

The NFV, SDN & Wireless Network Infrastructure Market: 2017 – 2030 – Opportunities, Challenges, Strategies and Forecasts

https://marketpublishers.com/r/NB2DCD8D810EN.html

Date: January 2018

Pages: 2529

Price: US\$ 4,000.00 (Single User License)

ID: NB2DCD8D810EN

Abstracts

Service providers continue to face increasing CapEx and OpEx burdens, amid growing requirements for high-speed mobile broadband services. By eliminating reliance on expensive proprietary hardware platforms, NFV (Network Functions Virtualization) and SDN (Software Defined Networking) promise to reduce service provider CapEx. In addition, both technologies can significantly slash OpEx due to a reduction in physical space, labor and power consumption.

Driven by the promise of TCO (Total Cost of Ownership) reduction, mobile operators are aggressively jumping on the NFV and SDN bandwagon, targeting deployments across a multitude of areas. SNS Telecom & IT estimates that NFV and SDN investments in service provider networks – both mobile and fixed-line – will account for nearly \$22 Billion by the end of 2020. Approximately 40% of these investments will be directed towards the mobile core, IMS/VoLTE and RAN segments of mobile operator networks.

Spanning over 2,000 pages, the 'NFV, SDN & Wireless Network Infrastructure Market: 2017 – 2030 – Opportunities, Challenges, Strategies and Forecasts" report package encompasses three comprehensive reports covering covering NFV, SDN, conventional 2G, 3G, 4G & 5G wireless network infrastructure, and HetNet (Heterogeneous Network) infrastructure:

The SDN, NFV & Network Virtualization Ecosystem: 2017 – 2030 – Opportunities, Challenges, Strategies & Forecasts

The Wireless Network Infrastructure Ecosystem: 2017 – 2030 – Macrocell RAN,



Small Cells, C-RAN, RRH, DAS, Carrier Wi-Fi, Mobile Core, Backhaul & Fronthaul

The HetNet Ecosystem (Small Cells, Carrier Wi-Fi, C-RAN & DAS): 2017 – 2030 – Opportunities, Challenges, Strategies & Forecasts

This report package provides an in-depth assessment of NFV, SDN, network virtualization, 2G, 3G, 4G & 5G wireless network infrastructure and HetNet gear. Besides analyzing enabling technologies, key trends, market drivers, challenges, use cases, mobile operator case studies, regional CapEx commitments, regulatory landscape, standardization, opportunities, future roadmap, value chain, ecosystem player profiles and strategies, the report package also presents revenue and unit shipment forecasts for multiple submarkets including:

Conventional 2G, 3G, 4G & 5G Wireless Network Infrastructure

Standalone Macrocell RAN

Mobile Core

Macrocell Backhaul

HetNet Infrastructure

Small Cells

Small Cell Backhaul

Carrier Wi-Fi

C-RAN (Centralized RAN)

C-RAN Fronthaul

DAS (Distributed Antenna Systems)



NFV

NFVI (NFV Infrastructure)

NFV MANO (Management & Orchestration) Software

VNF (Virtualized Network Function) Software

SDN

SDN-Enabled Switches, Routers & Other Appliances

SDN Controller Software

SDN Orchestration Software

SDN Network Applications

SD-WAN Appliances

SD-WAN Control & Overlay Software

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



Contents

REPORT 1 – THE SDN, NFV & NETWORK VIRTUALIZATION ECOSYSTEM: 2017 – 2030 – OPPORTUNITIES, CHALLENGES, STRATEGIES & FORECASTS

- 1 CHAPTER 1: INTRODUCTION
- 2 CHAPTER 2: AN OVERVIEW OF SDN, NFV & NETWORK VIRTUALIZATION
- 3 CHAPTER 3: SDN & NFV USE CASE SCENARIOS
- 4 CHAPTER 4: SDN & NFV DEPLOYMENT CASE STUDIES & COMMITMENTS
- 5 CHAPTER 5: INDUSTRY ROADMAP AND VALUE CHAIN
- 6 CHAPTER 6: STANDARDIZATION, REGULATORY & COLLABORATIVE

INITIATIVES

- 7 CHAPTER 7: COMPANY PROFILES
- 8 CHAPTER 8: MARKET ANALYSIS & FORECASTS
- 9 CHAPTER 9: CONCLUSION & STRATEGIC RECOMMENDATIONS

REPORT 2 – THE WIRELESS NETWORK INFRASTRUCTURE ECOSYSTEM: 2017 – 2030 – MACROCELL RAN, SMALL CELLS, C-RAN, RRH, DAS, CARRIER WI-FI, MOBILE CORE, BACKHAUL & FRONTHAUL

- 1 CHAPTER 1: INTRODUCTION
- 2 CHAPTER 2: AN OVERVIEW OF WIRELESS NETWORK INFRASTRUCTURE
- 3 CHAPTER 3: MARKET DRIVERS, BARRIERS & RISKS
- 4 CHAPTER 4: MOBILE NETWORK CAPEX REVIEW
- 5 CHAPTER 5: MOBILE NETWORK SUBSCRIPTIONS & SERVICE REVENUE REVIEW
- 6 CHAPTER 6: WIRELESS NETWORK DEPLOYMENT STRATEGIES
- 7 CHAPTER 7: INDUSTRY ROADMAP & VALUE CHAIN
- 8 CHAPTER 8: VENDOR LANDSCAPE
- 9 CHAPTER 9: WIRELESS NETWORK INFRASTRUCTURE INCUMBENTS
- 10 CHAPTER 10: MACROCELL RAN, SMALL CELL, C-RAN & MOBILE CORE SPECIALISTS
- 11 CHAPTER 11: ANTENNA, DAS, RRH, REPEATER & SITE SOLUTION SPECIALISTS
- 12 CHAPTER 12: CARRIER WI-FI SPECIALISTS
- 13 CHAPTER 13: ENABLING & COMPLEMENTARY TECHNOLOGY PROVIDERS
- 14 CHAPTER 14: MOBILE BACKHAUL & FRONTHAUL SOLUTION PROVIDERS
- 15 CHAPTER 15: GLOBAL MARKET ANALYSIS & FORECASTS
- 16 CHAPTER 16: REGIONAL MARKET ANALYSIS & FORECASTS



17 CHAPTER 17: CONCLUSION & STRATEGIC RECOMMENDATIONS

REPORT 3 – THE HETNET ECOSYSTEM (SMALL CELLS, CARRIER WI-FI, C-RAN & DAS): 2017 – 2030 – OPPORTUNITIES, CHALLENGES, STRATEGIES & FORECASTS

- 1 CHAPTER 1: INTRODUCTION
- 2 CHAPTER 2: AN OVERVIEW OF SMALL CELLS, CARRIER WI-FI, C-RAN & DAS
- 3 CHAPTER 3: INTEGRATION & OFFLOADING TECHNOLOGY
- 4 CHAPTER 4: KEY TRENDS IN NEXT-GENERATION HETNET INFRASTRUCTURE
- 5 CHAPTER 5: INDUSTRY ROADMAP AND VALUE CHAIN
- 6 CHAPTER 6: HETNET DEPLOYMENT MODELS, USE CASES & VERTICAL MARKETS
- 7 CHAPTER 7: HETNET BACKHAUL & FRONTHAUL
- 8 CHAPTER 8: STANDARDIZATION & REGULATORY INITIATIVES
- 9 CHAPTER 9: SERVICE PROVIDER CASE STUDIES
- 10 CHAPTER 10: WIRELESS NETWORK INFRASTRUCTURE INCUMBENTS
- 11 CHAPTER 11: MACROCELL RAN, SMALL CELL, C-RAN & MOBILE CORE SPECIALISTS
- 12 CHAPTER 12: ANTENNA, DAS, RRH, REPEATER & SITE SOLUTION SPECIALISTS
- 13 CHAPTER 13: CARRIER WI-FI SPECIALISTS
- 14 CHAPTER 14: ENABLING & COMPLEMENTARY TECHNOLOGY PROVIDERS
- 15 CHAPTER 15: MOBILE BACKHAUL & FRONTHAUL SOLUTION PROVIDERS
- 16 CHAPTER 16: MARKET ANALYSIS AND FORECASTS
- 17 CHAPTER 17: CONCLUSION AND STRATEGIC RECOMMENDATIONS



