet Era - Continued Proliferation of HetNets

4.2 HetNet Value Chain

4.3 Embedded Technology Ecosystem

4.3.1 Chipset Developers

4.3.2 Embedded Component/Software Providers

4.4 HetNet RAN Ecosystem

4.4.1 'Pure-Play' and Specialist Small Cell OEMs

4.4.2 WiFi Access Point OEMs

4.4.3 Macrocell RAN OEMs

4.4.4 DAS & Repeater Solution Providers

4.4.5 C-RAN Solution Providers

4.4.6 Other Technology & Network Component Providers/Enablers

4.5 Mobile Backhaul Ecosystem

4.5.1 Backhaul & Fronthaul Solution Providers

4.6 Mobile Core Ecosystem

4.6.1 Core Network Solution Providers

4.7 Connectivity Ecosystem

4.7.1 2G, 3G & 4G Wireless Carriers

4.7.2 WiFi Connectivity Providers

4.7.3 SCaaS Providers

4.8 SON Ecosystem

4.8.1 SON Solution Providers

4.9 SDN & NFV Ecosystem

4.9.1 SDN & NFV Providers

4.10 Vendor Landscape: Consolidation & Acquisitions Lead the Way

4.10.1 Broadcom Acquires Percello – Q4'2010

4.10.2 Radisys Acquires Continuous Computing – Q4'2010

4.10.3 Alvarion Acquires Wavion – Q4'2011

4.10.4 Mindspeed Technologies Acquires picoChip – Q1'2012

4.10.5 Ericsson Acquires BelAir Networks – Q2'2012

4.10.6 Crown Castle Acquires NextG Networks – Q2'2012

4.10.7 Qualcomm Acquires DesignArt Networks – Q3'2012

- 4.10.8 Oracle Acquires Acme Packet – Q1'2013
- 4.10.9 Oracle Acquires Tekelec – Q1'2013
- 4.10.10 Cisco Acquires Ubiquisys – Q2'2013
- 4.10.11 Cobham Acquires Axell Wireless– Q2'2013
- 4.10.12 Bird Technologies Acquires DeltaNode – Q3'2013
- 4.10.13 Intel Acquires Mindspeed's Wireless Assets – Q4'2013
- 4.10.14 Intel Acquires LSI's Axxia Networking Business – Q3'2014

5 CHAPTER 2.5: HETNET DEPLOYMENT MODELS

5.1 Small Cell, DAS & C-RAN Deployment Models

5.1.1 Consumer (Indoor) Deployment Models

5.1.1.1 Home/Residential

5.1.1.2 Enterprise

5.1.2 Carrier Deployment Models

5.1.2.1 Indoor

5.1.2.2 Metro

5.1.2.3 Rural

5.1.3 SCaaS (Small Cells as a Service)

5.2 Carrier WiFi Deployment Models

5.2.1 Mobile Offload

5.2.2 SIM Based

5.2.3 Enterprise

5.2.4 Hotspot

5.2.5 Wholesale

5.2.6 Municipal WiFi

6 CHAPTER 2.6: VERTICAL MARKETS FOR HETNETS

6.1 Residential

6.2 Healthcare

6.3 Higher Education

6.4 Large Enterprises

6.5 SMBs

6.6 Retail

6.7 Construction

6.8 Public Sector

6.9 Public Safety and Defense

7 CHAPTER 2.7: SMALL CELL BACKHAUL

7.1 Small Cell Backhaul Technology

7.1.1 Ethernet over Copper

7.1.2 Ethernet over Fiber

7.1.3 DSL

7.1.4 NLOS (Non-Line of Site) Microwave

7.1.5 PTP (Point to Point) Microwave – 6-60 GHz

7.1.6 PTMP (Point to Multipoint) Microwave – 6-60 GHz

7.1.7 Millimeter Wave (E-band) – Licensed and Unlicensed

7.1.8 Satellite Based Backhaul

7.2 Requirements for Small Cell Backhaul

7.2.1 Form Factor & Environmental Hardening

7.2.2 Power Supply & Consumption

7.2.3 Installation & Provisioning

7.2.4 Integration of OAM and SON Capabilities

7.2.5 Deployment & Maintenance Cost

7.3 Key Issues

7.3.1 Backhaul Sharing: Can Small Cells and Macrocells Share Resources?

7.3.2 Coverage Challenges

7.3.3 Capacity/Peak Throughput Challenges

7.3.4 Will Millimeter Wave be the Preferred Outdoor Small Cell Backhaul Solution?

7.3.5 Is there a market for Satellite based Small Cell Backhaul

7.3.6 Assessing the Impact of the SCaaS Ecosystem

8 CHAPTER 2.8: STANDARDIZATION & REGULATORY INITIATIVES

8.1 Small Cell Forum

8.1.1 Mission

8.1.2 Scope of Work

8.1.3 Working Groups

8.1.3.1 Marketing and Promotions Group

8.1.3.2 Radio & Physical Layer Group

8.1.3.3 Network Group

8.1.3.4 Regulatory Group

8.1.3.5 Services Group

8.1.3.6 Interoperability Group

8.1.3.7 Special Interest Focus Groups: Backhaul, Deployment, LTE, Rural & 3GPP2

Standards

8.2 WBA (Wireless Broadband Alliance)

8.2.1 Mission

8.2.2 Scope of Work

8.2.3 Working Groups

8.2.3.1 Business Workgroup

8.2.3.2 Industry Engagement Workgroup

8.2.3.3 Roaming Workgroup

8.3 WiFi Alliance

8.3.1 Mission

8.3.2 Certification Programs

8.3.2.1 Core Certification

8.3.2.2 Miracast

8.3.2.3 TDLS (Tunneled Direct Link Setup)

8.3.2.4 Passpoint

8.3.2.5 WiFi Direct

8.3.2.6 WiFi Protected Setup

8.3.2.7 WMM (WiFi Multimedia)

8.3.2.8 WMM-Power Save

8.3.2.9 Voice-Personal: Voice over WiFi

8.3.2.10 Voice-Enterprise: Voice over WiFi

8.3.2.11 CWG-RF

8.3.2.12 WMM-Admission Control

8.3.2.13 IBSS with WiFi Protected Setup

8.4 HetNet Forum

8.4.1 Mission

8.4.2 Scope of Work

8.4.3 Governance & Membership

8.5 3GPP

8.5.1 Mission

8.5.2 Small Cell Standardization Activities

8.6 3GPP2

8.6.1 Mission

8.6.2 Small Cell Standardization Activities

8.7 Broadband Forum

8.7.1 Mission

8.7.2 Small Cell Standardization Activities

8.8 WiMAX Forum

8.8.1 Mission

8.8.2 Small Cell Standardization Activities

8.9 Prominent Collaborations

8.9.1 WBA and WiFi Alliance

8.9.2 Small Cell Forum and GSMA

8.9.3 WBA, GSMA and Small Cell Forum

8.9.3.1 Integrating on a Network Level

8.9.3.2 Setting the Stage for Advanced Traffic Management

9 CHAPTER 2.9: HETNET DEPLOYMENTS

9.1 SCaaS (Small Cells as a Service) Case Studies

9.1.1 BT

9.1.2 Cellcom

9.1.3 Colt Telecom

9.1.4 Cloudberry Mobile

9.1.5 ClearSky

9.1.6 Virgin Media

9.1.7 Ericsson & Phillips

9.1.8 Alcatel-Lucent & Towerstream

9.2 Carrier WiFi

9.2.1 AT&T Mobility

9.2.2 Comcast

9.2.3 Cox Communications

9.2.4 MetroPCS

9.2.5 Sprint

9.2.6 T-Mobile USA

9.2.7 Verizon Wireless

9.2.8 Free Mobile

9.2.9 BT

9.2.10 MegaFon

9.2.11 Orange (France Telecom)

9.2.12 Portugal Telecom

9.2.13 Telefónica Moviles (Spain)

9.2.14 T-Mobile Austria

9.2.15 Zain Saudi Arabia

9.2.16 China Mobile

9.2.17 KDDI

9.2.18 LG Uplus

9.2.19 NTT Broadband Platform

9.2.20 TIM Brasil

9.2.21 Other Carriers

9.3 Small Cell, DAS & C-RAN Deployments

9.3.1 AT&T Mobility

9.3.2 Beeline

9.3.3 Bouygues Telecom

9.3.4 China Mobile

9.3.5 China Unicom

9.3.6 Cosmote

9.3.7 EE (Everything Everywhere)

9.3.8 Free Mobile

9.3.9 KDDI

9.3.10 MegaFon

9.3.11 Moldtelecom

9.3.12 Mosaic Telecom

9.3.13 MTC

9.3.14 Movistar

9.3.15 Network Norway

9.3.16 NTT DoCoMo

9.3.17 O2 (Telefonica UK)

9.3.18 Optimus Portugal

9.3.19 Optus

9.3.20 Orange (Formerly France Telecom)

9.3.21 Orange Romania

9.3.22 SFR

9.3.23 SingTel

9.3.24 SK Telecom

9.3.25 SoftBank

9.3.26 Sprint

9.3.27 StarHub

9.3.28 TOT Thailand

9.3.29 Three UK

9.3.30 Verizon Wireless

9.3.31 Vodafone Australia

9.3.32 Vodafone Czech Republic

9.3.33 Vodafone Germany

9.3.34 Vodafone Greece

9.3.35 Vodafone Hungary

9.3.36 Vodafone Ireland

9.3.37 Vodafone Italy

- 9.3.38 Vodafone Netherlands
- 9.3.39 Vodafone New Zealand
- 9.3.40 Vodafone Portugal
- 9.3.41 Vodafone Qatar
- 9.3.42 Vodafone Romania
- 9.3.43 Vodafone Spain
- 9.3.44 Vodafone UK
- 9.3.45 Zain Bahrain
- 9.3.46 Other Commitments

9.4 Case Studies

- 9.4.1 Sprint/Softbank Acquisition: Assessing the Impact on the Small Cells Ecosystem
- 9.4.2 The Impact of LTE & Small Cells on Tier 2/3 CDMA Carriers
- 9.4.3 What is the TCO Impact of HetNet Deployments?

10 CHAPTER 2.10: PURE-PLAY SMALL CELL VENDORS

- 10.1 Accelleran
- 10.2 ADB
- 10.3 Airspan Networks
- 10.4 Alpha Networks
- 10.5 Arcadyan Technology Corporation
- 10.6 Artemis Networks
- 10.7 Anvaya Networks
- 10.8 Argela
- 10.9 ARItel
- 10.10 Askey Computer Corporation
- 10.11 Contela
- 10.12 CS Corporation
- 10.13 Dongwon T&I
- 10.14 Femtel (Suzhou Femtel Communications)
- 10.15 Free
- 10.16 GWT (Global Wireless Technologies)
- 10.17 HSL (Hay Systems Limited)
- 10.18 ip.access
- 10.19 Juni Global
- 10.20 Lemko
- 10.21 Minieum Networks
- 10.22 Nutaq/ NuRAN Wireless
- 10.23 Oceus Networks

- 10.24 Pace
- 10.25 PureWave Networks
- 10.26 Quanta Computer
- 10.27 Sagemcom
- 10.28 SK Telesys
- 10.29 SpiderCloud Wireless
- 10.30 Star Solutions
- 10.31 Technicolor
- 10.32 Tecom
- 10.33 TEKTELIC Communications
- 10.34 Telum
- 10.35 Qucell
- 10.36 Ubee Interactive
- 10.37 WNC (Wistron NeWeb Corporation)
- 10.38 Z-com (ZDC Wireless)

11 CHAPTER 2.11: DAS, RRH & REPEATER SOLUTION PROVIDERS

- 11.1 AceAxis
- 11.2 ADRF (Advanced RF Technologies)
- 11.3 Affarii Technologies
- 11.4 American Tower Corporation
- 11.5 Arqiva
- 11.6 Axell Wireless/Cobham
- 11.7 Axis Teknologies
- 11.8 Black Box Corporation
- 11.9 BTI Wireless
- 11.10 CCI (Communication Components Inc.)
- 11.11 CCI (Crown Castle International)
- 11.12 CCI Systems
- 11.13 CSI (Cellular Specialities, Inc.)/Westell Technologies
- 11.14 Comba Telecom Systems Holdings
- 11.15 CommScope
- 11.16 Corning MobileAccess
- 11.17 Dali Wireless
- 11.18 DeltaNode (Bird Technologies)
- 11.19 Ethertronics
- 11.20 ExteNet Systems
- 11.21 Foxcom

