Carrier WiFi and Small Cells in LTE and Beyond: Market Opportunities and Forecasts 2015 - 2020

Description:
Mobile network operator “Heterogeneous Networks” (HetNet) are based on a combination of small cells, macro cells and carrier WiFi. HetNets are expected to play a pivotal role in addressing network capacity needs, bring about improvements in carrier operations, and create opportunities for new revenue streams.

This research provides an in-depth assessment of the carrier WiFi and small cells market, including business models, market drivers, challenges, value chain analysis, operator and vendor strategies, and a quantitative assessment of the industry with detailed forecasts for 2015 to 2020. The report includes analysis of business drivers, business case, and provides strategy assessment for implementation and operation.

The report covers the following topics:
- Business Case for Carrier WiFi and Small Cells: An assessment of the business case for Carrier WiFi and small cells.
- Technology Review: A review of the underlying technology supporting Carrier WiFi and small cell solutions
- A Review of Carrier WiFi and Small Cell Deployments: A review of major Carrier WiFi and small cell solution deployments by Carriers worldwide
- Carrier and Vendor Strategies: An analysis of how Carriers and vendors will position themselves to capitalize on Carrier WiFi and small cell opportunity
- Market Analysis and Forecasts: A global and regional assessment of the market size (unit shipments and revenues) and forecasts for the Carrier WiFi and small cells market from 2015 to 2020
- Industry Value Chain: An analysis of the Carrier WiFi and small cells value chain with indicative revenue assessments of key market players across the value chain and predictions about the economic model evolution
- Carrier WiFi and Small Cells Industry Roadmap 2015 - 2020: An analysis of the roadmap for the industry from 2015 to 2020

This report is a must-read for anyone evaluating the potential for carrier WiFi and small cells in terms of revenue opportunities for infrastructure and service (including Cloud-based) vendors, network operator strategies, revenue opportunities, and the future of carrier networks.

Questions answered in the report include:
- How is the industry’s value chain structured?
- What is future of Carrier WiFi and Small Cells?
- How many LTE enabled small cells will ship in 2020?
- What are the key strategies to develop for carrier WiFi operation?
- How much will the Carrier WiFi and small cell markets be worth in 2020?
- What are Carrier’s attitudes towards Carrier WiFi and small cell solutions?
- What benefits do small cells and Carrier WiFi deployments bring to Carriers?
- What is Cloud RAN and how will cloud RAN deployments affect the small cell industry?
- The much CAPEX can Carriers save by deploying Carrier WiFi and small cell solutions?
- What will be the regional outlook for revenue in the Carrier WiFi and small cells market?
- Which vendors are leading the market and what key strategies for vendors capitalizing on?

All purchases of this report includes time with an expert analyst who will help you link key findings in the report to the business issues you’re addressing. This needs to be used within three months of purchasing the report.

Target Audience:
- Investment Firms
- Application Developers
- Mobile Device Vendors
- Mobile Network Carriers
Service Bureau Companies
- WiFi Infrastructure Vendors
- Wireless Infrastructure Vendors
- Small Cell Infrastructure Vendors
- Telecom Managed Service Providers

Contents:
1 Introduction
1.1 Executive Summary
1.2 Topics Covered
1.3 Key Findings
1.4 Key Questions Answered
1.5 Target Audience
1.6 Companies Mentioned

2 Carrier WiFi and Small Cell Technology
2.1 Evolution towards Heterogeneous Networks
2.2 Carrier WiFi
2.2.1 Open Access vs. Mobile Data Offload Carrier WiFi
2.2.2 Convergence with Small Cell Solutions
2.3 Small Cells
2.3.1 Femtocells
2.3.2 Picocells
2.3.3 Microcells
2.3.4 Metrocells
2.4 Convergent Small Cell Architecture
2.5 Small Cell Deployment Scenarios
2.5.1 Home/Residential Deployments:
2.5.2 Enterprise Deployments:
2.5.3 Metro and Public Space Deployments:
2.5.4 Rural Deployments:
2.6 Carrier WiFi and Small Cell Standardization
2.6.1 The Small Cell Forum
2.6.2 Hotspot 2.0 Task Group
2.6.3 Next Generation Hotspot

3 Business Case for the Carrier WiFi and Small Cells
3.1 Key Market Drivers
3.1.1 The Increasing Demand for Mobile Broadband
3.1.2 CapEX and OpEX Reduction
3.1.3 Licensed RF frequencies
3.1.4 Support for Various Wireless Technologies/Environments
3.1.5 Higher Throughput per Cell
3.1.6 Quality of Service
3.1.7 Energy Savings: Towards a Greener Network Environment
3.1.8 New Application and Service Opportunities
3.1.9 Small Cell Targeted Advertising
3.2 Market Barriers and Challenges
3.2.1 Coverage and Performance Uncertainty
3.2.2 Security Considerations
3.2.3 Interference Management
3.2.4 Mobility Management
3.2.5 Self-Organization
3.2.6 Backhaul Challenges
3.2.7 Alternative Solutions
3.3 Carrier WiFi and Small Cells Value Chain
3.4 Carrier WiFi and Small Cell Industry Roadmap 2015 - 2020
3.4.1 2010 - 2012: Commercialization of Femtocells
3.4.2 2013 - 2014: Managed WiFi Data Offloading
3.4.3 2015 - 2020: The HetNets Era - Large Scale Integration of Macrocells, Cloud RAN Small Cells and Carrier WiFi
3.5 Carrier WiFi and Small Cells in LTE and Beyond: Key Trends
3.5.1 Integration of DAS
3.5.2 Small Cells as a Service (SCaaS) and Femtocells as a Service (FaaS)
3.5.3 Self-Organizing Networks (SON)
3.5.4 Cloud RAN and its Impact on the Small Cell Industry
3.5.5 Proliferation of WiFi Technology in Small Cells