List Of Figures

LIST OF FIGURES

| Figure | 1.1: | The | NFV | Conce | pt |
|--------|------|-----|-----|-------|----|
|--------|------|-----|-----|-------|----|

- Figure 1.2: A Comparison of SDN and NFV
- Figure 1.3: vRAN Architecture
- Figure 1.4: Cloud RAN Concept
- Figure 1.5: Virtualized and Non-Virtualized Mobile Core Networks
- Figure 1.6: Conceptual Architecture for End-to-End Network Slicing in Mobile Networks
- Figure 1.7: Key Functional Elements of AT&T's FlexWare uCPE
- Figure 1.8: Baidu's SDN-Capable IDC (Internet Data Center) Transport Network
- Figure 1.9: Key Components of CenturyLink's PSB (Programmable Services Backbone) Architecture
- Figure 1.10: CenturyLink's SD-WAN Service
- Figure 1.11: ECX Fabric (Equinix Cloud Exchange Fabric) Framework
- Figure 1.12: Key Pillar's of Google's SDN Strategy
- Figure 1.13: Google's Espresso Peering Edge Architecture
- Figure 1.14: NTT Communications' Hybrid Cloud Service
- Figure 1.15: NTT Communications' SD-Exchange (Software Defined-Exchange)
- Figure 1.16: Evolution of SK Telecom's Infrastructure: COSMOS and ATSCALE
- Figure 1.17: SK Telecom's SDRAN (Software Defined RAN) Architecture
- Figure 1.18: Telefonica's UNICA Infrastructure Platform
- Figure 1.19: Telefonica's NFV Development Roadmap
- Figure 1.20: Verizon's SDN-NFV High Level Architecture
- Figure 1.21: Conceptual Layers of Vodafone's SDN & NFV Architecture
- Figure 1.22: SDN, NFV & Network Virtualization Industry Roadmap: 2017 2030
- Figure 1.23: SDN, NFV & Network Virtualization Value Chain
- Figure 1.24: CloudNFV Architecture
- Figure 1.25: ETSI NFV Architecture
- Figure 1.26: Global SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.27: Global SDN, NFV & Network Virtualization Revenue by User Base: 2017 2030 (\$ Million)
- Figure 1.28: Global Enterprise & Data Center SDN & Network Virtualization Revenue:
- 2017 2030 (\$ Million)
- Figure 1.29: Global Service Provider SDN & NFV Revenue: 2017 2030 (\$ Million)
- Figure 1.30: Global SDN, NFV & Network Virtualization Revenue by Submarket: 2017 2030 (\$ Million)



- Figure 1.31: Global SDN/SD-WAN Hardware & Software Revenue: 2017 2030 (\$ Million)
- Figure 1.32: Global NFV Hardware & Software Revenue: 2017 2030 (\$ Million)
- Figure 1.33: Global Other Network Virtualization Software Revenue: 2017 2030 (\$ Million)
- Figure 1.34: Global Service Provider SDN & NFV Revenue by Submarket: 2017 2030 (\$ Million)
- Figure 1.35: Global SDN & SD-WAN Revenue by User Base: 2017 2030 (\$ Million)
- Figure 1.36: Global Service Provider SDN/SD-WAN Hardware & Software Revenue:
- 2017 2030 (\$ Million)
- Figure 1.37: Global Enterprise & Data Center SDN/SD-WAN Revenue: 2017 2030 (\$ Million)
- Figure 1.38: Global SDN & SD-WAN Revenue by Submarket: 2017 2030 (\$ Million)
- Figure 1.39: Global SDN-Enabled Switch, Router & Other Appliance Revenue: 2017 2030 (\$ Million)
- Figure 1.40: Global SDN Controller Software Revenue: 2017 2030 (\$ Million)
- Figure 1.41: Global SDN Orchestration Software Revenue: 2017 2030 (\$ Million)
- Figure 1.42: Global SDN Network Applications Revenue: 2017 2030 (\$ Million)
- Figure 1.43: Global SD-WAN Appliance Revenue: 2017 2030 (\$ Million)
- Figure 1.44: Global SD-WAN Control & Overlay Software Revenue: 2017 2030 (\$ Million)
- Figure 1.45: Global NFV Revenue by Submarket: 2017 2030 (\$ Million)
- Figure 1.46: Global NFVI (NFV Infrastructure) Revenue: 2017 2030 (\$ Million)
- Figure 1.47: Global NFV MANO (Management & Orchestration) Software Revenue:
- 2017 2030 (\$ Million)
- Figure 1.48: Global VNF (Virtualized Network Function) Software Revenue: 2017 2030 (\$ Million)
- Figure 1.49: Global Service Provider SDN & NFV Revenue by Functional Area: 2017 2030 (\$ Million)
- Figure 1.50: Global Service Provider SDN & NFV Revenue in the CDN Functional Area: 2017 2030 (\$ Million)
- Figure 1.51: Global Service Provider SDN & NFV Revenue in the CPE Functional Area: 2017 2030 (\$ Million)
- Figure 1.52: Global Service Provider SDN & NFV Revenue in the Data Center Functional Area: 2017 2030 (\$ Million)
- Figure 1.53: Global Service Provider SDN & NFV Revenue in the Fixed Access Network Functional Area: 2017 2030 (\$ Million)
- Figure 1.54: Global Service Provider SDN & NFV Revenue in the IMS & VoLTE Functional Area: 2017 2030 (\$ Million)



- Figure 1.55: Global Service Provider SDN & NFV Revenue in the Mobile Core Functional Area: 2017 2030 (\$ Million)
- Figure 1.56: Global Service Provider SDN & NFV Revenue in the Policy Control Functional Area: 2017 2030 (\$ Million)
- Figure 1.57: Global Service Provider SDN & NFV Revenue in the RAN Functional Area: 2017 2030 (\$ Million)
- Figure 1.58: Global Service Provider SDN & NFV Revenue in the Transport Network Functional Area: 2017 2030 (\$ Million)
- Figure 1.59: Global Service Provider SDN & NFV Revenue in the Other Areas: 2017 2030 (\$ Million)
- Figure 1.60: SDN, NFV & Network Virtualization Revenue by Region: 2017 2030 (\$ Million)
- Figure 1.61: Asia Pacific SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.62: Australia SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.63: China SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.64: India SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.65: Japan SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.66: South Korea SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.67: Pakistan SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.68: Thailand SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.69: Indonesia SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.70: Malaysia SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.71: Taiwan SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.72: Philippines SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.73: Singapore SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.74: SDN, NFV & Network Virtualization Revenue in the Rest of Asia Pacific: 2017 2030 (\$ Million)