- 11.22 Galtronics
- 11.23 Goodman Networks
- 11.24 IDS Technology Solutions
- 11.25 JMA Wireless
- 11.26 KMW Communications
- 11.27 Kathrein-Werke KG
- 11.28 MER-CellIO Wireless Solutions
- 11.29 Microlab (Wireless Telecom Group)
- 11.30 Nexius
- 11.31 RF Window
- 11.32 RFS (Radio Frequency Systems)
- 11.33 Rosenberger
- 11.34 SOLiD (SOLiD Technologies)
- 11.35 Sumitomo Electric Industries
- 11.36 TE Connectivity
- 11.37 TESSCO Technologies
- 11.38 Wi-Ex
- 11.39 Wilson Electronics
- 11.40 Zinwave/McWane

12 CHAPTER 2.12: CARRIER WIFI FOCUSED VENDORS

- 12.1 4ipnet
- 12.2 ADTRAN
- 12.3 Aerohive
- 12.4 Alvarion (Wavion)
- 12.5 Aruba Networks
- 12.6 Browan Communications
- 12.7 CCI (Competitive Companies, Inc.)/WyTec International
- 12.8 CeedTec
- 12.9 D-Link Corporation
- 12.10 Edgewater Wireless Systems
- 12.11 EION Wireless
- 12.12 Extreme Networks
- 12.13 Firetide
- 12.14 Fortinet
- 12.15 Gemtek Technology
- 12.16 GoNet Systems
- 12.17 GrenTech (China GrenTech Corporation)

12.18 Handlink Technologies
12.19 Meru Networks
12.20 Motorola Solutions (Zebra Technologies)
12.21 NETGEAR
12.22 Nomadix
12.23 Option N.V.
12.24 Proxim Wireless
12.25 RFNet Technologies
12.26 Ro-Timak Technology
12.27 Ruckus Wireless
12.28 Senao Networks
12.29 SerComm
12.30 Shyam Telecom
12.31 TP-LINK
12.32 Tranzeo Wireless Technologies
12.33 Tropos Networks (ABB)
12.34 Ubiquiti Networks
12.35 ZyXEL

13 CHAPTER 2.13: C-RAN FOCUSED SOLUTION PROVIDERS

13.1 6WIND
13.2 ADLINK Technology
13.3 Airvana
13.4 AltioStar Networks
13.5 ASOCS
13.6 Axxcelera
13.7 Intel Corporation
13.8 MTI Mobile

14 CHAPTER 2.14: HETNET FOCUSED SON SOLUTION PROVIDERS

14.1 AirHop Communications
14.2 Amdocs
14.3 Astellia
14.4 Cellwize
14.5 Celtro
14.6 Eden Rock Communications
14.7 InfoVista

- 14.8 JDSU
- 14.9 Optulink
- 14.10 P.I. Works
- 14.11 RADCOM
- 14.12 Reverb Networks
- 14.13 TEOCO
- 14.14 Tulinx
- 14.15 WebRadar
- 14.16 Xceed Technologies

15 CHAPTER 2.15: MACROCELL RAN & MOBILE CORE INFRASTRUCTURE VENDORS

- 15.1 Alcatel-Lucent
- 15.2 Cisco
- 15.3 Datang Mobile
- 15.4 Ericsson
- 15.5 Ericsson-LG
- 15.6 Fujitsu
- 15.7 Huawei
- 15.8 Hitachi
- 15.9 HP
- 15.10 Juniper Networks
- 15.11 Mitsubishi
- 15.12 NEC
- 15.13 New Postcom Equipment
- 15.14 Nokia Networks
- 15.15 NTT DoCoMo
- 15.16 Samsung
- 15.17 ZTE

16 CHAPTER 2.16: CHIPSET, COMPONENT, SOFTWARE AND TECHNOLOGY VENDORS

- 16.1 Ablaze Wireless
- 16.2 Accuris Networks
- 16.3 ACS (Applied Communication Sciences)
- 16.4 Adax
- 16.5 ADI (Analog Devices Inc.)

- 16.6 Affirmed Networks
- 16.7 AKM (Asahi Kasei Microdevices)
- 16.8 Altera
- 16.9 Aptilo Networks
- 16.10 Aricent
- 16.11 AWTG (Advanced Wireless Technology Group)
- 16.12 Azcom Technology
- 16.13 BandwidthX
- 16.14 Birdstep Technology ASA
- 16.15 Blu Wireless Technology
- 16.16 Broadcom
- 16.17 BSG Wireless
- 16.18 Casa Systems
- 16.19 Cavium
- 16.20 Coherent Logix
- 16.21 Direct Beam
- 16.22 Freescale Semiconductor
- 16.23 Front Porch
- 16.24 GENBAND
- 16.25 Green Packet
- 16.26 iPosi
- 16.27 InterDigital
- 16.28 Kineto Wireless
- 16.29 Kumu Networks
- 16.30 Lattice Semiconductor
- 16.31 Lime Microsystems
- 16.32 Mavenir
- 16.33 Maxim Integrated
- 16.34 Microsemi Corporation
- 16.35 MIMOon
- 16.36 Nash Technologies
- 16.37 Netgem
- 16.38 Node-H
- 16.39 Nomor Research
- 16.40 Octasic
- 16.41 Oracle Corporation
- 16.42 Pletronics
- 16.43 PMC-Sierra
- 16.44 Polaris Networks

16.45 Public Wireless
16.46 Qualcomm
16.47 Quortus
16.48 Radisys
16.49 Rakon
16.50 Saguna Networks
16.51 SAI Technology
16.52 Stoke
16.53 Smith Micro Software
16.54 Syniverse Technologies
16.55 Tata Elxsi
16.56 TI (Texas Instruments)
16.57 U-blox
16.58 Vectron International
16.59 Vitesse Semiconductor
16.60 Xilinx

17 CHAPTER 2.17: TEST & MEASUREMENT SOLUTION PROVIDERS

17.1 Anite
17.2 Anritsu Corporation
17.3 EDX Wireless
17.4 ERCOM
17.5 EXFO
17.6 iBwave
17.7 Ixia
17.8 Keysight Technologies
17.9 VPIsystems
17.10 WeFi

18 CHAPTER 2.18: WIFI NETWORK PROVIDERS

18.1 AlwaysOn
18.2 Boingo Wireless
18.3 BSkyB (The Cloud)
18.4 Devicescape Software
18.5 Fon Wireless
18.6 iPass
18.7 Quadriga Worldwide

18.8 Towerstream Corporation

19 CHAPTER 2.19: BACKHAUL & FRONTHAUL SOLUTION PROVIDERS

19.1 3Roam

19.2 4RF

19.3 Accedian Networks

19.4 Actelis Networks

19.5 Actiontec

19.6 Actus Networks

19.7 ADVA Optical Networking

19.8 Advantech Wireless

19.9 ALAXALA Networks

19.10 Albis Technologies

19.11 ALCOMA

19.12 Allied Data Technologies

19.13 Allied Telesis

19.14 Arris

19.15 Athena Wireless Communications

19.16 Avanti Communications

19.17 Aviat Networks

19.18 AVM

19.19 Brocade

19.20 BLiNQ Networks

19.21 BluWan

19.22 BridgeWave Communications

19.23 BTI Systems

19.24 CableFree Solutions

19.25 Calix

19.26 Cambium Networks

19.27 Canoga Perkins

19.28 Carlson Wireless Technologies

19.29 CBNL (Cambridge Broadband Networks Ltd.)

19.30 CCS (Cambridge Communication Systems)

19.31 Ceragon

19.32 Cielo Networks

19.33 Ciena Corporation

19.34 Comtrend

19.35 Corecess

19.36 DASAN Networks
19.37 DragonWave
19.38 E-Band Communications
19.39 E-Blink
19.40 ECI Telecom
19.41 Elva-1 (Elva-Link)
19.42 Exalt Communications
19.43 FastBack Networks
19.44 Fiberhome Technologies
19.45 FibroLan
19.46 Genmix Technology
19.47 Gilat Satellite Networks
19.48 HFR
19.49 Huahuan
19.50 Hughes Network Systems
19.51 HXI
19.52 iDirect
19.53 Intracom Telecom
19.54 IPITEK
19.55 Iskratel
19.56 KEYMILE
19.57 LightPointe Communications
19.58 Loea Corporation
19.59 MAX4G
19.60 Microwave Networks
19.61 MIMOtech
19.62 MRV Communications
19.63 Nexcomm Systems
19.64 NexxComm Wireless
19.65 Omnitron Systems
19.66 OneAccess Networks
19.67 Overture Networks
19.68 Polewall
19.69 Positron
19.70 RACOM
19.71 RAD Data Communications
19.72 RADWIN
19.73 Redline Communications
19.74 SAF Tehnika

19.75 SIAE Microelectronics (SIAE Microelectronica)

19.76 Siklu

19.77 SkyFiber

19.78 SMC Networks

19.79 Solectek

19.80 Star Microwave

19.81 Sub10 Systems

19.82 Taqua

19.83 Tarana Wireless

19.84 Telco Systems

19.85 Tellabs

19.86 Tellion

19.87 Tellumat

19.88 Telrad Networks

19.89 Telsey

19.90 Tilgin

19.91 Trango Systems

19.92 Transmode

19.93 Ubiquoss

19.94 UTStarcom

19.95 Vubiq Networks

19.96 Wave1

19.97 Wavesight

19.98 Xavi Technologies

19.99 Yamaha

19.100 Zhone Technologies

20 CHAPTER 2.20: MARKET ANALYSIS AND FORECASTS

20.1 The Global Small Cell & Carrier WiFi Market: 2014 – 2020

20.1.1 Global Small Cell & Carrier WiFi Installed Base

20.1.1.1 Global Small Cell & Carrier WiFi Installed Base Compared

20.1.1.2 Small Cell & Carrier WiFi Installed Base by Region

20.1.2 Global Small Cell & Carrier WiFi Unit Shipments & Revenue

20.1.2.1 Global Small Cell & Carrier WiFi Unit Shipments & Revenue Compared

20.1.2.2 Small Cell & Carrier WiFi Unit Shipments & Revenue by Region

20.1.3 Global Small Cell & Carrier WiFi Data Service Revenue

20.1.3.1 Global Small Cell & Carrier WiFi Data Service Revenue Compared

20.1.3.2 Small Cell & Carrier WiFi Data Service Revenue by Region

20.2 The Global Small Cell Market: 2014 – 2020

20.2.1 Global Throughput of Small Cell Data Traffic

20.2.2 Global Small Cell Installed Base

20.2.3 Global Small Cell Installed Base by Cell Size (Femto, Pico, Micro)

20.2.3.1 Global Femtocell Installed Base

20.2.3.2 Global Picocell Installed Base

20.2.3.3 Global Microcell Installed Base

20.2.4 Global Small Cell Installed Base by Deployment Model (Home/Residential, Enterprise, Metro, Rural)

20.2.4.1 Home/Residential Small Cell Installed Base

20.2.4.2 Enterprise Small Cell Installed Base

20.2.4.3 Metro Small Cell Installed Base

20.2.4.4 Rural Small Cell Installed Base

20.2.5 Global Small Cell Installed Base by Air Interface Technology Generation (2G, 3G, 4G)

20.2.5.1 2G/3G (CDMA2000/GSM/W-CDMA) Small Cell Installed Base

20.2.5.2 4G (LTE/WiMAX) Small Cell Installed Base

20.2.6 Global Small Cell Installed Base by Air Interface Technology (GSM/W-CDMA/HSPA, CDMA2000/EV-DO, LTE FDD/TD-LTE, WiMAX)

