The Wireless Network Infrastructure Ecosystem: 2016 – 2030 – Macrocell RAN, Small Cells, C-RAN, RRH, DAS, Carrier Wi-Fi, Mobile Core, Backhaul & Fronthaul

Description: The term “Wireless Network Infrastructure” has conventionally been associated with macrocell RAN (Radio Access Network) and mobile core segments of mobile operator networks. However, the scope of the term is expanding as mobile operators increase their investments in Heterogeneous Network or HetNet infrastructure such as small cells, carrier Wi-Fi and DAS (Distributed Antenna Systems), to cope with increasing capacity and coverage requirements.

In addition, mobile operators are keen to shift towards a C-RAN (Centralized RAN) architecture, which centralizes baseband functionality to be shared across a large number of distributed radio nodes. In comparison to standalone clusters of base stations, C-RAN provides significant performance and economic benefits such as baseband pooling, enhanced coordination between cells, virtualization, network extensibility and energy efficiency.

Due to a decline in macrocell RAN infrastructure spending, the report estimates that the wireless network infrastructure market will remain relatively flat through 2020, with annual investments of over $61 Billion. We also expect a significant shift in investments towards small cells, C-RAN, DAS and carrier Wi-Fi infrastructure. By 2020, these four submarkets, together with their fronthaul and backhaul segments, will account for over 50% of all wireless network infrastructure spending.


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

Key Findings

The report has the following key findings:

- Due to a decline in macrocell RAN infrastructure spending, the report predicts that the wireless network infrastructure market will remain relatively flat through 2020, with annual investments of over $61 Billion.
- The report predicts a significant shift in investments towards small cells, C-RAN, DAS and carrier Wi-Fi infrastructure. By 2020, these four submarkets, together with their fronthaul and backhaul segments, will account for over 50% of all wireless network infrastructure spending.
- Small cell and C-RAN solutions are beginning to converge as small cell OEMs seek to capitalize on the benefits of centralized coordination for in-building and enterprise coverage.
- Driven by ongoing large scale deployments, we estimate that LTE networks will generate nearly $800 Billion in annual service revenue by 2020.
- Vendors are increasing their focus on profit margins. Many are already cutting staff, embracing operational excellence, evolving their new business models, acquiring niche businesses and expanding their managed services offerings.
- New CapEx commitment avenues such as HetNet infrastructure and virtualization will continue to usher industry restructuring, and market consolidation.

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9.3 Fujitsu
9.4 Hitachi
9.5 Huawei
9.6 NEC Corporation
9.7 Nokia Networks & Alcatel-Lucent
9.8 Samsung Electronics
9.9 ZTE

10 Macrocell RAN, Small Cell, C-RAN & Mobile Core Specialists
10.1 Accelleran
10.2 Adax
10.3 ADB
10.4 Affirmed Networks
10.5 Airspan Networks
10.6 Alpha Networks
10.7 Altiostar Networks
10.8 Arcadyan Technology Corporation
10.9 Argela
10.10 ARItel
10.11 Artemis Networks
10.12 Askey Computer Corporation
10.13 ASOCS
10.14 Athonet
10.15 Athena Wireless Communications (Google)
10.16 Axxcelera Broadband Wireless (Moseley Associates)
10.17 Brocade Communications Systems
10.18 Casa Systems
10.19 CCI (Competitive Companies, Inc.)
10.20 Contela
10.21 CS Corporation
10.22 Datang Mobile
10.23 Dongwon T&I
10.24 Femtel (Suzhou Femtel Communications)
10.25 Gemtek Technology Company
10.26 GENBAND
10.27 GWT (Global Wireless Technologies)
10.28 HP (Hewlett-Packard)
10.29 ip.access
10.30 Juni Global
10.31 Juniper Networks
10.32 Lemko
10.33 LGS Innovations
10.34 Mitel Networks Corporation
10.35 New Postcom Equipment Company
10.36 NewNet Communication Technologies
10.37 Nutaq
10.38 Oceus Networks
10.39 Panda Electronics (Nanjing Panda Electronics Company)
10.40 Parallel Wireless
10.41 Polaris Networks
10.42 Potevio (China Potevio Company)
10.43 Quanta Computer
10.44 Quell
10.45 Quortus
10.46 Redline Communications
10.47 Sagemcom
10.48 Samji Electronics Company
10.49 SerComm Corporation
10.50 SK Telesys
10.51 SpiderCloud Wireless
10.52 Star Solutions
10.53 Sunnada (Fujian Sunnada Communication Company)
10.54 Taqua
10.55 Tecom
10.56 TEKTELIC Communications
10.57 Telum
10.58 Telrad Networks
10.59 WNC (Wistron NeWeb Corporation)
10.60 Z-Com (ZDC Wireless)