- Figure 1.75: Eastern Europe SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.76: Czech Republic SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.77: Poland SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.78: Russia SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.79: SDN, NFV & Network Virtualization Revenue in the Rest of Eastern Europe: 2017 2030 (\$ Million)
- Figure 1.80: Latin & Central America SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.81: Argentina SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.82: Brazil SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.83: Mexico SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.84: SDN, NFV & Network Virtualization Revenue in the Rest of Latin & Central America: 2017 2030 (\$ Million)
- Figure 1.85: Middle East & Africa SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.86: South Africa SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.87: UAE SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.88: Qatar SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.89: Saudi Arabia SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.90: Israel SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.91: SDN, NFV & Network Virtualization Revenue in the Rest of the Middle East & Africa: 2017 2030 (\$ Million)
- Figure 1.92: North America SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.93: USA SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.94: Canada SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.95: Western Europe SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.96: Denmark SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)



- Figure 1.97: Finland SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.98: France SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.99: Germany SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.100: Italy SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.101: Spain SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.102: Sweden SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.103: Norway SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.104: UK SDN, NFV & Network Virtualization Revenue: 2017 2030 (\$ Million)
- Figure 1.105: SDN, NFV & Network Virtualization Revenue in the Rest of Western
- Europe: 2017 2030 (\$ Million)
- Figure 1.106: Global SD-WAN Service Revenue by Submarket: 2017 2030 (\$ Million)
- Figure 1.107: Global Virtualized Mobile Core Investments by Technology: 2017 2030 (\$ Million)
- Figure 1.108: Global Cloud RAN Investments by Submarket: 2017 2030 (\$ Million)
- Figure 1.109: Global SDN & NFV Induced Service Provider CapEx Savings Potential:
- 2017 2030 (\$ Million)
- Figure 2.1: Subsegments of the Wireless Network Infrastructure Market
- Figure 2.2: 5G Performance Requirements
- Figure 2.3: 5G Network Architecture & Interaction with Other Networks
- Figure 2.4: Macrocell RAN Component Segmentation by Technology
- Figure 2.5: HetNet RAN Component Segmentation by Technology
- Figure 2.6: Global VoLTE Subscriptions: 2017 2030 (Millions)
- Figure 2.7: Mobile Backhaul & Fronthaul Segmentation by Technology
- Figure 2.8: Annual Throughput of Mobile Network Data Traffic by Region: 2017 2030 (Exabytes)
- Figure 2.9: Annual Global Throughput of Mobile Network Data Traffic by Access
- Network Technology: 2017 2030 (Exabytes)
- Figure 2.10: Global Public Safety LTE Infrastructure Spending: 2017 2030 (\$ Million)
- Figure 2.11: TCO Comparison for 2G, 3G, LTE and HetNet Deployments (\$ per GB)
- Figure 2.12: Strategic Options for Mobile Operators
- Figure 2.13: Global Mobile Network CapEx: 2017 2030 (\$ Million)
- Figure 2.14: Mobile Network CapEx by Region: 2017 2030 (\$ Million)
- Figure 2.15: Wireless CapEx Commitments for Top 20 Most Influential Mobile



- Operators: 2016 (\$ Million)
- Figure 2.16: America Movil Group Wireless CapEx Commitments (\$ Million)
- Figure 2.17: AT&T Wireless CapEx Commitments (\$ Million)
- Figure 2.18: Bharti Airtel Group Wireless CapEx Commitments (\$ Million)
- Figure 2.19: China Mobile Wireless CapEx Commitments (\$ Million)
- Figure 2.20: China Telecom Wireless CapEx Commitments (\$ Million)
- Figure 2.21: China Unicom Wireless CapEx Commitments (\$ Million)
- Figure 2.22: DT (Deutsche Telekom) Wireless CapEx Commitments (\$ Million)
- Figure 2.23: KDDI Wireless CapEx Commitments (\$ Million)
- Figure 2.24: LG Uplus Wireless CapEx Commitments (\$ Million)
- Figure 2.25: NTT DoCoMo Wireless CapEx Commitments (\$ Million)
- Figure 2.26: Orange Wireless CapEx Commitments (\$ Million)
- Figure 2.27: SK Telecom Wireless CapEx Commitments (\$ Million)
- Figure 2.28: SoftBank Corporation Wireless CapEx Commitments (\$ Million)
- Figure 2.29: Telefonica Group Wireless CapEx Commitments (\$ Million)
- Figure 2.30: Telenor Group Wireless CapEx Commitments (\$ Million)
- Figure 2.31: Telkomsel Wireless CapEx Commitments (\$ Million)
- Figure 2.32: TIM (Telecom Italia Mobile) Wireless Commitments (\$ Million)
- Figure 2.33: VEON Wireless CapEx Commitments (\$ Million)
- Figure 2.34: Verizon Communications Wireless CapEx Commitments (\$ Million)
- Figure 2.35: Vodafone Group Wireless CapEx Commitments (\$ Million)
- Figure 2.36: Asia Pacific Mobile Network CapEx: 2017 2030 (\$ Million)
- Figure 2.37: Eastern Europe Mobile Network CapEx: 2017 2030 (\$ Million)
- Figure 2.38: Latin & Central America Mobile Network CapEx: 2017 2030 (\$ Million)
- Figure 2.39: Middle East & Africa Mobile Network CapEx: 2017 2030 (\$ Million)
- Figure 2.40: North America Mobile Network CapEx: 2017 2030 (\$ Million)
- Figure 2.41: Western Europe Mobile Network CapEx: 2017 2030 (\$ Million)
- Figure 2.42: Global Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.43: Global Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.44: Global Mobile Network Subscriptions by Technology: 2017 2030
- (Millions)
- Figure 2.45: Global Mobile Network Service Revenue by Technology: 2017 2030 (\$
- Billion)
- Figure 2.46: Global 2G & 3G Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.47: Global 2G & 3G Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.48: Global FDD LTE Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.49: Global FDD LTE Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.50: Global TD-LTE Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.51: Global TD-LTE Mobile Network Service Revenue: 2017 2030 (\$ Billion)



- Figure 2.52: Global WiMAX Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.53: Global WiMAX Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.54: Global 5G NR Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.55: Global 5G NR Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.56: Mobile Network Subscriptions by Region: 2017 2030 (Millions)
- Figure 2.57: Mobile Network Service Revenue by Region: 2017 2030 (\$ Billion)
- Figure 2.58: Asia Pacific Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.59: Asia Pacific Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.60: Eastern Europe Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.61: Eastern Europe Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.62: Latin & Central America Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.63: Latin & Central America Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.64: Middle East & Africa Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.65: Middle East & Africa Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.66: North America Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.67: North America Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.68: Western Europe Mobile Network Subscriptions: 2017 2030 (Millions)
- Figure 2.69: Western Europe Mobile Network Service Revenue: 2017 2030 (\$ Billion)
- Figure 2.70: RRH & FTTA Design
- Figure 2.71: C-RAN Architecture
- Figure 2.72: NFV Concept
- Figure 2.73: Conceptual Architecture for End-to-End Network Slicing in Mobile Networks
- Figure 2.74: Wireless Network Infrastructure Industry Roadmap: 2017 2030
- Figure 2.75: Wireless Network Infrastructure Value Chain
- Figure 2.76: Macrocell RAN Market Share by Vendor: 2016 (%)
- Figure 2.77: Mobile Core Market Share by Vendor: 2016 (%)
- Figure 2.78: Small Cell Market Share by Vendor: 2016 (%)
- Figure 2.79: Carrier Wi-Fi Market Share by Vendor: 2016 (%)
- Figure 2.80: C-RAN Market Share by Vendor: 2016 (%)
- Figure 2.81: DAS Market Share by Vendor: 2016 (%)
- Figure 2.82: Backhaul & Fronthaul Market Share by Vendor: 2016 (%)
- Figure 2.83: Global Wireless Network Infrastructure Revenue by Submarket: 2017 2030 (\$ Million)
- Figure 2.84: Global Wireless Network Infrastructure Market Share by Submarket: 2017 (%)
- Figure 2.85: Global Wireless Network Infrastructure Market Share by Submarket: 2020