20.2.6.1 GSM/W-CDMA/HSPA Small Cell Installed Base

20.2.6.2 CDMA2000/EV-DO Small Cell Installed Base

20.2.6.3 LTE FDD Small Cell Installed Base

20.2.6.4 TD-LTE Small Cell Installed Base

20.2.6.5 WiMAX Small Cell Installed Base

20.2.7 Small Cell Installed Base by Region

20.2.8 Global Small Cell Unit Shipments & Revenue

20.2.9 Global Small Cell Unit Shipments & Revenue by Cell Size (Femto, Pico, Micro)

20.2.9.1 Global Femtocell Unit Shipments & Revenue

20.2.9.2 Global Picocell Unit Shipments & Revenue

20.2.9.3 Global Microcell Unit Shipments & Revenue

20.2.10 Global Small Cell Unit Shipments & Revenue by Deployment Model (Home/Residential, Enterprise, Metro, Rural)

20.2.10.1 Home/Residential Small Cell Unit Shipments & Revenue

20.2.10.2 Enterprise Small Cell Unit Shipments & Revenue

20.2.10.3 Metro Small Cell Unit Shipments & Revenue

20.2.10.4 Rural Small Cell Unit Shipments & Revenue

20.2.11 Global Small Cell Unit Shipments & Revenue by Air Interface Technology Generation (2G, 3G, 4G)

20.2.11.1 2G/3G (CDMA2000/GSM/W-CDMA) Small Cell Unit Shipments & Revenue

- 20.2.11.2 4G (LTE/WiMAX) Small Cell Unit Shipments & Revenue
- 20.2.12 Global Small Cell Unit Shipments & Revenue by Air Interface Technology (GSM/W-CDMA/HSPA, CDMA2000/EV-DO, LTE FDD/TD-LTE, WiMAX)
 - 20.2.12.1 GSM/W-CDMA/HSPA Small Cell Unit Shipments & Revenue
 - 20.2.12.2 CDMA2000/EV-DO Small Cell Unit Shipments & Revenue
 - 20.2.12.3 LTE FDD Small Cell Unit Shipments & Revenue
 - 20.2.12.4 TD-LTE Small Cell Unit Shipments & Revenue
 - 20.2.12.5 WiMAX Small Cell Unit Shipments & Revenue
- 20.2.13 Small Cell Unit Shipments & Revenue by Region
- 20.2.14 Global Small Cell Mobile Data Service Revenue
- 20.2.15 Small Cell Mobile Data Service Revenue by Region
- 20.3 The Global Carrier WiFi Market: 2014 – 2020
 - 20.3.1 Global Throughput of Carrier WiFi Data Traffic
 - 20.3.2 Global Carrier WiFi Installed Base
 - 20.3.3 Global Carrier WiFi Installed Base by Equipment Type (Access Points, Access Point Controllers)
 - 20.3.3.1 Global Carrier WiFi Access Point Installed Base
 - 20.3.3.2 Global Carrier WiFi Access Point Controller Installed Base
 - 20.3.4 Global Carrier WiFi Access Point Installed Base by Integration Approach (Managed WiFi Offload, Unmanaged 'Open Access' WiFi)
 - 20.3.4.1 Managed WiFi Offload Access Point Installed Base
 - 20.3.4.2 Unmanaged 'Open Access' WiFi Access Point Installed Base
 - 20.3.5 Carrier WiFi Installed Base by Region
 - 20.3.6 Global Carrier WiFi Unit Shipments & Revenue
 - 20.3.7 Global Carrier WiFi Unit Shipments & Revenue by Equipment Type (Access Points, Access Point Controllers)
 - 20.3.7.1 Global Carrier WiFi Access Point Unit Shipments & Revenue
 - 20.3.7.2 Global Carrier WiFi Access Point Controller Unit Shipments & Revenue
 - 20.3.8 Global Carrier WiFi Access Point Unit Shipments & Revenue by Integration Approach (Managed WiFi Offload, Unmanaged 'Open Access' WiFi)
 - 20.3.8.1 Global Managed WiFi Offload Access Point Unit Shipments & Revenue
 - 20.3.8.2 Global Unmanaged 'Open Access' WiFi Access Point Unit Shipments & Revenue
 - 20.3.9 Carrier WiFi Unit Shipments & Revenue by Region
 - 20.3.10 Global Carrier WiFi Mobile Data Service Revenue
 - 20.3.11 Carrier WiFi Mobile Data Service Revenue by Region
- 20.4 The Global SCaaS Market: 2014 – 2020
 - 20.4.1 Global SCaaS Revenue
 - 20.4.2 SCaaS Revenue by Region

20.5 The Global Small Cell Backhaul Market: 2014 – 2020

20.5.1 Global Small Cell Backhaul Infrastructure Spending

20.5.2 Global Small Cell Backhaul Infrastructure Spending by Technology

20.5.2.1 Ethernet over Copper Small Cell Backhaul Infrastructure Spending

20.5.2.2 Ethernet over Fiber Small Cell Backhaul Infrastructure Spending

20.5.2.3 DSL Modems and DSLAMs Small Cell Backhaul Infrastructure Spending

20.5.2.4 NLOS Microwave (Below 6 GHz) Small Cell Backhaul Infrastructure

Spending

20.5.2.5 PTP Microwave (6-60GHz) Small Cell Backhaul Infrastructure Spending

20.5.2.6 PTMP Microwave (6-60GHz) Small Cell Backhaul Infrastructure Spending

20.5.2.7 Millimeter Wave (Unlicensed 60GHz) Small Cell Backhaul Infrastructure

Spending

20.5.2.8 Millimeter Wave (Licensed 71-76GHz, 81-86GHz) Small Cell Backhaul Infrastructure Spending

20.5.2.9 Satellite Based Small Cell Backhaul Infrastructure Spending

20.5.3 Small Cell Backhaul Infrastructure Spending by Region

20.6 The Global DAS Market: 2014 – 2020

20.6.1 Global Throughput of DAS Data Traffic

20.6.2 Global DAS Infrastructure Spending

20.6.3 DAS Infrastructure Spending by Region

20.7 The Global C-RAN Market: 2014 – 2020

20.7.1 Global C-RAN Infrastructure Spending

20.7.2 C-RAN Infrastructure Spending by Region

20.8 The Global SON Market: 2014 – 2020

20.8.1 Global SON Solution Spending

20.8.2 SON Solution Spending by Region

20.9 The Global Mobile Network Data Service Market: 2014 – 2020

20.9.1 Global Mobile Network Data Service Revenue

20.9.2 Global Mobile Network Data Service Revenue by Access Network Type (Macrocell, C-RAN, Small Cell, Carrier WiFi, DAS)

20.9.2.1 Macrocell & C-RAN based Mobile Network Data Service Revenue

20.9.2.2 Small Cell based Mobile Network Data Service Revenue

20.9.2.3 Carrier WiFi based Mobile Network Data Service Revenue

20.9.2.4 DAS based Mobile Network Data Service Revenue

20.9.3 Mobile Network Data Service Revenue by Region

20.10 North America Market: 2014 – 2020

20.10.1 Annual Throughput of Mobile Network Data Traffic in North America

20.10.2 Mobile Network Data Service Revenue in North America

20.10.3 Small Cell & Carrier WiFi Installed Base in North America

- 20.10.4 Small Cell & Carrier WiFi Unit Shipments & Revenue in North America
- 20.10.5 Small Cell & Carrier WiFi Data Service Revenue in North America
- 20.10.6 Small Cell Installed Base in North America
- 20.10.7 Small Cell Unit Shipments & Revenue in North America
- 20.10.8 Small Cell Mobile Data Service Revenue in North America
- 20.10.9 Carrier WiFi Installed Base in North America
- 20.10.10 Carrier WiFi Unit Shipments & Revenue in North America
- 20.10.11 Carrier WiFi Mobile Data Service Revenue in North America
- 20.10.12 SCaaS Revenue in North America
- 20.10.13 Small Cell Backhaul Infrastructure Spending in North America
- 20.10.14 DAS Infrastructure Spending in North America
- 20.10.15 C-RAN Infrastructure Spending in North America
- 20.10.16 SON Solution Spending in North America
- 20.11 Asia Pacific Market: 2014 – 2020
 - 20.11.1 Annual Throughput of Mobile Network Data Traffic in Asia Pacific
 - 20.11.2 Mobile Network Data Service Revenue in Asia Pacific
 - 20.11.3 Small Cell & Carrier WiFi Installed Base in Asia Pacific
 - 20.11.4 Small Cell & Carrier WiFi Unit Shipments & Revenue in Asia Pacific
 - 20.11.5 Small Cell & Carrier WiFi Data Service Revenue in Asia Pacific
 - 20.11.6 Small Cell Installed Base in Asia Pacific
 - 20.11.7 Small Cell Unit Shipments & Revenue in Asia Pacific
 - 20.11.8 Small Cell Mobile Data Service Revenue in Asia Pacific
 - 20.11.9 Carrier WiFi Installed Base in Asia Pacific
 - 20.11.10 Carrier WiFi Unit Shipments & Revenue in Asia Pacific
 - 20.11.11 Carrier WiFi Mobile Data Service Revenue in Asia Pacific
 - 20.11.12 SCaaS Revenue in Asia Pacific
 - 20.11.13 Small Cell Backhaul Infrastructure Spending in Asia Pacific
 - 20.11.14 DAS Infrastructure Spending in Asia Pacific
 - 20.11.15 C-RAN Infrastructure Spending in Asia Pacific
 - 20.11.16 SON Solution Spending in Asia Pacific
- 20.12 Western Europe Market: 2014 – 2020
 - 20.12.1 Annual Throughput of Mobile Network Data Traffic in Western Europe
 - 20.12.2 Mobile Network Data Service Revenue in Western Europe
 - 20.12.3 Small Cell & Carrier WiFi Installed Base in Western Europe
 - 20.12.4 Small Cell & Carrier WiFi Unit Shipments & Revenue in Western Europe
 - 20.12.5 Small Cell & Carrier WiFi Data Service Revenue in Western Europe
 - 20.12.6 Small Cell Installed Base in Western Europe
 - 20.12.7 Small Cell Unit Shipments & Revenue in Western Europe
 - 20.12.8 Small Cell Mobile Data Service Revenue in Western Europe

- 20.12.9 Carrier WiFi Installed Base in Western Europe
- 20.12.10 Carrier WiFi Unit Shipments & Revenue in Western Europe
- 20.12.11 Carrier WiFi Mobile Data Service Revenue in Western Europe
- 20.12.12 SCaaS Revenue in Western Europe
- 20.12.13 Small Cell Backhaul Infrastructure Spending in Western Europe
- 20.12.14 DAS Infrastructure Spending in Western Europe
- 20.12.15 C-RAN Infrastructure Spending in Western Europe
- 20.12.16 SON Solution Spending in Western Europe
- 20.13 Eastern Europe Market: 2014 – 2020
 - 20.13.1 Annual Throughput of Mobile Network Data Traffic in Eastern Europe
 - 20.13.2 Mobile Network Data Service Revenue in Eastern Europe
 - 20.13.3 Small Cell & Carrier WiFi Installed Base in Eastern Europe
 - 20.13.4 Small Cell & Carrier WiFi Unit Shipments & Revenue in Eastern Europe
 - 20.13.5 Small Cell & Carrier WiFi Data Service Revenue in Eastern Europe
 - 20.13.6 Small Cell Installed Base in Eastern Europe
 - 20.13.7 Small Cell Unit Shipments & Revenue in Eastern Europe
 - 20.13.8 Small Cell Mobile Data Service Revenue in Eastern Europe
 - 20.13.9 Carrier WiFi Installed Base in Eastern Europe
 - 20.13.10 Carrier WiFi Unit Shipments & Revenue in Eastern Europe
 - 20.13.11 Carrier WiFi Mobile Data Service Revenue in Eastern Europe
 - 20.13.12 SCaaS Revenue in Eastern Europe
 - 20.13.13 Small Cell Backhaul Infrastructure Spending in Eastern Europe
 - 20.13.14 DAS Infrastructure Spending in Eastern Europe
 - 20.13.15 C-RAN Infrastructure Spending in Eastern Europe
 - 20.13.16 SON Solution Spending in Eastern Europe
- 20.14 Middle East & Africa Market: 2014 – 2020
 - 20.14.1 Annual Throughput of Mobile Network Data Traffic in Middle East & Africa
 - 20.14.2 Mobile Network Data Service Revenue in Middle East & Africa
 - 20.14.3 Small Cell & Carrier WiFi Installed Base in Middle East & Africa
 - 20.14.4 Small Cell & Carrier WiFi Unit Shipments & Revenue in Middle East & Africa
 - 20.14.5 Small Cell & Carrier WiFi Data Service Revenue in Middle East & Africa
 - 20.14.6 Small Cell Installed Base in Middle East & Africa
 - 20.14.7 Small Cell Unit Shipments & Revenue in Middle East & Africa
 - 20.14.8 Small Cell Mobile Data Service Revenue in Middle East & Africa
 - 20.14.9 Carrier WiFi Installed Base in Middle East & Africa
 - 20.14.10 Carrier WiFi Unit Shipments & Revenue in Middle East & Africa
 - 20.14.11 Carrier WiFi Mobile Data Service Revenue in Middle East & Africa
 - 20.14.12 SCaaS Revenue in Middle East & Africa
 - 20.14.13 Small Cell Backhaul Infrastructure Spending in Middle East & Africa