4 Major Carrier WiFi and Small Cell Deployments
4.1 AT&T Mobility
4.2 Eircom
4.3 KDDI
4.4 Korea Telecom
4.5 SK Telecom
4.6 Optus Australia
4.7 SFR France
4.8 Sprint
4.9 Reliance Communications
4.10 Softbank Japan
4.11 NTT DoCoMo
4.12 SingTel
4.13 Telefonica O2 UK
4.14 T-Mobile
4.15 Tim Brasil
4.16 U.S Cellular
4.17 Verizon Wireless
4.18 Vodafone
4.19 China Mobile
4.20 Comcast
4.21 Zain Bahrain
4.22 Zain Saudi Arabia
4.23 Middle East

5 Vendor Landscape
5.1 Vendor Ranking Matrix
5.2 Vendor Product Portfolio and Strategy
5.2.1 ADTRAN
5.2.2 Argela
5.2.3 Airvana
5.2.4 Airspan Networks
5.2.5 Aptilo Networks
5.2.6 Arcadyan Technology Corporation
5.2.7 Aruba Networks
5.2.8 Alcatel-Lucent
5.2.9 Aviat Networks
5.2.10 Cavium
5.2.11 Cisco
5.2.12 Contela
5.2.13 Devicescape
5.2.14 Ericsson
5.2.15 Huawei
5.2.16 ip.access
5.2.17 Juniper Networks
5.2.18 Kineto Wireless
5.2.19 Motorola Solutions
5.2.20 NEC
5.2.21 Nokia Siemens Networks
5.2.22 Radisys
5.2.23 Ruckus Wireless
5.2.24 Samsung
5.2.25 Ubee-AirWalk
5.2.26 Ubiquisys

6 Strategies for Deployment and Operations
6.1 Network Planning and Dimensioning
6.2 Small Cell AP Type
6.3 Interference Management
6.4 Auto-configuration and SON
6.5 Carrier Aggregation
6.6 Seamless Mobility
6.7 Authentication and Security
6.8 Backhaul Solutions
6.9 Upgradability
6.10 Target Site Selection
6.11 Requirements Specification and Procurement
6.12 CapEx, OpEx, and TCO

7 Market Analysis & Forecasts
7.1 Global Carrier WiFi Market: 2015 - 2020
7.1.1 Global Carrier WiFi Unit Shipments and Revenue: 2015 - 2020
7.1.2 Global Carrier WiFi Access Point and Controller Unit Shipments: 2015 - 2020
7.1.3 WiFi Offload vs. Standard WiFi Access Points: 2015 - 2020
7.1.4 Regional Outlook of the Market: 2015 - 2020
7.2 Carrier WiFi Unit Shipments and Revenues by Region: 2015 - 2020
7.2.1 Asia Pacific
7.2.2 Eastern Europe
7.2.3 Latin & Central America
7.2.4 Middle East & Africa
7.2.5 North America
7.2.6 Western Europe
7.3 Global Small Cell Market: 2015 - 2020
7.3.1 Global Small Cell Unit Shipments and Revenue: 2015 - 2020
7.3.2 Global Small Cell Unit Shipments and Revenue by Cell Type: 2015 - 2020
7.3.3 Global Femtocell Unit Shipments and Revenue: 2015 - 2020
7.3.4 Global Picocell Unit Shipments and Revenue: 2015 - 2020
7.3.5 Global Microcell Unit Shipments and Revenue: 2015 - 2020
7.3.6 Global Small Cell Unit Shipments and Revenue by Technology: 2015 - 2020
7.3.7 Regional Outlook of the Market: 2015 - 2020
7.4 Small Cell Unit Shipments and Revenues by Region: 2015 - 2020
7.4.1 Asia Pacific
7.4.2 Eastern Europe
7.4.3 Latin & Central America
7.4.4 Middle East & Africa
7.4.5 North America
7.4.6 Western Europe