(%)

Figure 2.86: Global Macrocell RAN & Mobile Core Revenue: 2017 – 2030 (\$ Million)

Figure 2.87: Global Standalone Macrocell Base Station Shipments: 2017 – 2030

(Thousands of Units)

Figure 2.88: Global Standalone Macrocell Base Station Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.89: Global Standalone Macrocell Base Station Shipments by Air Interface

Technology: 2017 – 2030 (Thousands of Units)

Figure 2.90: Global Standalone Macrocell Base Station Shipment Revenue by Air

Interface Technology: 2017 – 2030 (\$ Million)

Figure 2.91: Global 2G & 3G Standalone Macrocell Base Station Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.92: Global 2G & 3G Standalone Macrocell Base Station Shipment Revenue:

2017 – 2030 (\$ Million)

Figure 2.93: Global 2G & 3G Macrocell BSC Revenue: 2017 – 2030 (\$ Million)

Figure 2.94: Global LTE FDD Standalone Macrocell Base Station Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.95: Global LTE FDD Standalone Macrocell Base Station Shipment Revenue:

2017 – 2030 (\$ Million)

Figure 2.96: Global TD-LTE Standalone Macrocell Base Station Shipments: 2017 -

2030 (Thousands of Units)

Figure 2.97: Global TD-LTE Standalone Macrocell Base Station Shipment Revenue:

2017 – 2030 (\$ Million)

Figure 2.98: Global WiMAX Standalone Macrocell Base Station Shipments: 2017 -

2030 (Thousands of Units)

Figure 2.99: Global WiMAX Standalone Macrocell Base Station Shipment Revenue:

2017 – 2030 (\$ Million)

Figure 2.100: Global 5G NR Standalone Macrocell Base Station Shipments: 2019 -

2030 (Thousands of Units)

Figure 2.101: Global 5G NR Standalone Macrocell Base Station Shipment Revenue:

2019 – 2030 (\$ Million)

Figure 2.102: Global Mobile Core Revenue: 2017 – 2030 (\$ Million)

Figure 2.103: Global Mobile Core Revenue by Technology: 2017 – 2030 (\$ Million)

Figure 2.104: Global 3G Packet Core Revenue: 2017 – 2030 (\$ Million)

Figure 2.105: Global HLR Revenue: 2017 – 2030 (\$ Million)

Figure 2.106: Global MSS Revenue: 2017 – 2030 (\$ Million)

Figure 2.107: Global LTE EPC Revenue: 2017 – 2030 (\$ Million)

Figure 2.108: Global WIMAX Mobile Core Revenue: 2017 – 2030 (\$ Million)

Figure 2.109: Global 5G NextGen Core Revenue: 2019 – 2030 (\$ Million)



- Figure 2.110: Global Macrocell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.111: Global Macrocell Backhaul Revenue by Technology: 2017 2030 (\$ Million)
- Figure 2.112: Global Ethernet Macrocell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.113: Global Microwave & Millimeter Wave Macrocell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.114: Global Satellite Macrocell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.115: Global WDM Macrocell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.116: Global PON Macrocell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.117: Global Other Technologies Macrocell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.118: Global Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.119: Global Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.120: Global Small Cell Unit Shipments by Use Case: 2017 2030 (Thousands of Units)
- Figure 2.121: Global Small Cell Unit Shipment Revenue by Use Case: 2017 2030 (\$ Million)
- Figure 2.122: Global Residential Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.123: Global Residential Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.124: Global Enterprise Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.125: Global Enterprise Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.126: Global Urban Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.127: Global Urban Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.128: Global Rural & Suburban Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.129: Global Rural & Suburban Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.130: Global Small Cell Unit Shipments by Form Factor: 2017 2030 (Thousands of Units)
- Figure 2.131: Global Small Cell Unit Shipment Revenue by Form Factor: 2017 2030 (\$ Million)
- Figure 2.132: Global Femtocell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.133: Global Femtocell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.134: Global Picocell Unit Shipments: 2017 2030 (Thousands of Units)



- Figure 2.135: Global Picocell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.136: Global Microcell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.137: Global Microcell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.138: Global Small Cell Unit Shipments by Air Interface Technology: 2017 2030 (Thousands of Units)
- Figure 2.139: Global Small Cell Unit Shipment Revenue by Air Interface Technology: 2017 2030 (\$ Million)
- Figure 2.140: Global 2G & 3G Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.141: Global 2G & 3G Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.142: Global LTE Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.143: Global LTE Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.144: Global 5G NR Small Cell Unit Shipments: 2019 2030 (Thousands of Units)
- Figure 2.145: Global 5G NR Small Cell Unit Shipment Revenue: 2019 2030 (\$ Million)
- Figure 2.146: Global Small Cell Unit Shipments by Deployment Model: 2017 2030 (Thousands of Units)
- Figure 2.147: Global Small Cell Unit Shipment Revenue by Deployment Model: 2017 2030 (\$ Million)
- Figure 2.148: Global Indoor Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.149: Global Indoor Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.150: Global Outdoor Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.151: Global Outdoor Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.152: Global Small Cell Unit Shipments by RAN Architecture: 2017 2030 (Thousands of Units)
- Figure 2.153: Global Small Cell Unit Shipment Revenue by RAN Architecture: 2017 2030 (\$ Million)
- Figure 2.154: Global Standalone Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.155: Global Standalone Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.156: Global C-RAN Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.157: Global C-RAN Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.158: Global Small Cell Backhaul Revenue: 2017 2030 (\$ Million)



- Figure 2.159: Global Small Cell Backhaul Revenue by Technology: 2017 2030 (\$ Million)
- Figure 2.160: Global DSL Small Cell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.161: Global Ethernet Small Cell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.162: Global Microwave Small Cell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.163: Global Millimeter Wave Small Cell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.164: Global Satellite Small Cell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.165: Global Fiber & Other Technologies Small Cell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.166: Global Carrier Wi-Fi Revenue: 2017 2030 (\$ Million)
- Figure 2.167: Global Carrier Wi-Fi Revenue by Submarket: 2017 2030 (\$ Million)
- Figure 2.168: Global Carrier Wi-Fi Access Point Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.169: Global Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.170: Global Carrier Wi-Fi Access Point Controller Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.171: Global Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.172: Global Carrier Wi-Fi Access Point Unit Shipments by Integration
- Approach: 2017 2030 (Thousands of Units)
- Figure 2.173: Global Carrier Wi-Fi Access Point Unit Shipment Revenue by Integration Approach: 2017 2030 (\$ Million)
- Figure 2.174: Global Standalone Carrier Wi-Fi Hotspot Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.175: Global Standalone Carrier Wi-Fi Hotspot Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.176: Global Managed Carrier Wi-Fi Offload Hotspot Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.177: Global Managed Carrier Wi-Fi Offload Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.178: Global C-RAN Revenue: 2017 2030 (\$ Million)
- Figure 2.179: Global C-RAN Revenue by Submarket: 2017 2030 (\$ Million)
- Figure 2.180: Global RRH Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.181: Global RRH Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.182: Global C-RAN BBU Shipments: 2017 2030 (Thousands of Units)
- Figure 2.183: Global C-RAN BBU Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.184: Global C-RAN Revenue by Air Interface Technology: 2017 2030 (\$