- 20.14.14 DAS Infrastructure Spending in Middle East & Africa
- 20.14.15 C-RAN Infrastructure Spending in Middle East & Africa
- 20.14.16 SON Solution Spending in Middle East & Africa
- 20.15 Latin & Central America Market: 2014 – 2020
 - 20.15.1 Annual Throughput of Mobile Network Data Traffic in Latin & Central America
 - 20.15.2 Mobile Network Data Service Revenue in Latin & Central America
 - 20.15.3 Small Cell & Carrier WiFi Installed Base in Latin & Central America
 - 20.15.4 Small Cell & Carrier WiFi Unit Shipments & Revenue in Latin & Central America
 - 20.15.5 Small Cell & Carrier WiFi Data Service Revenue in Latin & Central America
 - 20.15.6 Small Cell Installed Base in Latin & Central America
 - 20.15.7 Small Cell Unit Shipments & Revenue in Latin & Central America
 - 20.15.8 Small Cell Mobile Data Service Revenue in Latin & Central America
 - 20.15.9 Carrier WiFi Installed Base in Latin & Central America
 - 20.15.10 Carrier WiFi Unit Shipments & Revenue in Latin & Central America
 - 20.15.11 Carrier WiFi Mobile Data Service Revenue in Latin & Central America
 - 20.15.12 SCaaS Revenue in Latin & Central America
 - 20.15.13 Small Cell Backhaul Infrastructure Spending in Latin & Central America
 - 20.15.14 DAS Infrastructure Spending in Latin & Central America
 - 20.15.15 C-RAN Infrastructure Spending in Latin & Central America
 - 20.15.16 SON Solution Spending in Latin & Central America

21 CHAPTER 2.21: CONCLUSION AND STRATEGIC RECOMMENDATIONS

- 21.1 The Formula for Success: Selecting the Right Combination of Small Cell Form Factors
- 21.2 SON Integration is Key
- 21.3 Mobile Fronthaul: Opportunities Beyond C-RAN
- 21.4 Accelerating the Transition to Military, Tactical & Public Safety LTE Networks
- 21.5 WiFi Integration: The Emerging Market for WiFi Enabled LTE Gateways
- 21.6 Prospects of Enterprise RAN Deployments
- 21.7 Network Visibility & OAM
- 21.8 Addressing Network Security: IPsec
- 21.9 Small Cells, WiFi C-RAN or DAS: Which Implementation will lead HetNet Deployments?
- 21.10 Rise of the Non-Macro Vendors
- 21.11 The Opportunity for Small Cells in Emerging Rural Markets
- 21.12 Strategic Recommendations
 - 21.12.1 Recommendations for HetNet Solution Vendors

21.12.2 Recommendations for Wireless Carriers

21.12.3 Recommendations for Macrocell Infrastructure Vendors

21.12.4 Recommendations for Backhaul & Fronthaul Solution Providers

List Of Figures

LIST OF FIGURES

Figure 1.1: Subsegments of the Wireless Network Infrastructure Market

Figure 1.2: Global GSM Networks: 1991 - 2014

Figure 1.3: Global GSM Subscriptions: 2010 – 2020 (Millions)

Figure 1.4: Global W-CDMA & HSPA Subscriptions: 2010 – 2020 (Millions)

Figure 1.5: Global W-CDMA & HSPA Subscriptions (%): 2014

Figure 1.6: Global LTE Commercial Network Launches: 2009 - 2014

Figure 1.7: Macrocell RAN Component Segmentation by Technology

Figure 1.8: HetNet RAN Component Segmentation by Technology

Figure 1.9: Global Voice over LTE (VoLTE) User Forecast: 2013 – 2020 (Millions)

Figure 1.10: Mobile Backhaul Segmentation by Technology

Figure 1.11: Global Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.12: LTE Penetration by Region: 2010 – 2020 (%)

Figure 1.13: LTE Penetration in Asia Pacific: 2010 – 2020 (%)

Figure 1.14: LTE Penetration in Eastern Europe: 2010 – 2020 (%)

Figure 1.15: LTE Penetration in Latin & Central America: 2010 – 2020 (%)

Figure 1.16: LTE Penetration in Middle East & Africa: 2010 – 2020 (%)

Figure 1.17: LTE Penetration in North America: 2010 – 2020 (%)

Figure 1.18: LTE Penetration in Western Europe: 2010 – 2020 (%)

Figure 1.19: Global Smartphone & Tablet Shipments: 2010 – 2020 (Millions of Units)

Figure 1.20: Global Smartphone vs. Feature & Basic Phone Shipments: 2010 – 2020 (Millions of Units)

Figure 1.21: Global Mobile Broadband & Voice Service Revenue Compared: 2010 – 2020 (\$ Billion)

Figure 1.22: Annual Global Throughput of Mobile Network Data Traffic by Region: 2010 – 2020 (Exabytes)

Figure 1.23: Annual Global Throughput of Mobile Network Data Traffic by Access Network Type: 2010 – 2020 (Exabytes)

Figure 1.24: Private Public Safety LTE Infrastructure Spending: 2010 – 2020 (\$ Billion)

Figure 1.25: Average Annual Traffic & Revenue Growth Compared for a Tier 1 Operator: 2010 – 2014 (%)

Figure 1.26: TCO Comparison for 2G, 3G, LTE and HetNet Deployments (\$ per GB)

Figure 1.27: Strategic Options for Operators

Figure 1.28: Global Mobile Network CapEx: 2010 – 2020 (\$ Billion)

Figure 1.29: Mobile Network CapEx by Region: 2010 – 2020 (\$ Billion)

Figure 1.30: Mobile Network CapEx for Top 10 Operators (\$ Billion)

Figure 1.31: China Mobile CapEx Commitments (\$ Billion)

Figure 1.32: China Unicom CapEx Commitments (\$ Billion)

Figure 1.33: AT&T Mobility CapEx Commitments (\$ Billion)

Figure 1.34: Verizon Wireless CapEx Commitments (\$ Billion)

Figure 1.35: NTT DoCoMo CapEx Commitments (\$ Billion)

Figure 1.36: SoftBank CapEx Commitments (\$ Billion)

Figure 1.37: Sprint CapEx Commitments (\$ Billion)

Figure 1.38: KDDI CapEx Commitments (\$ Billion)

Figure 1.39: T-Mobile USA CapEx Commitments (\$ Billion)

Figure 1.40: SK Telecom CapEx Commitments (\$ Billion)

Figure 1.41: Asia Pacific Mobile Network CapEx: 2010 – 2020 (\$ Billion)

Figure 1.42: Eastern Europe Mobile Network CapEx: 2010 – 2020 (\$ Billion)

Figure 1.43: Latin & Central America Mobile Network CapEx: 2010 – 2020 (\$ Billion)

Figure 1.44: Middle East & Africa Mobile Network CapEx: 2010 – 2020 (\$ Billion)

Figure 1.45: North America Mobile Network CapEx: 2010 – 2020 (\$ Billion)

Figure 1.46: Western Europe Mobile Network CapEx: 2010 – 2020 (\$ Billion)

Figure 1.47: Global Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.48: Global Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)

Figure 1.49: Global Mobile Network Subscriptions by Technology: 2010 – 2020 (Millions)

Figure 1.50: Global Mobile Network Service Revenue by Technology: 2010 – 2020 (\$ Billion)

Figure 1.51: GSM Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.52: GSM Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)

Figure 1.53: iDEN Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.54: iDEN Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)

Figure 1.55: CDMA Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.56: CDMA Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)

Figure 1.57: W-CDMA/HSPA Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.58: W-CDMA/HSPA Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)

Figure 1.59: TD-SCDMA Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.60: TD-SCDMA Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)

Figure 1.61: FDD LTE Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.62: FDD LTE Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)

Figure 1.63: TD-LTE Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.64: TD-LTE Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)

Figure 1.65: WiMAX Mobile Network Subscriptions: 2010 – 2020 (Millions)

Figure 1.66: WiMAX Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)

Figure 1.67: Mobile Network Subscriptions by Region: 2010 – 2020 (Millions)

- Figure 1.68: Mobile Network Service Revenue by Region: 2010 – 2020 (\$ Billion)
- Figure 1.69: Mobile Network Subscriptions by Service Type: 2010 – 2020 (Millions)
- Figure 1.70: Mobile Network Voice Service Revenue: 2010 – 2020 (Millions)
- Figure 1.71: Mobile Network SMS/MMS Service Revenue: 2010 – 2020 (Millions)
- Figure 1.72: Mobile Network Broadband Service Revenue: 2010 – 2020 (Millions)
- Figure 1.73: Asia Pacific Mobile Network Subscriptions: 2010 – 2020 (Millions)
- Figure 1.74: Asia Pacific Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)
- Figure 1.75: Eastern Europe Mobile Network Subscriptions: 2010 – 2020 (Millions)
- Figure 1.76: Eastern Europe Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)
- Figure 1.77: Latin & Central America Mobile Network Subscriptions: 2010 – 2020 (Millions)
- Figure 1.78: Latin & Central America Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)
- Figure 1.79: Middle East & Africa Mobile Network Subscriptions: 2010 – 2020 (Millions)
- Figure 1.80: Middle East & Africa Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)
- Figure 1.81: North America Mobile Network Subscriptions: 2010 – 2020 (Millions)
- Figure 1.82: North America Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)
- Figure 1.83: Western Europe Mobile Network Subscriptions: 2010 – 2020 (Millions)
- Figure 1.84: Western Europe Mobile Network Service Revenue: 2010 – 2020 (\$ Billion)
- Figure 1.85: The Wireless Network Infrastructure Industry Roadmap: 2014 - 2020
- Figure 1.86: The Wireless Network Infrastructure Value Chain
- Figure 1.87: Embedded Technology Ecosystem Players
- Figure 1.88: Macrocell RAN Ecosystem Players
- Figure 1.89: Specialist Small Cell RAN Ecosystem Players
- Figure 1.90: Carrier WiFi Ecosystem Players
- Figure 1.91: DAS & Repeater Ecosystem Players
- Figure 1.92: C-RAN Ecosystem Players
- Figure 1.93: Mobile Backhaul Ecosystem Players
- Figure 1.94: Mobile Core Ecosystem Players
- Figure 1.95: List of LTE Trials & Deployments
- Figure 1.96: SON Ecosystem Players
- Figure 1.97: SDN & NFV Ecosystem Players
- Figure 1.98: Macrocell RAN Infrastructure Vendor Share: 2013 (%)
- Figure 1.99: Mobile Core Infrastructure Vendor Share: 2013 (%)
- Figure 1.100: LTE Infrastructure Vendor Share: 2013 (%)
- Figure 1.101: WiMAX Infrastructure Vendor Share: 2013 (%)
- Figure 1.102: 2G & 3G Infrastructure Vendor Share: 2013 (%)
- Figure 1.103: Small Cell RAN Infrastructure Vendor Share: 2013 (%)

- Figure 1.104: Carrier WiFi Infrastructure Vendor Share: 2013 (%)
- Figure 1.105: Mobile Backhaul Infrastructure Vendor Share: 2013 (%)
- Figure 1.106: Global Wireless Network Infrastructure Revenue by Submarket: 2010 – 2020 (\$ Million)
- Figure 1.107: Global Wireless Network Infrastructure Market Share by Submarket: 2014 (%)
- Figure 1.108: Global Wireless Network Infrastructure Market Share by Submarket: 2020 (%)
- Figure 1.109: Global Macrocell RAN & Mobile Core Revenue: 2010 – 2020 (\$ Million)
- Figure 1.110: Global 2G/3G vs. 4G Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)
- Figure 1.111: Macrocell RAN & Mobile Core Revenue by Region: 2010 – 2020 (\$ Million)
- Figure 1.112: Global Macrocell RAN Revenue: 2010 – 2020 (\$ Million)
- Figure 1.113: Global Macrocell RAN Base Station Shipments: 2010 – 2020
- Figure 1.114: Global Macrocell RAN Revenue by Infrastructure Component: 2010 - 2020 (\$ Million)
- Figure 1.115: Macrocell RAN Revenue by Region: 2010 - 2020 (\$ Million)
- Figure 1.116: Global Macrocell RAN Revenue by Technology: 2010 - 2020 (\$ Million)
- Figure 1.117: Macrocell RAN Base Station Shipments by Region: 2010 - 2020
- Figure 1.118: Macrocell RAN Base Station Shipment Revenue by Region: 2010 - 2020 (\$ Million)
- Figure 1.119: Global Macrocell RAN Base Station Shipments by Technology: 2010 - 2020
- Figure 1.120: Global Macrocell RAN Base Station Shipment Revenue by Technology: 2010 - 2020 (\$ Million)
- Figure 1.121: GSM Macrocell Base Station Shipments by Region: 2010 - 2020
- Figure 1.122: GSM Macrocell RAN Base Station Shipment Revenue by Region: 2010 - 2020 (\$ Million)
- Figure 1.123: CDMA2000/EV-DO Macrocell Base Station Shipments by Region: 2010 - 2020
- Figure 1.124: CDMA2000/EV-DO Macrocell RAN Base Station Shipment Revenue by Region: 2010 - 2020 (\$ Million)
- Figure 1.125: TD-SCDMA Macrocell Base Station Shipments by Region: 2010 - 2020
- Figure 1.126: TD-SCDMA Macrocell RAN Base Station Shipment Revenue by Region: 2010 - 2020 (\$ Million)
- Figure 1.127: W-CDMA/HSPA Macrocell Base Station Shipments by Region: 2010 - 2020
- Figure 1.128: W-CDMA/HSPA Macrocell RAN Base Station Shipment Revenue by