List of Figures:
Figure 1: HetNet Ecosystem
Figure 2: Mobile Data Offloading via WiFi within a Carrier Network
Figure 3: Small Cell Deployments within a Carrier Network
Figure 4: Small Cell Deployments in Home, Enterprise, Urban and Rural Scenarios
Figure 5: Small Cell Forum's Scope of Work
Figure 6: The Carrier WiFi and Small Cells Value Chain
Figure 7: Carrier WiFi and Small Cells Industry Roadmap: 2015 - 2020
Figure 8: Self Organizing Networks (SON)
Figure 9: KDDI's 3M Vision and Strategy
Figure 10: Carrier WiFi Unit Shipments: 2015 - 2020
Figure 11: Carrier WiFi Unit Revenues: 2015 - 2020
Figure 12: Carrier WiFi Unit Shipments by Category: 2015 - 2020
Figure 13: Carrier WiFi Unit Shipments by Category: 2015 - 2020
Figure 14: WiFi Offload vs. Standard WiFi Access Point Unit Shipments: 2015 - 2020
Figure 15: Carrier WiFi Offload Access Point Unit Shipments: 2015 - 2020
Figure 16: Standard Carrier WiFi Access Point Unit Shipments: 2015 - 2020
Figure 17: WiFi Offload vs. Standard WiFi Access Point Unit Shipments: 2015 - 2020
Figure 18: Carrier WiFi Offload Access Point Unit Shipments: 2015 - 2020
Figure 19: Standard Carrier WiFi Access Point Unit Shipments: 2015 - 2020
Figure 20: Carrier WiFi Unit Shipments by Region: 2015 - 2020
Figure 21: Carrier WiFi Revenues by Region: 2015 - 2020
Figure 22: Carrier WiFi Unit Shipments in Asia Pacific: 2015 - 2020
List of Tables:
Table 1: Carrier WiFi Vendor Ranking Matrix
Table 2: Small Cells Vendor Ranking Matrix
Table 3: Strategy Focus Areas for Deployment
Table 4: Small Cell Interference Types
Table 5: Interference Management Capabilities for Small Cells
Table 6: List of Fundamental SON Capabilities
Table 7: Strategic Requirements and Drivers for SON
Table 8: SON Architecture Types
Table 9: SON Vendors, Products, and Solutions
Table 10: Carrier Aggregation Types
Table 11: Small Cell Mobility Feature Requirements
Table 12: Solutions for Seamless Mobility Support in Small Cells
Table 13: Vendor Solutions for Seamless Mobility
Table 14: Authentication and Security Requirements
Table 15: Security Solutions for Small Cell Networks
Table 16: Backhaul Feature Requirements
Table 17: Backhaul Solution Requirements and Options
Table 18: Strategy Focus Areas for Business Aspects
Table 19: Strategy for Target Site Selection
Table 20: Key Areas for Requirements Specification and Procurement

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Carrier WiFi and Small Cells in LTE and Beyond: Market Opportunities and Forecasts 2015 - 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Address</td>
<td><a href="http://www.researchandmarkets.com/reports/3251110/">http://www.researchandmarkets.com/reports/3251110/</a></td>
</tr>
<tr>
<td>Office Code</td>
<td>SCDK3XA1</td>
</tr>
</tbody>
</table>

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Product Formats</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) - Single User</td>
<td>☐</td>
<td>USD 1995</td>
</tr>
<tr>
<td>Electronic (PDF) - 1 - 5 Users</td>
<td>☐</td>
<td>USD 2995</td>
</tr>
<tr>
<td>Electronic (PDF) - Enterprisewide</td>
<td>☐</td>
<td>USD 4995</td>
</tr>
</tbody>
</table>

Contact Information
Please enter all the information below in BLOCK CAPITALS

<table>
<thead>
<tr>
<th>Title:</th>
<th>Mr ☐ Mrs ☐ Dr ☐ Miss ☐ Ms ☐ Prof ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td>________________________________</td>
</tr>
<tr>
<td>Last Name:</td>
<td>________________________________</td>
</tr>
<tr>
<td>Email Address: *</td>
<td>__________________________________</td>
</tr>
<tr>
<td>Job Title:</td>
<td>__________________________________</td>
</tr>
<tr>
<td>Organisation:</td>
<td>__________________________________</td>
</tr>
<tr>
<td>Address:</td>
<td>__________________________________</td>
</tr>
<tr>
<td>City:</td>
<td>__________________________________</td>
</tr>
<tr>
<td>Postal / Zip Code:</td>
<td>__________________________________</td>
</tr>
<tr>
<td>Country:</td>
<td>__________________________________</td>
</tr>
<tr>
<td>Phone Number:</td>
<td>__________________________________</td>
</tr>
<tr>
<td>Fax Number:</td>
<td>__________________________________</td>
</tr>
</tbody>
</table>

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:

<table>
<thead>
<tr>
<th>Account number</th>
<th>833 130 83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort code</td>
<td>98-53-30</td>
</tr>
<tr>
<td>Swift code</td>
<td>ULSBIE2D</td>
</tr>
<tr>
<td>IBAN number</td>
<td>IE78ULSB98533083313083</td>
</tr>
<tr>
<td>Bank Address</td>
<td>Ulster Bank, 27-35 Main Street, Blackrock, Co. Dublin, Ireland.</td>
</tr>
</tbody>
</table>

If you have a Marketing Code please enter it below:

Marketing Code: ____________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World