Million)

Figure 2.185: Global RRH Unit Shipments by Air Interface Technology: 2017 – 2030 (Thousands of Units)

Figure 2.186: Global RRH Unit Shipment Revenue by Air Interface Technology: 2017 – 2030 (\$ Million)

Figure 2.187: Global C-RAN BBU Shipments by Air Interface Technology: 2017 – 2030 (Thousands of Units)

Figure 2.188: Global C-RAN BBU Shipment Revenue by Air Interface Technology: 2017 – 2030 (\$ Million)

Figure 2.189: Global C-RAN Revenue in 3G & LTE Networks: 2017 – 2030 (\$ Million)

Figure 2.190: Global 3G & LTE RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.191: Global 3G & LTE RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.192: Global 3G & LTE C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.193: Global 3G & LTE C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.194: Global C-RAN Revenue in 5G NR Networks: 2019 – 2030 (\$ Million)

Figure 2.195: Global 5G NR RRH Unit Shipments: 2019 – 2030 (Thousands of Units)

Figure 2.196: Global 5G NR RRH Unit Shipment Revenue: 2019 – 2030 (\$ Million)

Figure 2.197: Global 5G NR C-RAN BBU Shipments: 2019 – 2030 (Thousands of Units)

Figure 2.198: Global 5G NR C-RAN BBU Shipment Revenue: 2019 – 2030 (\$ Million)

Figure 2.199: Global RRH Unit Shipments by Deployment Model: 2017 – 2030 (Thousands of Units)

Figure 2.200: Global RRH Unit Shipment Revenue by Deployment Model: 2017 – 2030 (\$ Million)

Figure 2.201: Global Indoor RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.202: Global Indoor RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.203: Global Outdoor RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.204: Global Outdoor RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.205: Global RRH Unit Shipments by Cell Size: 2017 – 2030 (Thousands of Units)

Figure 2.206: Global RRH Unit Shipment Revenue by Cell Size: 2017 – 2030 (\$ Million)

Figure 2.207: Global Small Cell RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.208: Global Small Cell RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.209: Global Macrocell RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.210: Global Macrocell RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.211: Global C-RAN Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.212: Global C-RAN Fronthaul Revenue by Technology: 2017 – 2030 (\$ Million)

Figure 2.213: Global Dedicated Fiber Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.214: Global WDM Fronthaul Revenue: 2017 – 2030 (\$ Million)



- Figure 2.215: Global OTN & PON Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 2.216: Global Ethernet Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 2.217: Global Microwave Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 2.218: Global Millimeter Wave Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 2.219: Global G.Fast & Other Technologies Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 2.220: Global DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.221: Global DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.222: Global DAS Node Unit Shipments by Deployment Model: 2017 2030 (Thousands of Units)
- Figure 2.223: Global DAS Node Unit Shipment Revenue by Deployment Model: 2017 2030 (\$ Million)
- Figure 2.224: Global Indoor DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.225: Global Indoor DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.226: Global Outdoor DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.227: Global Outdoor DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.228: Wireless Network Infrastructure Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.229: Standalone Macrocell Base Station Shipments by Region: 2017 2030 (Thousands of Units)
- Figure 2.230: Standalone Macrocell Base Station Shipment Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.231: 2G & 3G Macrocell BSC Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.232: Mobile Core Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.233: Macrocell Backhaul Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.234: Small Cell Unit Shipments by Region: 2017 2030 (Thousands of Units)
- Figure 2.235: Small Cell Unit Shipment Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.236: Small Cell Backhaul Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.237: Carrier Wi-Fi Access Point Unit Shipments by Region: 2017 2030 (Thousands of Units)
- Figure 2.238: Carrier Wi-Fi Access Point Unit Shipment Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.239: Carrier Wi-Fi Access Point Controller Unit Shipments by Region: 2017 2030 (Thousands of Units)
- Figure 2.240: Carrier Wi-Fi Access Point Controller Unit Shipment Revenue by Region: 2017 2030 (\$ Million)



- Figure 2.241: RRH Unit Shipments by Region: 2017 2030 (Thousands of Units)
- Figure 2.242: RRH Shipment Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.243: C-RAN BBU Shipments by Region: 2017 2030 (Thousands of Units)
- Figure 2.244: C-RAN BBU Shipment Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.245: C-RAN Fronthaul Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.246: DAS Node Unit Shipments by Region: 2017 2030 (Thousands of Units)
- Figure 2.247: DAS Node Unit Shipment Revenue by Region: 2017 2030 (\$ Million)
- Figure 2.248: Asia Pacific Wireless Network Infrastructure Revenue: 2017 2030 (\$ Million)
- Figure 2.249: Asia Pacific Standalone Macrocell Base Station Shipments: 2017 2030 (Thousands of Units)
- Figure 2.250: Asia Pacific Standalone Macrocell Base Station Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.251: Asia Pacific 2G & 3G Macrocell BSC Revenue: 2017 2030 (\$ Million)
- Figure 2.252: Asia Pacific Mobile Core Revenue: 2017 2030 (\$ Million)
- Figure 2.253: Asia Pacific Macrocell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.254: Asia Pacific Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.255: Asia Pacific Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.256: Asia Pacific Small Cell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.257: Asia Pacific Carrier Wi-Fi Access Point Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.258: Asia Pacific Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.259: Asia Pacific Carrier Wi-Fi Access Point Controller Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.260: Asia Pacific Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.261: Asia Pacific RRH Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.262: Asia Pacific RRH Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.263: Asia Pacific C-RAN BBU Shipments: 2017 2030 (Thousands of Units)
- Figure 2.264: Asia Pacific C-RAN BBU Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.265: Asia Pacific C-RAN Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 2.266: Asia Pacific DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.267: Asia Pacific DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.268: Eastern Europe Wireless Network Infrastructure Revenue: 2017 2030 (\$ Million)
- Figure 2.269: Eastern Europe Standalone Macrocell Base Station Shipments: 2017 2030 (Thousands of Units)



- Figure 2.270: Eastern Europe Standalone Macrocell Base Station Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.271: Eastern Europe 2G & 3G Macrocell BSC Revenue: 2017 2030 (\$ Million)
- Figure 2.272: Eastern Europe Mobile Core Revenue: 2017 2030 (\$ Million)
- Figure 2.273: Eastern Europe Macrocell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.274: Eastern Europe Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.275: Eastern Europe Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.276: Eastern Europe Small Cell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 2.277: Eastern Europe Carrier Wi-Fi Access Point Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.278: Eastern Europe Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.279: Eastern Europe Carrier Wi-Fi Access Point Controller Unit Shipments:
- 2017 2030 (Thousands of Units)
- Figure 2.280: Eastern Europe Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.281: Eastern Europe RRH Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.282: Eastern Europe RRH Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.283: Eastern Europe C-RAN BBU Shipments: 2017 2030 (Thousands of Units)
- Figure 2.284: Eastern Europe C-RAN BBU Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.285: Eastern Europe C-RAN Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 2.286: Eastern Europe DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 2.287: Eastern Europe DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.288: Latin & Central America Wireless Network Infrastructure Revenue: 2017 2030 (\$ Million)
- Figure 2.289: Latin & Central America Standalone Macrocell Base Station Shipments: 2017 2030 (Thousands of Units)
- Figure 2.290: Latin & Central America Standalone Macrocell Base Station Shipment Revenue: 2017 2030 (\$ Million)
- Figure 2.291: Latin & Central America 2G & 3G Macrocell BSC Revenue: 2017 2030 (\$ Million)
- Figure 2.292: Latin & Central America Mobile Core Revenue: 2017 2030 (\$ Million)
- Figure 2.293: Latin & Central America Macrocell Backhaul Revenue: 2017 2030 (\$