Region: 2010 - 2020 (\$ Million)

Figure 1.129: LTE FDD Macrocell Base Station Shipments by Region: 2010 - 2020

Figure 1.130: LTE FDD Macrocell RAN Base Station Shipment Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.131: TD-LTE Macrocell Base Station Shipments by Region: 2010 - 2020

Figure 1.132: TD-LTE Macrocell RAN Base Station Shipment Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.133: WiMAX Macrocell Base Station Shipments by Region: 2010 - 2020

Figure 1.134: WiMAX Macrocell RAN Base Station Shipment Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.135: Macrocell Base Station Controller Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.136: Global Macrocell Base Station Controller Revenue by Technology: 2010 - 2020 (\$ Million)

Figure 1.137: GSM Base Station Controller Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.138: CDMA2000 Base Station Controller Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.139: TD-SCDMA Base Station Controller Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.140: W-CDMA Base Station Controller Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.141: Global Mobile Core Revenue: 2010 – 2020 (\$ Million)

Figure 1.142: Mobile Core Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.143: Global Mobile Core Revenue by Technology: 2010 - 2020 (\$ Million)

Figure 1.144: Global 3G Packet Core Revenue by Submarket: 2010 - 2020 (\$ Million)

Figure 1.145: 3G Packet Core Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.146: Global WiMAX ASN & CSN Revenue by Submarket: 2010 - 2020 (\$ Million)

Figure 1.147: WiMAX ASN & CSN Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.148: EPC Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.149: Global Home Location Register (HLR) Revenue: 2010 – 2020 (\$ Million)

Figure 1.150: Home Location Register (HLR) Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.151: Global Mobile Switching Subsystem (MSS) Revenue: 2010 – 2020 (\$ Million)

Figure 1.152: Mobile Switching Subsystem Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.153: Global Mobile Switching Subsystem Revenue by Submarket: 2010 - 2020 (\$ Million)

Figure 1.154: Global Mobile Switching Center Revenue: 2010 - 2020 (\$ Million)

- Figure 1.155: Global Mobile Soft Switch Revenue: 2010 - 2020 (\$ Million)
- Figure 1.156: Global Small Cell Unit Shipment Revenue: 2010 – 2020 (\$ Million)
- Figure 1.157: Global Small Cell Unit Shipments: 2010 – 2020 (Thousands of Units)
- Figure 1.158: Small Cell Unit Shipments by Region: 2010 - 2020 (Thousands of Units)
- Figure 1.159: Small Cell Unit Shipment Revenue by Region: 2010 - 2020 (\$ Million)
- Figure 1.160: Global Small Cell Unit Shipments by Air Interface Technology: 2010 - 2020 (Thousands of Units)
- Figure 1.161: Global Small Cell Unit Shipment Revenue by Air Interface Technology: 2010 - 2020 (\$ Million)
- Figure 1.162: Global GSM/W-CDMA/HSPA Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 1.163: Global GSM/W-CDMA/HSPA Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 1.164: Global CDMA2000/EV-DO Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 1.165: Global CDMA2000/EV-DO Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 1.166: Global LTE FDD Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 1.167: Global LTE FDD Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 1.168: Global TD-LTE Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 1.169: Global TD-LTE Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 1.170: Global WiMAX Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 1.171: Global WiMAX Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 1.172: Global Small Cell Unit Shipments by Cell Size: 2010 - 2020 (Thousands of Units)
- Figure 1.173: Global Small Cell Unit Shipment Revenue by Cell Size: 2010 - 2020 (\$ Million)
- Figure 1.174: Global Microcell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 1.175: Global Microcell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 1.176: Global Picocell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 1.177: Global Picocell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 1.178: Global Femtocell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 1.179: Global Femtocell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 1.180: Global Carrier WiFi Unit Shipment Revenue: 2010 – 2020 (\$ Million)
- Figure 1.181: Global Carrier WiFi Unit Shipments: 2010 – 2020 (Thousands of Units)

Figure 1.182: Carrier WiFi Unit Shipments by Region: 2010 - 2020 (Thousands of Units)

Figure 1.183: Carrier WiFi Unit Shipment Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.184: Global Carrier WiFi Unit Shipments by Equipment Type: 2010 - 2020 (Thousands of Units)

Figure 1.185: Global Carrier WiFi Unit Shipment Revenue by Equipment Type: 2010 - 2020 (\$ Million)

Figure 1.186: Global Carrier WiFi Access Point Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.187: Global Carrier WiFi Access Point Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.188: Global Carrier WiFi Access Point Controller Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.189: Global Carrier WiFi Access Point Controller Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.190: Global Carrier WiFi Access Point Unit Shipments by Integration Approach: 2010 - 2020 (Thousands of Units)

Figure 1.191: Global Carrier WiFi Access Point Unit Shipment Revenue by Integration Approach: 2010 - 2020 (\$ Million)

Figure 1.192: Global Managed WiFi Offload Access Point Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.193: Global Managed WiFi Offload Access Point Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.194: Global Unmanaged 'Open Access' WiFi Access Point Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.195: Global Unmanaged 'Open Access' WiFi Access Point Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.196: Global Distributed Antenna Systems (DAS) Revenue: 2010 – 2020 (\$ Million)

Figure 1.197: Distributed Antenna Systems (DAS) Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.198: Global Remote Radio Head (RRH) Unit Shipment Revenue: 2010 – 2020 (\$ Million)

Figure 1.199: Global Remote Radio Head (RRH) Unit Shipments: 2010 – 2020 (Thousands of Units)

Figure 1.200: Remote Radio Head (RRH) Unit Shipments by Region: 2010 - 2020 (Thousands of Units)

Figure 1.201: Remote Radio Head (RRH) Unit Shipment Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.202: Global Macrocell Backhaul Revenue: 2010 – 2020 (\$ Million)

Figure 1.203: Macrocell Backhaul Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.204: Global Macrocell Backhaul Revenue by Technology: 2010 - 2020 (\$ Million)

Figure 1.205: Global ATM Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.206: Global Coaxial Cable Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.207: Global DSL Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.208: Global Ethernet over Copper Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.209: Global Ethernet over Fiber Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.210: Global Microwave Radio Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.211: Global PDH Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.212: Global PON Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.213: Global Satellite Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.214: Global SONET, SDH & WDM Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.215: Global WiMAX Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.216: Global Small Cell Backhaul Revenue: 2010 – 2020 (\$ Million)

Figure 1.217: Small Cell Backhaul Revenue by Region: 2010 - 2020 (\$ Million)

Figure 1.218: Global Small Cell Backhaul Revenue by Technology: 2010 - 2020 (\$ Million)

Figure 1.219: Global Ethernet over Copper Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.220: Global Ethernet over Fiber Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.221: Global DSL Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.222: Global NLOS Microwave (Below 6 GHz) Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.223: Global PTP Microwave (6-60 GHz) Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.224: Global PTMP Microwave (6-60 GHz) Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.225: Global Millimeter Wave (unlicensed 60 GHz) Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.226: Global Millimeter Wave (licensed 71-76. 81-86 GHz) Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.227: Global Satellite Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.228: Asia Pacific Macrocell RAN & Mobile Core Revenue: 2010 – 2020 (\$ Million)

Figure 1.229: Asia Pacific 2G/3G vs. 4G Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.230: Asia Pacific Macrocell RAN Revenue: 2010 - 2020 (\$ Million)

Figure 1.231: Asia Pacific Macrocell RAN Base Station Shipments: 2010 - 2020

Figure 1.232: Asia Pacific Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.233: Asia Pacific GSM Macrocell Base Station Shipments: 2010 - 2020

Figure 1.234: Asia Pacific GSM Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.235: Asia Pacific CDMA2000/EV-DO Macrocell Base Station Shipments: 2010 - 2020

Figure 1.236: Asia Pacific CDMA2000/EV-DO Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.237: Asia Pacific TD-SCDMA Macrocell Base Station Shipments: 2010 - 2020

Figure 1.238: Asia Pacific TD-SCDMA Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.239: Asia Pacific W-CDMA/HSPA Macrocell Base Station Shipments: 2010 - 2020

Figure 1.240: Asia Pacific W-CDMA/HSPA Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.241: Asia Pacific LTE FDD Macrocell Base Station Shipments: 2010 - 2020

Figure 1.242: Asia Pacific LTE FDD Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.243: Asia Pacific TD-LTE Macrocell Base Station Shipments: 2010 - 2020

Figure 1.244: Asia Pacific TD-LTE Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.245: Asia Pacific WiMAX Macrocell Base Station Shipments: 2010 - 2020

Figure 1.246: Asia Pacific WiMAX Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.247: Asia Pacific Macrocell Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.248: Asia Pacific GSM Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.249: Asia Pacific CDMA2000 Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.250: Asia Pacific TD-SCDMA Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.251: Asia Pacific W-CDMA Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.252: Asia Pacific Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.253: Asia Pacific 3G Packet Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.254: Asia Pacific WiMAX ASN & CSN Revenue: 2010 - 2020 (\$ Million)

Figure 1.255: Asia Pacific EPC Revenue: 2010 - 2020 (\$ Million)

Figure 1.256: Asia Pacific Home Location Register (HLR) Revenue: 2010 - 2020 (\$ Million)

Figure 1.257: Asia Pacific Mobile Switching Subsystem Revenue: 2010 - 2020 (\$ Million)

Figure 1.258: Asia Pacific Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.259: Asia Pacific Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.260: Asia Pacific Carrier WiFi Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.261: Asia Pacific Carrier WiFi Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.262: Asia Pacific Distributed Antenna Systems (DAS) Revenue: 2010 - 2020 (\$ Million)

Figure 1.263: Asia Pacific Remote Radio Head (RRH) Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.264: Asia Pacific Remote Radio Head (RRH) Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.265: Asia Pacific Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.266: Asia Pacific Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.267: Eastern Europe Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.268: Eastern Europe 2G/3G vs. 4G Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.269: Eastern Europe Macrocell RAN Revenue: 2010 - 2020 (\$ Million)

Figure 1.270: Eastern Europe Macrocell RAN Base Station Shipments: 2010 - 2020

Figure 1.271: Eastern Europe Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.272: Eastern Europe GSM Macrocell Base Station Shipments: 2010 - 2020

Figure 1.273: Eastern Europe GSM Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.274: Eastern Europe CDMA2000/EV-DO Macrocell Base Station Shipments: 2010 - 2020

Figure 1.275: Eastern Europe CDMA2000/EV-DO Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.276: Eastern Europe W-CDMA/HSPA Macrocell Base Station Shipments: 2010

- 2020

Figure 1.277: Eastern Europe W-CDMA/HSPA Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.278: Eastern Europe LTE FDD Macrocell Base Station Shipments: 2010 - 2020

Figure 1.279: Eastern Europe LTE FDD Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.280: Eastern Europe TD-LTE Macrocell Base Station Shipments: 2010 - 2020

Figure 1.281: Eastern Europe TD-LTE Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.282: Eastern Europe WiMAX Macrocell Base Station Shipments: 2010 - 2020

Figure 1.283: Eastern Europe WiMAX Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.284: Eastern Europe Macrocell Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.285: Eastern Europe GSM Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.286: Eastern Europe CDMA2000 Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.287: Eastern Europe W-CDMA Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.288: Eastern Europe Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.289: Eastern Europe 3G Packet Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.290: Eastern Europe WiMAX ASN & CSN Revenue: 2010 - 2020 (\$ Million)

Figure 1.291: Eastern Europe EPC Revenue: 2010 - 2020 (\$ Million)

Figure 1.292: Eastern Europe Home Location Register (HLR) Revenue: 2010 - 2020 (\$ Million)

Figure 1.293: Eastern Europe Mobile Switching Subsystem Revenue: 2010 - 2020 (\$ Million)

Figure 1.294: Eastern Europe Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.295: Eastern Europe Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.296: Eastern Europe Carrier WiFi Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.297: Eastern Europe Carrier WiFi Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.298: Eastern Europe Distributed Antenna Systems (DAS) Revenue: 2010 - 2020 (\$ Million)

Figure 1.299: Eastern Europe Remote Radio Head (RRH) Unit Shipments: 2010 - 2020

(Thousands of Units)

Figure 1.300: Eastern Europe Remote Radio Head (RRH) Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.301: Eastern Europe Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.302: Eastern Europe Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.303: Latin & Central America Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.304: Latin & Central America 2G/3G vs. 4G Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.305: Latin & Central America Macrocell RAN Revenue: 2010 - 2020 (\$ Million)

Figure 1.306: Latin & Central America Macrocell RAN Base Station Shipments: 2010 - 2020

Figure 1.307: Latin & Central America Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.308: Latin & Central America GSM Macrocell Base Station Shipments: 2010 - 2020

Figure 1.309: Latin & Central America GSM Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.310: Latin & Central America CDMA2000/EV-DO Macrocell Base Station Shipments: 2010 - 2020

Figure 1.311: Latin & Central America CDMA2000/EV-DO Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.312: Latin & Central America W-CDMA/HSPA Macrocell Base Station Shipments: 2010 - 2020