11 Antenna, DAS & Repeater Solution Specialists
11.1 AceAxis
11.2 ADRF (Advanced RF Technologies)
11.3 Affarii Technologies
11.4 American Tower Corporation
11.5 Arqiva
11.6 Axis Teknologies
11.7 Black Box Corporation
11.8 BTI Wireless
11.9 CCI (Communication Components Inc.)
11.10 CCI (Crown Castle International)
11.11 CCI Systems
11.12 Cobham Wireless
11.13 Comba Telecom Systems Holdings
11.14 CommScope
11.15 Corning
11.16 Dali Wireless
11.17 DeltaNode (Bird Technologies)
11.18 Ethertronics
11.19 ExteNet Systems
11.20 Foxcom
11.21 Galtronics
11.22 Goodman Networks
11.23 GrenTech (China GrenTech Corporation)
11.24 JRC (Japan Radio Company)
11.25 JMA Wireless
11.26 Kisan Telecom
11.27 KMW
11.28 Kathrein-Werke KG
11.29 MER-CellO Wireless Solutions
11.30 Microlab (Wireless Telecom Group)
11.31 MTI Mobile
11.32 Nexius
11.33 Nextivity
11.34 RF Window
11.35 RFS (Radio Frequency Systems)
11.36 Rosenberger
11.37 SOLiD (SOLiD Technologies)
11.38 Sumitomo Electric Industries
11.39 Sunwave Communications
11.40 TESSCO Technologies
11.41 Westell Technologies
11.42 Zinwave

12 Carrier Wi-Fi Specialists
12.1 4ipnet
12.2 ABB
12.3 Accuris Networks
12.4 Aerohive Networks
12.5 Alvarion Technologies
12.6 Aptilo Networks
12.7 Aruba Networks
12.8 Autelan
12.9 BandwidthX
12.10 Birdstep Technology
12.11 Browan Communications
12.12 BSG Wireless
12.13 D-Link Corporation
12.14 Edgewater Wireless Systems
12.15 EION Wireless
12.16 Firetide
12.17 Fortinet
12.18 Front Porch
12.19 GoNet Systems
12.20 Handlink Technologies
12.21 Meru Networks
12.22 Netgem
12.23 NETGEAR
12.24 Nomadix
12.25 Panasonic Corporation
12.26 Ro-Timak Technology
12.27 Ruckus Wireless
12.28 Senao Networks
12.29 Smith Micro Software
12.30 SpectrumMax
12.31 Syniverse Technologies
12.32 TP-LINK Technologies
12.33 Tranzeo Wireless Technologies
12.34 Ubiquiti Networks
12.35 WeFi
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12.37 ZyXEL