Million)

Figure 2.294: Latin & Central America Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.295: Latin & Central America Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.296: Latin & Central America Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.297: Latin & Central America Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.298: Latin & Central America Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.299: Latin & Central America Carrier Wi-Fi Access Point Controller Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.300: Latin & Central America Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.301: Latin & Central America RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.302: Latin & Central America RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.303: Latin & Central America C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.304: Latin & Central America C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.305: Latin & Central America C-RAN Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.306: Latin & Central America DAS Node Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.307: Latin & Central America DAS Node Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.308: Middle East & Africa Wireless Network Infrastructure Revenue: 2017 – 2030 (\$ Million)

Figure 2.309: Middle East & Africa Standalone Macrocell Base Station Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.310: Middle East & Africa Standalone Macrocell Base Station Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.311: Middle East & Africa 2G & 3G Macrocell BSC Revenue: 2017 – 2030 (\$ Million)

Figure 2.312: Middle East & Africa Mobile Core Revenue: 2017 – 2030 (\$ Million)

Figure 2.313: Middle East & Africa Macrocell Backhaul Revenue: 2017 – 2030 (\$



Million)

Figure 2.314: Middle East & Africa Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.315: Middle East & Africa Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.316: Middle East & Africa Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.317: Middle East & Africa Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.318: Middle East & Africa Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.319: Middle East & Africa Carrier Wi-Fi Access Point Controller Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.320: Middle East & Africa Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.321: Middle East & Africa RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.322: Middle East & Africa RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.323: Middle East & Africa C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.324: Middle East & Africa C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.325: Middle East & Africa C-RAN Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.326: Middle East & Africa DAS Node Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.327: Middle East & Africa DAS Node Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.328: North America Wireless Network Infrastructure Revenue: 2017 – 2030 (\$ Million)

Figure 2.329: North America Standalone Macrocell Base Station Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.330: North America Standalone Macrocell Base Station Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.331: North America 2G & 3G Macrocell BSC Revenue: 2017 – 2030 (\$ Million)

Figure 2.332: North America Mobile Core Revenue: 2017 – 2030 (\$ Million)

Figure 2.333: North America Macrocell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.334: North America Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)



Figure 2.335: North America Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.336: North America Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.337: North America Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.338: North America Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.339: North America Carrier Wi-Fi Access Point Controller Unit Shipments:

2017 – 2030 (Thousands of Units)

Figure 2.340: North America Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.341: North America RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.342: North America RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.343: North America C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.344: North America C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.345: North America C-RAN Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.346: North America DAS Node Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.347: North America DAS Node Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.348: Western Europe Wireless Network Infrastructure Revenue: 2017 – 2030 (\$ Million)

Figure 2.349: Western Europe Standalone Macrocell Base Station Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.350: Western Europe Standalone Macrocell Base Station Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.351: Western Europe 2G & 3G Macrocell BSC Revenue: 2017 – 2030 (\$ Million)

Figure 2.352: Western Europe Mobile Core Revenue: 2017 – 2030 (\$ Million)

Figure 2.353: Western Europe Macrocell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.354: Western Europe Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.355: Western Europe Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.356: Western Europe Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.357: Western Europe Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.358: Western Europe Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.359: Western Europe Carrier Wi-Fi Access Point Controller Unit Shipments:



2017 – 2030 (Thousands of Units)

Figure 2.360: Western Europe Carrier Wi-Fi Access Point Controller Unit Shipment

Revenue: 2017 – 2030 (\$ Million)

Figure 2.361: Western Europe RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 2.362: Western Europe RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.363: Western Europe C-RAN BBU Shipments: 2017 – 2030 (Thousands of

Units)

Figure 2.364: Western Europe C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 2.365: Western Europe C-RAN Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 2.366: Western Europe DAS Node Unit Shipments: 2017 – 2030 (Thousands of

Units)

Figure 2.367: Western Europe DAS Node Unit Shipment Revenue: 2017 – 2030 (\$

Million)

Figure 2.368: Baseband Functional Split Options for C-RAN

Figure 2.369: Global Enterprise RAN Investments: 2017 – 2030 (\$ Million)

Figure 2.370: SWOT Analysis of the Wireless Network Infrastructure Market

Figure 3.1: HetNet Architecture

Figure 3.2: Small Cell Coverage Range Comparison

Figure 3.3: Key Characteristics of Small Cells

Figure 3.4: Mobile Network Data Offloading via Wi-Fi

Figure 3.5: C-RAN Architecture

Figure 3.6: Key RRH & BBU Functions

Figure 3.7: Cloud RAN Concept

Figure 3.8: Passive DAS Configuration

Figure 3.9: Active DAS Configuration

Figure 3.10: Hybrid DAS Configuration

Figure 3.11: Annual Global Throughput of Mobile Network Data Traffic by Region: 2017

2030 (Exabytes)

Figure 3.12: Annual Global Throughput of Mobile Network Data Traffic by Access

Network Technology: 2017 – 2030 (Exabytes)

Figure 3.13: luh-Based Small Cell Integration in a 3G Mobile Network

Figure 3.14: lub-Based Small Cell Integration in a 3G Mobile Network

Figure 3.15: S1 Interface-Based Small Cell Integration in an LTE Network

Figure 3.16: High Level View for NextGen System Architecture

Figure 3.17: CPRI Protocol Layers

Figure 3.18: Global SON Technology Revenue: 2017 – 2030 (\$ Million)

Figure 3.19: RAN Functional Split Options

Figure 3.20: Performance Comparison of RAN Functional Split Options

Figure 3.21: vRAN Architecture



Figure 3.22: Virtualized Small Cell Deployment Model

Figure 3.23: TCO Comparison Between Conventional and Virtualized Small Cells (\$ per GB)

Figure 3.24: Global Small Cell Unit Shipments by Virtualization: 2017 – 2030

(Thousands of Units)

Figure 3.25: LSA (License Shared Access) Regulatory Architecture

Figure 3.26: Transition to UDNs (Ultra-Dense Networks)

Figure 3.27: 5G FWA (Fixed Wireless Access) Deployment Alternatives

Figure 3.28: Conceptual Architecture for End-to-End Network Slicing in Mobile Networks

Figure 3.29: HetNet Industry Roadmap: 2017 – 2030

Figure 3.30: HetNet Value Chain

Figure 3.31: SCaaS (Small Cells-as-a-Service) Provider and Mobile Operator

Responsibilities

Figure 3.32: Global SCaaS Revenue: 2017 – 2030 (\$ Million)

Figure 3.33: ETSI NFV Architecture

Figure 3.34: 803.11 Family of Standards by Frequency and Range

Figure 3.35: Comparison of IMT-2020 and IMT-Advanced Performance Requirements

Figure 3.36: M-CORD Focus Areas

Figure 3.37: Small Cell Forum's Release Publication Process

Figure 3.38: nFAPI Interfaces

Figure 3.39: China Mobile's Cloud RAN Vision

Figure 3.40: NTT DoCoMo's Advanced C-RAN Architecture

Figure 3.41: SK Telecom's SDRAN (Software Defined RAN) Architecture

Figure 3.42: SoftBank's Virtualized Small Cell Trial

Figure 3.43: Sprint's LTE UE Relay

Figure 3.44: Global HetNet Infrastructure Revenue by Submarket: 2017 – 2030 (\$ Million)