Figure 1.313: Latin & Central America W-CDMA/HSPA Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.314: Latin & Central America LTE FDD Macrocell Base Station Shipments: 2010 - 2020

Figure 1.315: Latin & Central America LTE FDD Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.316: Latin & Central America TD-LTE Macrocell Base Station Shipments: 2010 - 2020

Figure 1.317: Latin & Central America TD-LTE Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.318: Latin & Central America WiMAX Macrocell Base Station Shipments: 2010 - 2020

Figure 1.319: Latin & Central America WiMAX Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.320: Latin & Central America Macrocell Base Station Controller Revenue: 2010

- 2020 (\$ Million)

Figure 1.321: Latin & Central America GSM Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.322: Latin & Central America CDMA2000 Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.323: Latin & Central America W-CDMA Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.324: Latin & Central America Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.325: Latin & Central America 3G Packet Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.326: Latin & Central America WiMAX ASN & CSN Revenue: 2010 - 2020 (\$ Million)

Figure 1.327: Latin & Central America EPC Revenue: 2010 - 2020 (\$ Million)

Figure 1.328: Latin & Central America Home Location Register (HLR) Revenue: 2010 - 2020 (\$ Million)

Figure 1.329: Latin & Central America Mobile Switching Subsystem Revenue: 2010 - 2020 (\$ Million)

Figure 1.330: Latin & Central America Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.331: Latin & Central America Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.332: Latin & Central America Carrier WiFi Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.333: Latin & Central America Carrier WiFi Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.334: Latin & Central America Distributed Antenna Systems (DAS) Revenue: 2010 - 2020 (\$ Million)

Figure 1.335: Latin & Central America Remote Radio Head (RRH) Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.336: Latin & Central America Remote Radio Head (RRH) Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.337: Latin & Central America Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.338: Latin & Central America Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.339: Middle East & Africa Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.340: Middle East & Africa 2G/3G vs. 4G Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.341: Middle East & Africa Macrocell RAN Revenue: 2010 - 2020 (\$ Million)

Figure 1.342: Middle East & Africa Macrocell RAN Base Station Shipments: 2010 - 2020

Figure 1.343: Middle East & Africa Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.344: Middle East & Africa GSM Macrocell Base Station Shipments: 2010 - 2020

Figure 1.345: Middle East & Africa GSM Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.346: Middle East & Africa CDMA2000/EV-DO Macrocell Base Station Shipments: 2010 - 2020

Figure 1.347: Middle East & Africa CDMA2000/EV-DO Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.348: Middle East & Africa W-CDMA/HSPA Macrocell Base Station Shipments: 2010 - 2020

Figure 1.349: Middle East & Africa W-CDMA/HSPA Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.350: Middle East & Africa LTE FDD Macrocell Base Station Shipments: 2010 - 2020

Figure 1.351: Middle East & Africa LTE FDD Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.352: Middle East & Africa TD-LTE Macrocell Base Station Shipments: 2010 - 2020

Figure 1.353: Middle East & Africa TD-LTE Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.354: Middle East & Africa WiMAX Macrocell Base Station Shipments: 2010 - 2020

Figure 1.355: Middle East & Africa WiMAX Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.356: Middle East & Africa Macrocell Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.357: Middle East & Africa GSM Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.358: Middle East & Africa CDMA2000 Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.359: Middle East & Africa W-CDMA Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.360: Middle East & Africa Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.361: Middle East & Africa 3G Packet Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.362: Middle East & Africa WiMAX ASN & CSN Revenue: 2010 - 2020 (\$ Million)

Figure 1.363: Middle East & Africa EPC Revenue: 2010 - 2020 (\$ Million)

Figure 1.364: Middle East & Africa Home Location Register (HLR) Revenue: 2010 - 2020 (\$ Million)

Figure 1.365: Middle East & Africa Mobile Switching Subsystem Revenue: 2010 - 2020 (\$ Million)

Figure 1.366: Middle East & Africa Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.367: Middle East & Africa Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.368: Middle East & Africa Carrier WiFi Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.369: Middle East & Africa Carrier WiFi Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.370: Middle East & Africa Distributed Antenna Systems (DAS) Revenue: 2010 - 2020 (\$ Million)

Figure 1.371: Middle East & Africa Remote Radio Head (RRH) Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.372: Middle East & Africa Remote Radio Head (RRH) Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.373: Middle East & Africa Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.374: Middle East & Africa Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.375: North America Macrocell RAN & Mobile Core Revenue: 2010 – 2020 (\$ Million)

Figure 1.376: North America 2G/3G vs. 4G Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.377: North America Macrocell RAN Revenue: 2010 - 2020 (\$ Million)

Figure 1.378: North America Macrocell RAN Base Station Shipments: 2010 - 2020

Figure 1.379: North America Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.380: North America GSM Macrocell Base Station Shipments: 2010 - 2020

Figure 1.381: North America GSM Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.382: North America CDMA2000/EV-DO Macrocell Base Station Shipments: 2010 - 2020

Figure 1.383: North America CDMA2000/EV-DO Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.384: North America W-CDMA/HSPA Macrocell Base Station Shipments: 2010 - 2020

Figure 1.385: North America W-CDMA/HSPA Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.386: North America LTE FDD Macrocell Base Station Shipments: 2010 - 2020

Figure 1.387: North America LTE FDD Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.388: North America TD-LTE Macrocell Base Station Shipments: 2010 - 2020

Figure 1.389: North America TD-LTE Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.390: North America WiMAX Macrocell Base Station Shipments: 2010 - 2020

Figure 1.391: North America WiMAX Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.392: North America Macrocell Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.393: North America GSM Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.394: North America CDMA2000 Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.395: North America W-CDMA Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.396: North America Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.397: North America 3G Packet Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.398: North America WiMAX ASN & CSN Revenue: 2010 - 2020 (\$ Million)

Figure 1.399: North America EPC Revenue: 2010 - 2020 (\$ Million)

Figure 1.400: North America Home Location Register (HLR) Revenue: 2010 - 2020 (\$ Million)

Figure 1.401: North America Mobile Switching Subsystem Revenue: 2010 - 2020 (\$ Million)

Figure 1.402: North America Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.403: North America Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.404: North America Carrier WiFi Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.405: North America Carrier WiFi Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.406: North America Distributed Antenna Systems (DAS) Revenue: 2010 - 2020 (\$ Million)

Figure 1.407: North America Remote Radio Head (RRH) Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.408: North America Remote Radio Head (RRH) Unit Shipment Revenue: 2010

- 2020 (\$ Million)

Figure 1.409: North America Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.410: North America Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.411: Western Europe Macrocell RAN & Mobile Core Revenue: 2010 – 2020 (\$ Million)

Figure 1.412: Western Europe 2G/3G vs. 4G Macrocell RAN & Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.413: Western Europe Macrocell RAN Revenue: 2010 - 2020 (\$ Million)

Figure 1.414: Western Europe Macrocell RAN Base Station Shipments: 2010 - 2020

Figure 1.415: Western Europe Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.416: Western Europe GSM Macrocell Base Station Shipments: 2010 - 2020

Figure 1.417: Western Europe GSM Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.418: Western Europe CDMA2000/EV-DO Macrocell Base Station Shipments: 2010 - 2020

Figure 1.419: Western Europe CDMA2000/EV-DO Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.420: Western Europe W-CDMA/HSPA Macrocell Base Station Shipments: 2010 - 2020

Figure 1.421: Western Europe W-CDMA/HSPA Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.422: Western Europe LTE FDD Macrocell Base Station Shipments: 2010 - 2020

Figure 1.423: Western Europe LTE FDD Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.424: Western Europe TD-LTE Macrocell Base Station Shipments: 2010 - 2020

Figure 1.425: Western Europe TD-LTE Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.426: Western Europe WiMAX Macrocell Base Station Shipments: 2010 - 2020

Figure 1.427: Western Europe WiMAX Macrocell RAN Base Station Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.428: Western Europe Macrocell Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.429: Western Europe GSM Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.430: Western Europe CDMA2000 Base Station Controller Revenue: 2010 - 2020 (\$ Million)

Figure 1.431: Western Europe W-CDMA Base Station Controller Revenue: 2010 - 2020

(\$ Million)

Figure 1.432: Western Europe Mobile Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.433: Western Europe 3G Packet Core Revenue: 2010 - 2020 (\$ Million)

Figure 1.434: Western Europe WiMAX ASN & CSN Revenue: 2010 - 2020 (\$ Million)

Figure 1.435: Western Europe EPC Revenue: 2010 - 2020 (\$ Million)

Figure 1.436: Western Europe Home Location Register (HLR) Revenue: 2010 - 2020 (\$ Million)

Figure 1.437: Western Europe Mobile Switching Subsystem Revenue: 2010 - 2020 (\$ Million)

Figure 1.438: Western Europe Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.439: Western Europe Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.440: Western Europe Carrier WiFi Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.441: Western Europe Carrier WiFi Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.442: Western Europe Distributed Antenna Systems (DAS) Revenue: 2010 - 2020 (\$ Million)

Figure 1.443: Western Europe Remote Radio Head (RRH) Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 1.444: Western Europe Remote Radio Head (RRH) Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 1.445: Western Europe Macrocell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.446: Western Europe Small Cell Backhaul Revenue: 2010 - 2020 (\$ Million)

Figure 1.447: METIS Members

Figure 1.448: Investments in 5G R&D: 2010 – 2020 (\$ Million)

Figure 1.449: METIS 5G Requirements

Figure 1.450: SWOT Analysis of the Wireless Network Infrastructure Market

Figure 2.1: Global LTE Subscriptions by Region: 2010 – 2020 (Millions)

Figure 2.2: HetNet Architecture

Figure 2.3: Small Cell Coverage Range Comparison

Figure 2.4: Small Cell Characteristics & Comparison to Macrocells

Figure 2.5: Mobile Network Data Offloading via WiFi

Figure 2.6: C-RAN Architecture

Figure 2.7: Annual Global Throughput of Mobile Network Data Traffic by Region: 2010 – 2020 (Exabytes)

Figure 2.8: Annual Global Throughput of Mobile Network Data Traffic by Access Network Type (Macrocell, C-RAN, Small Cells, Carrier WiFi, DAS): 2010 – 2020

(Exabytes)

Figure 2.9: Global DAS Spending: 2010 – 2020 (\$ Billion)

Figure 2.10: Iuh based Small Cell Integration in a 3G Mobile Network

Figure 2.11: Iub based Small Cell Integration in a 3G Mobile Network

Figure 2.12: S1 Interface based Small Cell Integration in an LTE Network

Figure 2.13: HetNet Industry Roadmap: 2010 - 2020

Figure 2.14: Annual Global Throughput of Small Cells and Carrier WiFi Data Networks: 2010 – 2020 (Exabytes)

Figure 2.15: The HetNet Value Chain

Figure 2.16: SCaaS Provider and Wireless Carrier Responsibilities in a SCaaS Offering

Figure 2.17: Small Cell Forum's Scope

Figure 2.18: Small Cell Forum Working Groups

Figure 2.19: Global Small Cell & Carrier WiFi Installed Base: 2010 - 2020 (Millions of Units)

Figure 2.20: Global Small Cell & Carrier WiFi Installed Base Compared: 2010 - 2020 (Thousands of Units)

Figure 2.21: Small Cell & Carrier WiFi Installed Base by Region: 2010 - 2020 (Thousands of Units)

Figure 2.22: Global Small Cell & Carrier WiFi Unit Shipments: 2010 - 2020 (Millions of Units)

Figure 2.23: Global Small Cell & Carrier WiFi Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.24: Global Small Cell & Carrier WiFi Unit Shipments Compared: 2010 - 2020 (Thousands of Units)

Figure 2.25: Global Small Cell & Carrier WiFi Unit Shipment Revenue Compared: 2010 - 2020 (\$ Million)

Figure 2.26: Small Cell & Carrier WiFi Unit Shipments by Region: 2010 - 2020 (Thousands of Units)

Figure 2.27: Small Cell & Carrier WiFi Unit Shipment Revenue by Region: 2010 - 2020 (\$ Million)

Figure 2.28: Global Small Cell & Carrier WiFi Data Service Revenue: 2010 - 2020 (\$ Billion)

Figure 2.29: Global Small Cell & Carrier WiFi Data Service Revenue: 2010 - 2020 (\$ Billion)

Figure 2.30: Small Cell & Carrier WiFi Data Service Revenue by Region: 2010 - 2020 (\$ Billion)

Figure 2.31: Annual Global Throughput of Mobile Network Data Traffic over Small Cells: 2010 - 2020 (Exabytes)

Figure 2.32: Global Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.33: Global Small Cell Installed Base by Cell Size (Femto, Pico, Micro): 2010 - 2020 (Thousands of Units)

Figure 2.34: Global Femtocell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.35: Global Picocell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.36: Global Microcell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.37: Global Small Cell Installed Base by Deployment Model (Home/Residential, Enterprise, Metro, Rural): 2010 - 2020 (Thousands of Units)

