Rethink Technology Research—Small Cells

Module 2: Enterprise small cells 2014 –2020

Available September 2015

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 13 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 assumptions and forecasts are based on primary research, updated twice-yearly, which focuses on Rethink's core research base of the top 76 mobile operator groups worldwide (some groups have multiple national subsidiaries).

From the starting point of a calculation of the number of cell sites already deployed worldwide, forecasts are made of the numbers of base stations that will be rolled out a) to brand new sites and b) to replace or upgrade existing sites. These deployment forecasts are then categorized by network topology, spectrum band, spectrum mode, region and other factors.

These forecasts are based on a combination of data from:

- Detailed surveys, interviews and operator-by-operator modeling of the 76 groups to obtain a clear picture of RAN deployment plans to 2020.
- Studies of the deployments and strategies of those tier one and tier two MNOs, tracked over the past decade by Rethink.
- In-depth interviews with a targeted base of senior level respondents, many at CTO level.
- Input from ecosystem vendors on shipments, technology strategies and competitive landscape.

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.

Sample from the Report

Commentary to accompany data tables

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 co-existence – 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.

The market as a whole will continue to see growth in deployments until 2019, when new build-outs will peak at 7.7m before tailing off slightly as carriers complete their 4G roll-outs and start to consider 5G. At this stage, the total installed base of small cells will have reached 32.7m while the installed base of enterprise cells will have grown to 10.6m, at a CAGR of 65%.

Within the total build-out, enterprise small cells will grow from representing 5% of the installed base, and 7% of new deployments, in 2014, to 32% of the installed base, and 45% of new deploy-

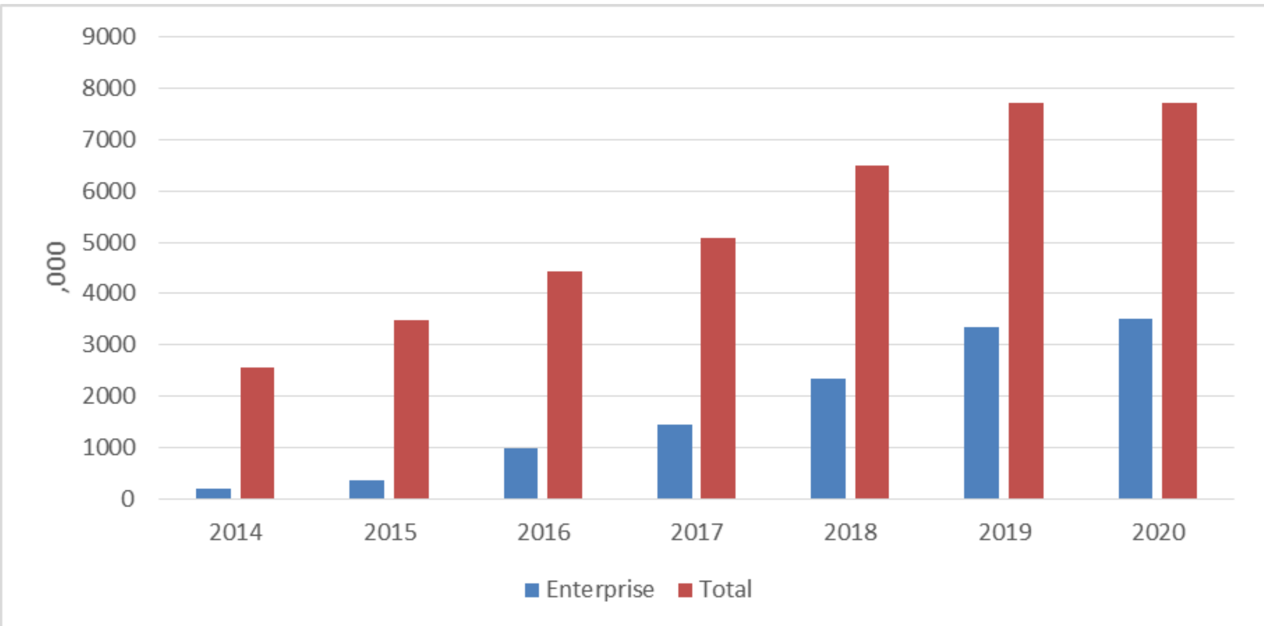

Table 1. Deployments of small cells, enterprise and total worldwide (,000s of units)

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

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
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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.

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When will the other RAN Research modules be available.

Each module will be completed and published in the following months.

Rethink Small Cells

Module 1: Small cells deployments and installed base 2014-2020— *July and updated September 2015*

Module 2: Enterprise small cells 2014-2020—*September 2015*

Module 3: MNO WiFi deployments and installed base 2014-2020—*October 2015*

HetNet

Module 1: HetNet deployments and key trends 2015-2020—*July 2015*

Module 2: Macro layer deployments and key trends 2015-2020—*October2015*

Optimization

Module 1: SON deployments and key trends 2014-2020—*September 2015*

Module 2: RAN optimization deployments and key trends inc VoLTE 2014-2020—*November 2015*

Mobile network ownership, MVNOs and NWaaS

Module 1 : Wholesale, sharing and NWaaS 2015-2020—*October 2015*

Virtualization

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

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

How Much will the RAN Research Modules cost

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

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