Figure 3.45: Global Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.46: Global Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.47: Global Small Cell Unit Shipments by Use Case: 2017 – 2030 (Thousands of Units)

Figure 3.48: Global Small Cell Unit Shipment Revenue by Use Case: 2017 – 2030 (\$ Million)

Figure 3.49: Global Residential Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.50: Global Residential Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.51: Global Enterprise Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)



- Figure 3.52: Global Enterprise Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.53: Global Urban Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.54: Global Urban Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.55: Global Rural & Suburban Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.56: Global Rural & Suburban Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.57: Global Small Cell Unit Shipments by Form Factor: 2017 2030 (Thousands of Units)
- Figure 3.58: Global Small Cell Unit Shipment Revenue by Form Factor: 2017 2030 (\$ Million)
- Figure 3.59: Global Femtocell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.60: Global Femtocell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.61: Global Picocell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.62: Global Picocell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.63: Global Microcell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.64: Global Microcell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.65: Global Small Cell Unit Shipments by Air Interface Technology: 2017 2030 (Thousands of Units)
- Figure 3.66: Global Small Cell Unit Shipment Revenue by Air Interface Technology: 2017 2030 (\$ Million)
- Figure 3.67: Global 2G & 3G Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.68: Global 2G & 3G Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.69: Global LTE Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.70: Global LTE Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.71: Global 5G NR Small Cell Unit Shipments: 2019 2030 (Thousands of Units)
- Figure 3.72: Global 5G NR Small Cell Unit Shipment Revenue: 2019 2030 (\$ Million)
- Figure 3.73: Global Small Cell Unit Shipments by Deployment Model: 2017 2030 (Thousands of Units)
- Figure 3.74: Global Small Cell Unit Shipment Revenue by Deployment Model: 2017 2030 (\$ Million)
- Figure 3.75: Global Indoor Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.76: Global Indoor Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.77: Global Outdoor Small Cell Unit Shipments: 2017 2030 (Thousands of Units)



Figure 3.78: Global Outdoor Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.79: Global Small Cell Unit Shipments by RAN Architecture: 2017 – 2030 (Thousands of Units)

Figure 3.80: Global Small Cell Unit Shipment Revenue by RAN Architecture: 2017 – 2030 (\$ Million)

Figure 3.81: Global Standalone Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.82: Global Standalone Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.83: Global C-RAN Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.84: Global C-RAN Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.85: Global Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.86: Global Small Cell Backhaul Revenue by Technology: 2017 – 2030 (\$ Million)

Figure 3.87: Global DSL Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.88: Global Ethernet Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.89: Global Microwave Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.90: Global Millimeter Wave Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.91: Global Satellite Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.92: Global Fiber & Other Technologies Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.93: Global Carrier Wi-Fi Revenue: 2017 – 2030 (\$ Million)

Figure 3.94: Global Carrier Wi-Fi Revenue by Submarket: 2017 – 2030 (\$ Million)

Figure 3.95: Global Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.96: Global Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.97: Global Carrier Wi-Fi Access Point Controller Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.98: Global Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.99: Global Carrier Wi-Fi Access Point Unit Shipments by Integration Approach: 2017 – 2030 (Thousands of Units)

Figure 3.100: Global Carrier Wi-Fi Access Point Unit Shipment Revenue by Integration Approach: 2017 – 2030 (\$ Million)

Figure 3.101: Global Standalone Carrier Wi-Fi Hotspot Unit Shipments: 2017 – 2030 (Thousands of Units)



Figure 3.102: Global Standalone Carrier Wi-Fi Hotspot Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.103: Global Managed Carrier Wi-Fi Offload Hotspot Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.104: Global Managed Carrier Wi-Fi Offload Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.105: Global C-RAN Revenue: 2017 – 2030 (\$ Million)

Figure 3.106: Global C-RAN Revenue by Submarket: 2017 – 2030 (\$ Million)

Figure 3.107: Global RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.108: Global RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.109: Global C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.110: Global C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.111: Global C-RAN Revenue by Air Interface Technology: 2017 – 2030 (\$ Million)

Figure 3.112: Global RRH Unit Shipments by Air Interface Technology: 2017 – 2030 (Thousands of Units)

Figure 3.113: Global RRH Unit Shipment Revenue by Air Interface Technology: 2017 – 2030 (\$ Million)

Figure 3.114: Global C-RAN BBU Shipments by Air Interface Technology: 2017 – 2030 (Thousands of Units)

Figure 3.115: Global C-RAN BBU Shipment Revenue by Air Interface Technology: 2017 – 2030 (\$ Million)

Figure 3.116: Global C-RAN Revenue in 3G & LTE Networks: 2017 – 2030 (\$ Million)

Figure 3.117: Global 3G & LTE RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.118: Global 3G & LTE RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.119: Global 3G & LTE C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.120: Global 3G & LTE C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.121: Global C-RAN Revenue in 5G NR Networks: 2019 – 2030 (\$ Million)

Figure 3.122: Global 5G NR RRH Unit Shipments: 2019 – 2030 (Thousands of Units)

Figure 3.123: Global 5G NR RRH Unit Shipment Revenue: 2019 – 2030 (\$ Million)

Figure 3.124: Global 5G NR C-RAN BBU Shipments: 2019 – 2030 (Thousands of Units)

Figure 3.125: Global 5G NR C-RAN BBU Shipment Revenue: 2019 – 2030 (\$ Million)

Figure 3.126: Global RRH Unit Shipments by Deployment Model: 2017 – 2030 (Thousands of Units)

Figure 3.127: Global RRH Unit Shipment Revenue by Deployment Model: 2017 – 2030 (\$ Million)

Figure 3.128: Global Indoor RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.129: Global Indoor RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)



- Figure 3.130: Global Outdoor RRH Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.131: Global Outdoor RRH Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.132: Global RRH Unit Shipments by Cell Size: 2017 2030 (Thousands of Units)
- Figure 3.133: Global RRH Unit Shipment Revenue by Cell Size: 2017 2030 (\$ Million)
- Figure 3.134: Global Small Cell RRH Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.135: Global Small Cell RRH Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.136: Global Macrocell RRH Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.137: Global Macrocell RRH Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.138: Global C-RAN Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.139: Global C-RAN Fronthaul Revenue by Technology: 2017 2030 (\$ Million)
- Figure 3.140: Global Dedicated Fiber Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.141: Global WDM Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.142: Global OTN & PON Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.143: Global Ethernet Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.144: Global Microwave Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.145: Global Millimeter Wave Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.146: Global G.Fast & Other Technologies Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.147: Global DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.148: Global DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.149: Global DAS Node Unit Shipments by Deployment Model: 2017 2030 (Thousands of Units)
- Figure 3.150: Global DAS Node Unit Shipment Revenue by Deployment Model: 2017 2030 (\$ Million)
- Figure 3.151: Global Indoor DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.152: Global Indoor DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.153: Global Outdoor DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.154: Global Outdoor DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.155: HetNet Infrastructure Revenue by Region: 2017 2030 (\$ Million)
- Figure 3.156: Small Cell Unit Shipments by Region: 2017 2030 (Thousands of Units)
- Figure 3.157: Small Cell Unit Shipment Revenue by Region: 2017 2030 (\$ Million)
- Figure 3.158: Small Cell Backhaul Revenue by Region: 2017 2030 (\$ Million)
- Figure 3.159: Carrier Wi-Fi Access Point Unit Shipments by Region: 2017 2030 (Thousands of Units)
- Figure 3.160: Carrier Wi-Fi Access Point Unit Shipment Revenue by Region: 2017 –



2030 (\$ Million)