Figure 2.38: Home/Residential Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.39: Enterprise Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.40: Metro Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.41: Rural Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.42: Global Small Cell Installed Base by Air Interface Technology Generation (2G, 3G, 4G): 2010 - 2020 (Thousands of Units)

Figure 2.43: 2G/3G (CDMA2000/GSM-WCDMA) Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.44: 4G (LTE/WiMAX) Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.45: Global Small Cell Installed Base by Air Interface Technology (GSM/W-CDMA/HSPA, CDMA2000/EV-DO, LTE FDD/TD-LTE, WiMAX): 2010 - 2020 (Thousands of Units)

Figure 2.46: GSM/W-CDMA/HSPA Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.47: CDMA2000/EV-DO Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.48: LTE FDD Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.49: TD-LTE Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.50: WiMAX Small Cell Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.51: Small Cell Installed Base by Region: 2010 - 2020 (Thousands of Units)

Figure 2.52: Global Small Cell Unit Shipments: 2010 - 2020 (Millions of Units)

Figure 2.53: Global Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.54: Global Small Cell Unit Shipments by Cell Size (Femto, Pico, Micro): 2010 - 2020 (Millions of Units)

Figure 2.55: Global Small Cell Unit Shipment Revenue by Cell Size (Femto, Pico, Micro): 2010 - 2020 (\$ Million)

Figure 2.56: Global Femtocell Unit Shipments: 2010 - 2020 (Millions of Units)

Figure 2.57: Global Femtocell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.58: Global Picocell Unit Shipments: 2010 - 2020 (Millions of Units)

Figure 2.59: Global Picocell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

- Figure 2.60: Global Microcell Unit Shipments: 2010 - 2020 (Millions of Units)
- Figure 2.61: Global Microcell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 2.62: Global Small Cell Unit Shipments by Deployment Model (Residential, Enterprise, Metro, Rural): 2010 - 2020 (Thousands of Units)
- Figure 2.63: Global Small Cell Unit Shipment Revenue by Deployment Model (Residential, Enterprise, Metro, Rural): 2010 - 2020 (\$ Million)
- Figure 2.64: Home/Residential Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 2.65: Home/Residential Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 2.66: Enterprise Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 2.67: Enterprise Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 2.68: Metro Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 2.69: Metro Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 2.70: Rural Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 2.71: Rural Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 2.72: Global Small Cell Unit Shipments by Air Interface Technology Generation (2G, 3G, 4G): 2010 - 2020 (Thousands of Units)
- Figure 2.73: Global Small Cell Unit Shipment Revenue by Air Interface Technology Generation (2G, 3G, 4G): 2010 - 2020 (\$ Million)
- Figure 2.74: 2G/3G (CDMA2000/GSM/W-CDMA) Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 2.75: 2G/3G (CDMA2000/GSM/W-CDMA) Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 2.76: 4G (LTE/WiMAX) Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 2.77: 4G (LTE/WiMAX) Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 2.78: Global Small Cell Unit Shipments by Air Interface Technology (GSM/W-CDMA/HSPA, CDMA2000/EV-DO, LTE FDD, TD-LTE, WiMAX): 2010 - 2020 (Thousands of Units)
- Figure 2.79: Global Small Cell Unit Shipment Revenue by Air Interface Technology (GSM/W-CDMA/HSPA, CDMA2000/EV-DO, LTE FDD, TD-LTE, WiMAX): 2010 - 2020 (\$ Million)
- Figure 2.80: GSM/W-CDMA/HSPA Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)
- Figure 2.81: GSM/W-CDMA/HSPA Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)
- Figure 2.82: CDMA2000/EV-DO Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Units)

Figure 2.83: CDMA2000/EV-DO Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.84: LTE FDD Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 2.85: LTE FDD Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.86: TD-LTE Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 2.87: TD-LTE Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.88: WiMAX Small Cell Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 2.89: WiMAX Small Cell Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.90: Small Cell Unit Shipments by Region: 2010 - 2020 (Thousands of Units)

Figure 2.91: Small Cell Unit Shipment Revenue by Region: 2010 - 2020 (\$ Million)

Figure 2.92: Global Small Cell Mobile Data Service Revenue: 2010 - 2020 (\$ Billion)

Figure 2.93: Small Cell Mobile Data Service Revenue by Region: 2010 - 2020 (\$ Billion)

Figure 2.94: Annual Global Throughput of Mobile Network Data Traffic over Carrier WiFi: 2010 - 2020 (Exabytes)

Figure 2.95: Global Carrier WiFi Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.96: Global Carrier WiFi Installed Base by Equipment Type (Access Points, Access Point Controllers): 2010 - 2020 (Thousands of Units)

Figure 2.97: Global Carrier WiFi Access Point Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.98: Global Carrier WiFi Access Point Controller Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.99: Global Carrier WiFi Access Point Installed Base by Integration Approach (Managed WiFi Offload, Unmanaged 'Open Access' WiFi): 2010 - 2020 (Thousands of Units)

Figure 2.100: Managed WiFi Offload Access Point Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.101: Unmanaged 'Open Access' WiFi Access Point Installed Base: 2010 - 2020 (Thousands of Units)

Figure 2.102: Carrier WiFi Installed Base by Region: 2010 - 2020 (Thousands of Units)

Figure 2.103: Global Carrier WiFi Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 2.104: Global Carrier WiFi Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.105: Global Carrier WiFi Unit Shipments by Equipment Type (Access Points, Access Point Controllers): 2010 - 2020 (Thousands of Units)

Figure 2.106: Global Carrier WiFi Unit Shipment Revenue by Equipment Type (Access Points, Access Point Controllers): 2010 - 2020 (\$ Million)

Figure 2.107: Global Carrier WiFi Access Point Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 2.108: Global Carrier WiFi Access Point Unit Shipment Revenue: 2010 - 2020 (\$

Million)

Figure 2.109: Global Carrier WiFi Access Point Controller Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 2.110: Global Carrier WiFi Access Point Controller Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.111: Global Carrier WiFi Access Point Unit Shipments by Integration Approach (Managed WiFi Offload, Unmanaged 'Open Access' WiFi): 2010 - 2020 (Thousands of Units)

Figure 2.112: Global Carrier WiFi Access Point Unit Shipment Revenue by Integration Approach (Managed WiFi Offload, Unmanaged 'Open Access' WiFi): 2010 - 2020 (\$ Million)

Figure 2.113: Global Managed WiFi Offload Access Point Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 2.114: Global Managed WiFi Offload Access Point Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.115: Global Unmanaged 'Open Access' WiFi Access Point Unit Shipments: 2010 - 2020 (Thousands of Units)

Figure 2.116: Global Unmanaged 'Open Access' WiFi Access Point Unit Shipment Revenue: 2010 - 2020 (\$ Million)

Figure 2.117: Carrier WiFi Unit Shipments by Region: 2010 - 2020 (Thousands of Units)

Figure 2.118: Carrier WiFi Unit Shipment Revenue by Region: 2010 - 2020 (\$ Million)

Figure 2.119: Global Carrier WiFi Mobile Data Service Revenue: 2010 - 2020 (\$ Billion)

Figure 2.120: Carrier WiFi Mobile Data Service Revenue by Region: 2010 - 2020 (\$ Billion)

Figure 2.121: Global SCaaS Revenue: 2010 - 2020 (\$ Billion)

Figure 2.122: SCaaS Revenue by Region: 2010 - 2020 (\$ Billion)

Figure 2.123: Global Small Cell Backhaul Infrastructure Spending: 2010 - 2020 (\$ Million)

Figure 2.124: Global Small Cell Backhaul Infrastructure Spending by Technology: 2010 - 2020 (\$ Million)

Figure 2.125: Ethernet over Copper Small Cell Backhaul Infrastructure Spending: 2010 - 2020 (\$ Million)

Figure 2.126: Ethernet over Fiber Small Cell Backhaul Infrastructure Spending: 2010 - 2020 (\$ Million)

Figure 2.127: DSL Modems and DSLAMs Small Cell Backhaul Infrastructure Spending: 2010 - 2020 (\$ Million)

Figure 2.128: NLOS Microwave (Below 6 GHz) Small Cell Backhaul Infrastructure Spending: 2010 - 2020 (\$ Million)

Figure 2.129: PTP Microwave (6-60GHz) Small Cell Backhaul Infrastructure Spending:

2010 - 2020 (\$ Million)

Figure 2.130: PTMP Microwave (6-60GHz) Small Cell Backhaul Infrastructure

Spending: 2010 - 2020 (\$ Million)

Figure 2.131: Millimeter Wave (Unlicensed 60GHz) Small Cell Backhaul Infrastructure

Spending: 2010 - 2020 (\$ Million)

Figure 2.132: Millimeter Wave (Licensed 71-76GHz, 81-86GHz) Small Cell Backhaul Infrastructure Spending: 2010 - 2020 (\$ Million)

Figure 2.133: Satellite Based Small Cell Backhaul Infrastructure Spending: 2010 - 2020 (\$ Million)

Figure 2.134: Small Cell Backhaul Infrastructure Spending by Region: 2010 - 2020 (\$ Million)

Figure 2.135: Annual Global Throughput of Mobile Network Data Traffic over DAS: 2010 - 2020 (Exabytes)

Figure 2.136: Global DAS Infrastructure Spending: 2010 - 2020 (\$ Billion)

Figure 2.137: DAS Infrastructure Spending by Region: 2010 - 2020 (\$ Billion)

Figure 2.138: Global C-RAN Infrastructure Spending: 2010 - 2020 (\$ Billion)

Figure 2.139: C-RAN Infrastructure Spending by Region: 2010 - 2020 (\$ Million)

Figure 2.140: Global SON Solution Spending: 2010 - 2020 (\$ Billion)

Figure 2.141: SON Solution Spending by Region: 2010 - 2020 (\$ Million)

Figure 2.142: Global Mobile Network Data Service Revenue: 2010 - 2020 (\$ Billion)

Figure 2.143: Global Mobile Network Data Service Revenue by Access Network Type (Macrocell, Small Cell, Carrier WiFi, DAS): 2010 - 2020 (\$ Million)

Figure 2.144: Macrocell & C-RAN based Mobile Network Data Service Revenue: 2010 - 2020 (\$ Billion)

Figure 2.145: Small Cell based Mobile Network Data Service Revenue: 2010 - 2020 (\$ Billion)

Figure 2.146: Carrier WiFi based Mobile Network Data Service Revenue: 2010 - 2020 (\$ Billion)

Figure 2.147: DAS based Mobile Network Data Service Revenue: 2010 - 2020 (\$ Billion)

Figure 2.148: Mobile Network Data Service Revenue by Region: 2010 - 2020 (\$ Million)

Figure 2.149: Annual Throughput of Mobile Network Data Traffic in North America: 2010 - 2020 (Exabytes)

Figure 2.150: Mobile Network Data Service Revenue in North America: 2010 - 2020 (\$ Million)

Figure 2.151: Small Cell & Carrier WiFi Installed Base in North America: 2010 - 2020 (Thousands of Units)

Figure 2.152: Small Cell & Carrier WiFi Unit Shipments in North America: 2010 - 2020 (Thousands of Units)

Figure 2.153: Small Cell & Carrier WiFi Unit Shipment Revenue in North America: 2010 - 2020 (\$ Million)

Figure 2.154: Small Cell & Carrier WiFi Data Service Revenue in North America: 2010 - 2020 (\$ Billion)

Figure 2.155: Small Cell Installed Base in North America: 2010 - 2020 (Thousands of Units)

Figure 2.156: Small Cell Unit Shipments in North America: 2010 - 2020 (Thousands of Units)

Figure 2.157: Small Cell Unit Shipment Revenue in North America: 2010 - 2020 (\$ Million)

Figure 2.158: Small Cell Mobile Data Service Revenue in North America: 2010 - 2020 (\$ Billion)

Figure 2.159: Carrier WiFi Installed Base in North America: 2010 - 2020 (Thousands of Units)

Figure 2.160: Carrier WiFi Unit Shipments in North America: 2010 - 2020 (Thousands of Units)

Figure 2.161: Carrier WiFi Unit Shipment Revenue in North America: 2010 - 2020 (\$ Million)

Figure 2.162: Carrier WiFi Mobile Data Service Revenue in North America: 2010 - 2020 (\$ Billion)

Figure 2.163: SCaaS Revenue in North America: 2010 - 2020 (\$ Billion)

Figure 2.164: Small Cell Backhaul Infrastructure Spending in North America: 2010 - 2020 (\$ Million)

Figure 2.165: DAS Infrastructure Spending in North America: 2010 - 2020 (\$ Billion)

Figure 2.166: C-RAN Infrastructure Spending in North America: 2010 - 2020 (\$ Million)

Figure 2.167: SON Solution Spending in North America: 2010 - 2020 (\$ Million)

