



Rethink Technology Research—Small Cells

Module 2: Enterprise small cells 2014 -2020

Updated in May 2016

This module focuses on detailed analysis of the trends in deployment of small cells in the enterprise market, which is set to be the area of highest growth for this technology for the coming 2-3 years.

Deployments and installed base for enterprise small cells are forecast over five years, with breakdown by region, technology and environment. There is also analysis of how the cells will be split between those for private enterprise use, and those which are consumer-facing, as well as the rise of dual-radio cells which support both modes of use.

In addition, there is detailed analysis of the locations of the small cell deployments, from shopping malls to office buildings to downtown metrozones or stadiums, with particular focus on scenarios where there will be the need for very dense capacity. The deployments are also forecast by the vertical sector implementing them.

These forecasts provide an in-depth picture of how small cells, whether cellular-only or cellular/ WiFi, will be implemented to meet the changing needs of a wide range of enterprises and public sector organizations, as well as their MNO providers.



All modules contain between 6 and 15 data tables plus regional breakdown, with accompanying commentary consisting of graphs and concise commentary on the assumptions underlying the forecasts, and the key factors driving them.

The wireless forecast included in this report is based on research on the top 40 international mobile operator groups, which account for 80% of the global mobile subscribers (IMG-40). From this representative group of operators, the macrocell and metrocell forecasts are developed.

From the starting point of a calculation of the number of cell sites already deployed worldwide, forecasts were made of the numbers of base stations that would be rolled out a) to brand new sites and b) to replace or upgrade existing sites. These deployment forecasts were then categorized by network topology, spectrum band, spectrum mode, region and other factors. The equipment deployed in each case was also surveyed and modeled.

These forecasts were based on a combination of data from:

- Detailed surveys, interviews and operator-by-operator modeling of the IMG-40 groups.
- Studies of the deployments and strategies of the top 100 4G operators, as tracked by Rethink Technology Research's quarterly surveys, interviews and desk research.
- A survey of 25 tier one operators about their detailed plans for RAN deployments to 2019.
- Input from ecosystem vendors on shipments, technology strategies and competitive landscape, also updated quarterly.

Based on the surveys of operators and vendors, it was then calculated how those cell sites would be equipped – by base station type, technology, frequency band etc, leading to a detailed unit and market size measurement.

Top 76 MNO groups

Number and profile of cell sites

Data requirements, location, business model, spectrum, regulatory

Equipment and software deployed 2014-2020 + capex



Sample from the Report

Tables 1 and 2. New deployments and installed base of enterprise small cells

The deployment of small cells by carriers, for public access or enterprise use, will experience far higher growth in the second half of the decade than the more mature residential market, whose CAGR will be 5%. The total market growth rate in this period will be 20%, while that of the enterprise space will be 63%.

Enterprise deployments of small cells will be the main engine of growth from 2015 as some of the barriers experienced in earlier years – cost, the wait for LTE and multimode cells, issues of WiFi coexistence – are increasingly addressed by the ecosystem. This sector is far more diverse than residential or public access, with small cells deployed in a wide variety of vertical industries and locations.

Enterprise cells also split broadly between those used for private company use, and those open to the enterprise's customers (as in a retail store); and between those which are deployed and/or managed by the mobile operator (MNO), and those which are deployed and managed by the enterprise itself, or its integrator, using MNO spectrum. These forecasts exclude home offices, since a large proportion of those use their residential small cells.