Figure 3.161: Carrier Wi-Fi Access Point Controller Unit Shipments by Region: 2017 – 2030 (Thousands of Units)

Figure 3.162: Carrier Wi-Fi Access Point Controller Unit Shipment Revenue by Region: 2017 – 2030 (\$ Million)

Figure 3.163: RRH Unit Shipments by Region: 2017 – 2030 (Thousands of Units)

Figure 3.164: RRH Unit Shipment Revenue by Region: 2017 – 2030 (\$ Million)

Figure 3.165: C-RAN BBU Shipments by Region: 2017 – 2030 (Thousands of Units)

Figure 3.166: C-RAN BBU Shipment Revenue by Region: 2017 – 2030 (\$ Million)

Figure 3.167: C-RAN Fronthaul Revenue by Region: 2017 – 2030 (\$ Million)

Figure 3.168: DAS Node Unit Shipments by Region: 2017 – 2030 (Thousands of Units)

Figure 3.169: DAS Node Unit Shipment Revenue by Region: 2017 – 2030 (\$ Million)

Figure 3.170: Asia Pacific HetNet Infrastructure Revenue: 2017 – 2030 (\$ Million)

Figure 3.171: Asia Pacific Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.172: Asia Pacific Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.173: Asia Pacific Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.174: Asia Pacific Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.175: Asia Pacific Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.176: Asia Pacific Carrier Wi-Fi Access Point Controller Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.177: Asia Pacific Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.178: Asia Pacific RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.179: Asia Pacific RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.180: Asia Pacific C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.181: Asia Pacific C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.182: Asia Pacific C-RAN Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.183: Asia Pacific DAS Node Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.184: Asia Pacific DAS Node Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.185: Eastern Europe HetNet Infrastructure Revenue: 2017 – 2030 (\$ Million)

Figure 3.186: Eastern Europe Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.187: Eastern Europe Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.188: Eastern Europe Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.189: Eastern Europe Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030



(Thousands of Units)

Figure 3.190: Eastern Europe Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.191: Eastern Europe Carrier Wi-Fi Access Point Controller Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.192: Eastern Europe Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.193: Eastern Europe RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.194: Eastern Europe RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.195: Eastern Europe C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.196: Eastern Europe C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.197: Eastern Europe C-RAN Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.198: Eastern Europe DAS Node Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.199: Eastern Europe DAS Node Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.200: Latin & Central America HetNet Infrastructure Revenue: 2017 – 2030 (\$ Million)

Figure 3.201: Latin & Central America Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.202: Latin & Central America Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.203: Latin & Central America Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.204: Latin & Central America Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.205: Latin & Central America Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.206: Latin & Central America Carrier Wi-Fi Access Point Controller Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.207: Latin & Central America Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.208: Latin & Central America RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.209: Latin & Central America RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.210: Latin & Central America C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)



- Figure 3.211: Latin & Central America C-RAN BBU Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.212: Latin & Central America C-RAN Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.213: Latin & Central America DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.214: Latin & Central America DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.215: Middle East & Africa HetNet Infrastructure Revenue: 2017 2030 (\$ Million)
- Figure 3.216: Middle East & Africa Small Cell Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.217: Middle East & Africa Small Cell Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.218: Middle East & Africa Small Cell Backhaul Revenue: 2017 2030 (\$ Million)
- Figure 3.219: Middle East & Africa Carrier Wi-Fi Access Point Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.220: Middle East & Africa Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.221: Middle East & Africa Carrier Wi-Fi Access Point Controller Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.222: Middle East & Africa Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.223: Middle East & Africa RRH Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.224: Middle East & Africa RRH Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.225: Middle East & Africa C-RAN BBU Shipments: 2017 2030 (Thousands of Units)
- Figure 3.226: Middle East & Africa C-RAN BBU Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.227: Middle East & Africa C-RAN Fronthaul Revenue: 2017 2030 (\$ Million)
- Figure 3.228: Middle East & Africa DAS Node Unit Shipments: 2017 2030 (Thousands of Units)
- Figure 3.229: Middle East & Africa DAS Node Unit Shipment Revenue: 2017 2030 (\$ Million)
- Figure 3.230: North America HetNet Infrastructure Revenue: 2017 2030 (\$ Million)
- Figure 3.231: North America Small Cell Unit Shipments: 2017 2030 (Thousands of



Units)

Figure 3.232: North America Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.233: North America Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.234: North America Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.235: North America Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.236: North America Carrier Wi-Fi Access Point Controller Unit Shipments:

2017 – 2030 (Thousands of Units)

Figure 3.237: North America Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.238: North America RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.239: North America RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.240: North America C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.241: North America C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.242: North America C-RAN Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.243: North America DAS Node Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.244: North America DAS Node Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.245: Western Europe HetNet Infrastructure Revenue: 2017 – 2030 (\$ Million)

Figure 3.246: Western Europe Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.247: Western Europe Small Cell Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.248: Western Europe Small Cell Backhaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.249: Western Europe Carrier Wi-Fi Access Point Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.250: Western Europe Carrier Wi-Fi Access Point Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.251: Western Europe Carrier Wi-Fi Access Point Controller Unit Shipments:

2017 – 2030 (Thousands of Units)

Figure 3.252: Western Europe Carrier Wi-Fi Access Point Controller Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.253: Western Europe RRH Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.254: Western Europe RRH Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.255: Western Europe C-RAN BBU Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.256: Western Europe C-RAN BBU Shipment Revenue: 2017 – 2030 (\$ Million)



Figure 3.257: Western Europe C-RAN Fronthaul Revenue: 2017 – 2030 (\$ Million)

Figure 3.258: Western Europe DAS Node Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.259: Western Europe DAS Node Unit Shipment Revenue: 2017 – 2030 (\$ Million)

Figure 3.260: Global Unlicensed & Shared Spectrum Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.261: Global Unlicensed & Shared Spectrum Small Cell Unit Shipment

Revenue: 2017 – 2030 (\$ Million)

Figure 3.262: Global Virtualized Small Cell Revenue by Submarket: 2017 – 2030 (\$ Million)

Figure 3.263: Baseband Processing Distribution Options for C-RAN

Figure 3.264: Global Military, Tactical & Public Safety LTE Small Cell Unit Shipments:

2017 – 2030 (Thousands of Units)

Figure 3.265: Global Military, Tactical & Public Safety LTE Small Cell Unit Shipment

Revenue: 2017 – 2030 (\$ Million)

Figure 3.266: Global Dual-Mode Cellular/Wi-Fi Small Cell Unit Shipments: 2017 – 2030 (Thousands of Units)

Figure 3.267: Global Enterprise RAN Investments: 2017 – 2030 (\$ Million)

Figure 3.268: Global Small Cell Market Share by Vendor: 2016 (%)

Figure 3.269: Global Carrier Wi-Fi Market Share by Vendor: 2016 (%)

Figure 3.270: Global C-RAN Market Share by Vendor: 2016 (%)

Figure 3.271: Global DAS Market Share by Vendor: 2016 (%)



I would like to order

Product name: The NFV, SDN & Wireless Network Infrastructure Market: 2017 - 2030 - Opportunities,

Challenges, Strategies and Forecasts

Product link: https://marketpublishers.com/r/NB2DCD8D810EN.html

Price: US\$ 4,000.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

First name

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/NB2DCD8D810EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

| Last name: | |
|---------------|---------------------------|
| Email: | |
| Company: | |
| Address: | |
| City: | |
| Zip code: | |
| Country: | |
| Tel: | |
| Fax: | |
| Your message: | |
| | |
| | |
| | |
| | **All fields are required |
| | Custumer signature |
| | |

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