Figure 2.168: Annual Throughput of Mobile Network Data Traffic in Asia Pacific: 2010 - 2020 (Exabytes)

Figure 2.169: Mobile Network Data Service Revenue in Asia Pacific: 2010 - 2020 (\$ Million)

Figure 2.170: Small Cell & Carrier WiFi Installed Base in Asia Pacific: 2010 - 2020 (Thousands of Units)

Figure 2.171: Small Cell & Carrier WiFi Unit Shipments in Asia Pacific: 2010 - 2020 (Thousands of Units)

Figure 2.172: Small Cell & Carrier WiFi Unit Shipment Revenue in Asia Pacific: 2010 - 2020 (\$ Million)

Figure 2.173: Small Cell & Carrier WiFi Data Service Revenue in Asia Pacific: 2010 - 2020 (\$ Billion)

Figure 2.174: Small Cell Installed Base in Asia Pacific: 2010 - 2020 (Thousands of

Units)

Figure 2.175: Small Cell Unit Shipments in Asia Pacific: 2010 - 2020 (Thousands of Units)

Figure 2.176: Small Cell Unit Shipment Revenue in Asia Pacific: 2010 - 2020 (\$ Million)

Figure 2.177: Small Cell Mobile Data Service Revenue in Asia Pacific: 2010 - 2020 (\$ Billion)

Figure 2.178: Carrier WiFi Installed Base in Asia Pacific: 2010 - 2020 (Thousands of Units)

Figure 2.179: Carrier WiFi Unit Shipments in Asia Pacific: 2010 - 2020 (Thousands of Units)

Figure 2.180: Carrier WiFi Unit Shipment Revenue in Asia Pacific: 2010 - 2020 (\$ Million)

Figure 2.181: Carrier WiFi Mobile Data Service Revenue in Asia Pacific: 2010 - 2020 (\$ Billion)

Figure 2.182: SCaaS Revenue in Asia Pacific: 2010 - 2020 (\$ Billion)

Figure 2.183: Small Cell Backhaul Infrastructure Spending in Asia Pacific: 2010 - 2020 (\$ Million)

Figure 2.184: DAS Infrastructure Spending in Asia Pacific: 2010 - 2020 (\$ Billion)

Figure 2.185: C-RAN Infrastructure Spending in Asia Pacific: 2010 - 2020 (\$ Million)

Figure 2.186: SON Solution Spending in Asia Pacific: 2010 - 2020 (\$ Million)

Figure 2.187: Annual Throughput of Mobile Network Data Traffic in Western Europe: 2010 – 2020 (Exabytes)

Figure 2.188: Mobile Network Data Service Revenue in Western Europe: 2010 - 2020 (\$ Million)

Figure 2.189: Small Cell & Carrier WiFi Installed Base in Western Europe: 2010 - 2020 (Thousands of Units)

Figure 2.190: Small Cell & Carrier WiFi Unit Shipments in Western Europe: 2010 - 2020 (Thousands of Units)

Figure 2.191: Small Cell & Carrier WiFi Unit Shipment Revenue in Western Europe: 2010 - 2020 (\$ Million)

Figure 2.192: Small Cell & Carrier WiFi Data Service Revenue in Western Europe: 2010 - 2020 (\$ Billion)

Figure 2.193: Small Cell Installed Base in Western Europe: 2010 - 2020 (Thousands of Units)

Figure 2.194: Small Cell Unit Shipments in Western Europe: 2010 - 2020 (Thousands of Units)

Figure 2.195: Small Cell Unit Shipment Revenue in Western Europe: 2010 - 2020 (\$ Million)

Figure 2.196: Small Cell Mobile Data Service Revenue in Western Europe: 2010 - 2020

(\$ Billion)

Figure 2.197: Carrier WiFi Installed Base in Western Europe: 2010 - 2020 (Thousands of Units)

Figure 2.198: Carrier WiFi Unit Shipments in Western Europe: 2010 - 2020 (Thousands of Units)

Figure 2.199: Carrier WiFi Unit Shipment Revenue in Western Europe: 2010 - 2020 (\$ Million)

Figure 2.200: Carrier WiFi Mobile Data Service Revenue in Western Europe: 2010 - 2020 (\$ Billion)

Figure 2.201: SCaaS Revenue in Western Europe: 2010 - 2020 (\$ Billion)

Figure 2.202: Small Cell Backhaul Infrastructure Spending in Western Europe: 2010 - 2020 (\$ Million)

Figure 2.203: DAS Infrastructure Spending in Western Europe: 2010 - 2020 (\$ Billion)

Figure 2.204: C-RAN Infrastructure Spending in Western Europe: 2010 - 2020 (\$ Million)

Figure 2.205: SON Solution Spending in Western Europe: 2010 - 2020 (\$ Million)

Figure 2.206: Annual Throughput of Mobile Network Data Traffic in Eastern Europe: 2010 – 2020 (Exabytes)

Figure 2.207: Mobile Network Data Service Revenue in Eastern Europe: 2010 - 2020 (\$ Million)

Figure 2.208: Small Cell & Carrier WiFi Installed Base in Eastern Europe: 2010 - 2020 (Thousands of Units)

Figure 2.209: Small Cell & Carrier WiFi Unit Shipments in Eastern Europe: 2010 - 2020 (Thousands of Units)

Figure 2.210: Small Cell & Carrier WiFi Unit Shipment Revenue in Eastern Europe: 2010 - 2020 (\$ Million)

Figure 2.211: Small Cell & Carrier WiFi Data Service Revenue in Eastern Europe: 2010 - 2020 (\$ Billion)

Figure 2.212: Small Cell Installed Base in Eastern Europe: 2010 - 2020 (Thousands of Units)

Figure 2.213: Small Cell Unit Shipments in Eastern Europe: 2010 - 2020 (Thousands of Units)

Figure 2.214: Small Cell Unit Shipment Revenue in Eastern Europe: 2010 - 2020 (\$ Million)

Figure 2.215: Small Cell Mobile Data Service Revenue in Eastern Europe: 2010 - 2020 (\$ Billion)

Figure 2.216: Carrier WiFi Installed Base in Eastern Europe: 2010 - 2020 (Thousands of Units)

Figure 2.217: Carrier WiFi Unit Shipments in Eastern Europe: 2010 - 2020 (Thousands

of Units)

Figure 2.218: Carrier WiFi Unit Shipment Revenue in Eastern Europe: 2010 - 2020 (\$ Million)

Figure 2.219: Carrier WiFi Mobile Data Service Revenue in Eastern Europe: 2010 - 2020 (\$ Billion)

Figure 2.220: SCaaS Revenue in Eastern Europe: 2010 - 2020 (\$ Billion)

Figure 2.221: Small Cell Backhaul Infrastructure Spending in Eastern Europe: 2010 - 2020 (\$ Million)

Figure 2.222: DAS Infrastructure Spending in Eastern Europe: 2010 - 2020 (\$ Billion)

Figure 2.223: C-RAN Infrastructure Spending in Eastern Europe: 2010 - 2020 (\$ Million)

Figure 2.224: SON Solution Spending in Eastern Europe: 2010 - 2020 (\$ Million)

Figure 2.225: Annual Throughput of Mobile Network Data Traffic in Middle East & Africa: 2010 – 2020 (Exabytes)

Figure 2.226: Mobile Network Data Service Revenue in Middle East & Africa: 2010 - 2020 (\$ Million)

Figure 2.227: Small Cell & Carrier WiFi Installed Base in Middle East & Africa: 2010 - 2020 (Thousands of Units)

Figure 2.228: Small Cell & Carrier WiFi Unit Shipments in Middle East & Africa: 2010 - 2020 (Thousands of Units)

Figure 2.229: Small Cell & Carrier WiFi Unit Shipment Revenue in Middle East & Africa: 2010 - 2020 (\$ Million)

Figure 2.230: Small Cell & Carrier WiFi Data Service Revenue in Middle East & Africa: 2010 - 2020 (\$ Billion)

Figure 2.231: Small Cell Installed Base in Middle East & Africa: 2010 - 2020 (Thousands of Units)

Figure 2.232: Small Cell Unit Shipments in Middle East & Africa: 2010 - 2020 (Thousands of Units)

Figure 2.233: Small Cell Unit Shipment Revenue in Middle East & Africa: 2010 - 2020 (\$ Million)

Figure 2.234: Small Cell Mobile Data Service Revenue in Middle East & Africa: 2010 - 2020 (\$ Billion)

Figure 2.235: Carrier WiFi Installed Base in Middle East & Africa: 2010 - 2020 (Thousands of Units)

Figure 2.236: Carrier WiFi Unit Shipments in Middle East & Africa: 2010 - 2020 (Thousands of Units)

Figure 2.237: Carrier WiFi Unit Shipment Revenue in Middle East & Africa: 2010 - 2020 (\$ Million)

Figure 2.238: Carrier WiFi Mobile Data Service Revenue in Middle East & Africa: 2010 - 2020 (\$ Billion)

Figure 2.239: SCaaS Revenue in Middle East & Africa: 2010 - 2020 (\$ Billion)

Figure 2.240: Small Cell Backhaul Infrastructure Spending in Middle East & Africa: 2010 - 2020 (\$ Million)

Figure 2.241: DAS Infrastructure Spending in Middle East & Africa: 2010 - 2020 (\$ Billion)

Figure 2.242: C-RAN Infrastructure Spending in Middle East & Africa: 2010 - 2020 (\$ Million)

Figure 2.243: SON Solution Spending in Middle East & Africa: 2010 - 2020 (\$ Million)

Figure 2.244: Annual Throughput of Mobile Network Data Traffic in Latin & Central America: 2010 – 2020 (Exabytes)

Figure 2.245: Mobile Network Data Service Revenue in Latin & Central America: 2010 - 2020 (\$ Million)

Figure 2.246: Small Cell & Carrier WiFi Installed Base in Latin & Central America: 2010 - 2020 (Thousands of Units)

Figure 2.247: Small Cell & Carrier WiFi Unit Shipments in Latin & Central America: 2010 - 2020 (Thousands of Units)

Figure 2.248: Small Cell & Carrier WiFi Unit Shipment Revenue in Latin & Central America: 2010 - 2020 (\$ Million)

Figure 2.249: Small Cell & Carrier WiFi Data Service Revenue in Latin & Central America: 2010 - 2020 (\$ Billion)

Figure 2.250: Small Cell Installed Base in Latin & Central America: 2010 - 2020 (Thousands of Units)

Figure 2.251: Small Cell Unit Shipments in Latin & Central America: 2010 - 2020 (Thousands of Units)

Figure 2.252: Small Cell Unit Shipment Revenue in Latin & Central America: 2010 - 2020 (\$ Million)

Figure 2.253: Small Cell Mobile Data Service Revenue in Latin & Central America: 2010 - 2020 (\$ Billion)

Figure 2.254: Carrier WiFi Installed Base in Latin & Central America: 2010 - 2020 (Thousands of Units)

Figure 2.255: Carrier WiFi Unit Shipments in Latin & Central America: 2010 - 2020 (Thousands of Units)

Figure 2.256: Carrier WiFi Unit Shipment Revenue in Latin & Central America: 2010 - 2020 (\$ Million)

Figure 2.257: Carrier WiFi Mobile Data Service Revenue in Latin & Central America: 2010 - 2020 (\$ Billion)

Figure 2.258: SCaaS Revenue in Latin & Central America: 2010 - 2020 (\$ Billion)

Figure 2.259: Small Cell Backhaul Infrastructure Spending in Latin & Central America: 2010 - 2020 (\$ Million)

Figure 2.260: DAS Infrastructure Spending in Latin & Central America: 2010 - 2020 (\$ Billion)

Figure 2.261: C-RAN Infrastructure Spending in Latin & Central America: 2010 - 2020 (\$ Million)

Figure 2.262: SON Solution Spending in Latin & Central America: 2010 - 2020 (\$ Million)

Figure 2.263: Global HetNet Centric SON Revenue: 2010 - 2020 (\$ Million)

Figure 2.264: Mobile Fronthaul Investments by Region: 2014 - 2020 (\$ Million)

Figure 2.265: TCO Comparison between LTE and LMR Technologies

Figure 2.266: Global Military, Tactical & Public Safety LTE Small Cell Shipments: 2014 – 2020

Figure 2.267: Global Military, Tactical & Public Safety LTE Small Cell Shipment Revenue: 2014 – 2020 (\$ Million)

Figure 2.268: WiFi Enabled LTE Gateway Unit Shipments by Region: 2014 - 2020 (Thousands of Units)

Figure 2.269: WiFi Enabled LTE Gateway Unit Shipment Revenue by Region: 2014 - 2020 (\$ Million)

Figure 2.270: Global Spending on Enterprise RAN Solutions: 2014 - 2020 (\$ Million)

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