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New *iGR* study forecasts the lifetime costs of Remote Radio Heads deployed as Small Cells

Study also discusses the architecture of remote radio head deployments, including fronthaul and CPRI

AUSTIN, Texas, July 17th, 2015 – In order to keep up with increasing mobile data demand, mobile operators are evolving their radio networks by deploying outdoor small cells. Although today most remote radio heads (RRHs) sit at the top of a macrocell tower and are connected to baseband units (BBUs) at the tower's base, some mobile operators are beginning to place RRHs in many of the same places they might place metrocells – utility poles, roofs, and building sides.

Long accustomed to capital-intensive macrocell networks, many in the mobile industry are asking the question: how much will it cost to roll out, operate and maintain small cells? And more specifically, how much will it cost to roll out, operate and maintain remote radio heads when they are deployed as a small cell?

In its most recent market study, *iGR*, a market research consultancy focused on the wireless and mobile industry, has sought to answer these questions by modeling remote radio head costs over a five- year period. In the model, *iGR* assumes that 50 LTE-centric RRHs would be deployed at one time in an urban market. The model provides cost estimates for four different types of fixtures: new poles, existing poles, building sides and building roofs.

"As LTE use increases, mobile operators are beginning to deploy LTE remote radio heads to provide necessary coverage to meet the demand in dense urban environments," said Iain Gillott, president and founder of *iGR*. "In this study we have forecasted what a mobile operator's costs might be and have found that there is a wide range of costs associated with the deployments due to the location of the installment."

iGR's new market study, [U.S. RRH as Small Cell Lifetime Costs: A five-year cost estimate](#), provides a discussion of het-nets and the issues that surround small cell and specifically remote radio head deployments, including fronthaul and CPRI. In addition, it provides an estimate of

the costs associated with the deployment and maintenance of remote radio heads (RRHs) deployed as small cells over a five-year period.

The following key questions are addressed in the new research study:

- What is a het-net? What are small cells?
 - What are metrocells?
 - What are remote radio heads?
- What are network 'pain points'?
- What is driving the need for het-nets?
- How are pain points identified?
- What are different ways to address pain points?
- Where is it appropriate to deploy small cells (indoor and outdoor)?
- What are *iGR's* assumptions regarding small cell installations?
- What outdoor locations are best suited for small cell deployments?
- What are the average costs of these outdoor locations?
- What is an attachment? What is the average cost of an attachment?
- What are the different types of backhaul with regard to small cells?
- What types of backhaul are considered in the model?
- What is the average throughput needed for a small cell? What does that throughput cost?
- How much does it cost to deploy RRHs?
- How much does it cost over five years to deploy RRHs?

The information in this market study will be valuable for:

- Mobile operators
- Small cell equipment manufacturers
- Mobile backhaul suppliers
- Tower companies
- Antenna and tower equipment vendors
- Financial analysts and investors.

The new report can be [purchased](#) and downloaded directly from *iGR's* website at www.iGR-inc.com.

About *iGR*

iGR is a market strategy consultancy focused on the wireless and mobile communications industry. Founded by Iain Gillott, one of the wireless industry's leading analysts, in late 2000 as *iGillottResearch*, *iGR* is now in its fifteenth year of operation. *iGR* continuously researches emerging and existent technologies, technology industries, and consumer markets. We use our detailed research to offer a range of services to help companies improve their position in the marketplace, clearly define their future direction, and ultimately improve their bottom line.

iGR researches a range of wireless and mobile products and technologies, including: smartphones; tablets; mobile wearable devices; connected cars; mobile applications; bandwidth demand and use; small cell and het-net architectures; mobile EPC and RAN virtualization; DAS;

LTE; VoLTE; IMS; NFC; GSM/GPRS/UMTS/HSPA; CDMA 1x/EV-DO; iDEN; SIP; macro-, pico- and femtocells; mobile backhaul; WiFi and WiFi offload; and SIM and UICC.

A more complete profile of the company can be found at www.igr-inc.com.