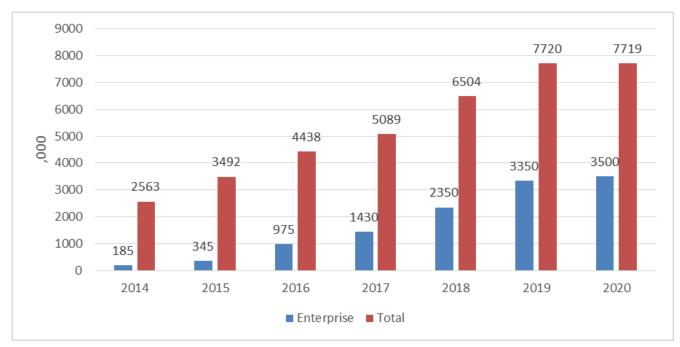


Table 1. Deployments of small cells, enterprise and total worldwide (,000s of units)



Sample from the Report

Enterprise small cell deployments and installed base 2014—2020

Table 1	Deployments of small cells (cellular and cellular/WiFi) by environment
Table 2	Installed base of small cells (cellular and cellular/WiFi) by environment
Table 3	New deployments of enterprise small cells by region
Table 4	New deployments of enterprise small cells, for private and public use
Table 5	Installed base of enterprise small cells, for private and public use
Table 6	New enterprise small cell deployments by location
Table 7	Enterprise small cell installed base by location
Table 8	New enterprise small cell deployments by venue (exc home office)
Table 9	New enterprise small cell deployments by vertical industry
Table 10	New enterprise small cell deployments by technology
Table 11	Enterprise small cell deployments - relationship with WiFi
Table 12	Management and deployment of enterprise small cells
Table 13	Enterprise small cell deployments by architecture
Table 14	Capex spending on enterprise small cells by region



Who Should buy these reports

Every business which is involved with - or wants to be involved with - mobile and wireless, particularly those with an interest in RAN deployments and technologies, including small cells/HetNet and virtualization. The reports include essential information and analysis for mobile and converged operators; their hardware and software suppliers; the wider value chain, including components suppliers and vertical market integrators; as well as investors in these areas, and professional institutions whose members will be affected by the shifts and changes in these markets.

Our reports are usually purchased by senior operational executives, strategists, analysts and marketing departments.

How can I buy these reports

Theses reports can be purchased individually from our website

http://rethinkresearch.biz/store/

To enquire about corporate licenses call us on +44 (0) 1794 521 411, or you can email john@rethinkresearch.biz

Subscribers to Rethink publications, including Wireless Watch and Faultline can just assume a 25% discount on the report prices. Just deduct it and say why.

How do I pay for these reports

You can pay through our ecommerce system via credit card, you can give us your contact details and we will call for a credit card number. If you need to raise a Purchase Order, we will deliver the report once we have the PO number. Major companies known just need to give us an emailed order for us to deliver.

Rethink Technology Research Ltd, unit G-5, Lower Station Approach, Temple Meads, City of Bristol, BS1 6QS

CEO: Peter White peter@rethinkresearch.biz

Dir of Research Caroline Gabriel caroline@rethinkresearch.biz



What RAN Research modules are available.

Each module below is available to purchase on our website, visit http://www.rethinkresearch.biz/store/ for further information, or for a discussion on options and further information contact John Constant on +44 1794 521 411 or via email john@rethinkresearch.biz

Rethink Small Cells

Module 1: Small cells deployments and installed base 2014-2020

Module 2: Enterprise small cells 2014-2020

Module 3: MNO WiFi deployments and installed base 2014-2020

HetNet

Module 1: HetNet deployments and key trends 2015-2020

Module 2: Macro layer deployments and key trends 2015-2020

Optimization

Module 1: SON deployments and key trends 2014-2020

Module 2: RAN optimization deployments and key trends inc VoLTE 2014-2020

Mobile network ownership, MVNOs and NWaaS

Module 1: Wholesale, sharing and NWaaS 2015-2020

Virtualization

Module 1: Cloud-RAN deployments and key trends 2015-2020

Module 2: NFV and SDN deployments and key trends 2015-2020

Pricing Per Module	US Dollar	GBP Pound (Exc VAT)	Euro (ExcVAT)
Single copy	2,000	1,300	1850
Single copy with updates over 12 months	4,000	2,600	3,700
Single copy with updates over 12 months and a Q&A session	8,000	5,200	7,400

Sales contact details

John Constant, +44 (0)01794 521 411

Email: john@rethinkresearch.biz