13 Enabling Technology Providers
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13.9 AKM (Asahi Kasei Microdevices)
13.10 Allot Communications
13.11 Amarisoft
13.12 Amdocs
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13.14 Aricent
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13.17 ASTRI (Hong Kong Applied Science and Technology Research Institute)
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13.19 Artiza Networks
13.20 Avago Technologies
13.21 Azcom Technology
13.22 Benetel
13.23 Blu Wireless Technology
13.24 Broadcom Corporation
13.25 Cadence Design Systems
13.26 Cavium
13.27 CeedTec
13.28 Cellwize
13.29 Celtro
13.30 Coherent Logix
13.31 Comcores ApS
13.32 CommAgility
13.33 D2 Technologies
13.34 Dell
13.35 Direct Beam
13.36 eASIC Corporation
13.37 EDX Wireless
13.38 Eoptolink Technology
13.39 ERCOM
13.40 EXFO
13.41 Federated Wireless
13.42 Faraday Technology Corporation
13.43 Finisar Corporation
13.44 GigaLight (Shenzhen Gigalight Technology Company)
13.45 GlobalFoundaries
13.46 Hisense (Hisense Broadband Multimedia Technology)
13.47 HG Genuine
13.48 IDT (Integrated Device Technology)
13.49 IMEC International
13.50 InfoVista
13.51 InnoLight Technology Corporation
13.52 Intel Corporation
13.53 InterDigital
13.54 iPosi
13.55 Ixia
13.56 Keysight Technologies
13.57 Kumu Networks
13.58 Lattice Semiconductor
13.59 Lime Microsystems
13.60 Lumentum
13.61 Macom (M/A-COM Technology Solutions)
13.62 Maxim Integrated
13.63 Mellanox Technologies
13.64 Microsemi Corporation
13.65 Mitsubishi Electric Corporation
13.66 Mobiveil
13.67 Molex
13.68 Nash Technologies
13.69 NetScout Systems
13.70 Node-H
13.71 Nomor Research
13.72 NXP Semiconductors
13.73 OE Solutions
13.74 Octasic
13.75 Optulink
13.76 P.I. Works
13.77 Pletronics
13.78 PMC-Sierra
13.79 Procura Networks
13.80 Public Wireless
13.81 Qualcomm
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13.85 RADCOM
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13.87 Rakon
13.88 Red Hat
13.89 Reverb Networks
13.90 RF DSP
13.91 Saguna Networks
13.92 SAI Technology
13.93 Sarokal Test Systems
13.94 Silicon Labs
13.95 Sistelbanda
13.96 Source Photonics
13.97 Tata Elxsi
13.98 TEOCO Corporation
13.99 TI (Texas Instruments)
13.100 Tulinx
13.101 U-blox
13.102 Vectron International
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14.3 Accedian Networks
14.4 Actelis Networks
14.5 Actiontec
14.6 Actus Networks
14.7 ADTRAN
14.8 ADVA Optical Networking
14.9 Advantech Wireless
14.10 ALAXALA Networks
14.11 Albis Technologies
14.12 ALCOMA
14.13 Allied Data Technologies
14.14 Allied Telesis
14.15 Aquantia
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14.17 Avanti Communications
14.18 Aviat Networks
14.19 AVM
14.20 BLINQ Networks
14.21 BluWan
14.22 BridgeWave Communications
14.23 BTI Systems
14.24 CableFree Solutions
14.25 Calix
14.26 Cambium Networks
14.27 Canoga Perkins
14.28 Carlson Wireless Technologies
14.29 CBNL (Cambridge Broadband Networks Ltd.)
14.30 CCS (Cambridge Communication Systems)
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14.32 Cielo Networks
14.33 Ciena Corporation
14.34 Comtrend
14.35 Corecess
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14.40 EBlink
14.41 ECI Telecom
14.42 Elva-1
14.43 Exalt Communications
14.44 Extreme Networks
14.45 FastBack Networks
14.46 Fiberhome Technologies
14.47 FibroLan
14.48 Genmix Technology
14.49 Gilat Satellite Networks
14.50 HFR
14.51 Huahuan
14.52 Hughes Network Systems
14.53 HXI
14.54 iDirect
14.55 Infinera
14.56 Intracom Telecom
14.57 IPITEK
14.58 Iskratel
14.59 KEYMILE
14.60 LightPointe Communications
14.61 Loea Corporation
14.62 MAX4G
14.63 Microwave Networks
14.64 MIMOtech
14.65 MRV Communications
14.66 Nexcomm Systems
14.67 NexxComm Wireless
14.68 Omnitron Systems
14.69 OneAccess Networks
14.70 Polewall
14.71 Positron
14.72 Proxim Wireless Corporation
14.73 RACOM
14.74 RAD Data Communications
14.75 RADWIN
14.76 SAF Tehnika
14.77 SIAE Microelectronics (SIAE Microelectronica)
14.78 Siklu
14.79 SkyFiber
14.80 SMC Networks
14.81 Solectek
14.82 Star Microwave
14.83 Tarana Wireless
14.84 Telco Systems
14.85 Tellion
14.86 Tellumat
14.87 Telsey
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