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## **New *iGR* study forecasts the lifetime costs of deploying Small Cells in the U.S.**

***Study also discusses the architecture of remote radio head deployments as small cells, including fronthaul and CPRI***

**AUSTIN, Texas, November 2nd, 2016** – 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, many mobile operators have been placing RRHs in the same places they might place metrocells – utility poles, roofs, and building sides.

How much does it cost to roll out, operate and maintain these remote radio heads when they are deployed as small cells? In its most recent market study, *iGR*, a market research consultancy focused on the wireless and mobile industry, has answered this question 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. The model assumes that dark fiber, lit by optical gear purchased and installed by the mobile operator, is used to provide fronthaul connectivity to the RRHs. Further, *iGR* has modeled two scenarios regarding the dark fiber: the mobile operator builds dark fiber or the mobile operator leases dark fiber with a 10-year IRU.

“In this model 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, as well as the choice to build or lease dark fiber,” said Iain Gillott, president and founder of *iGR*. “Although our model uses average values, it could also be used to generate costs for a specific market.”

*iGR*'s new market study, [U.S. Small Cell Lifetime Costs: A five-year cost estimate](#), 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. In addition, it provides a discussion of het-

nets and the issues that surround small cell and specifically remote radio head deployments, including fronthaul and CPRI.

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

- How much does it cost to initially deploy RRHs as small cells when the dark fiber is installed/built by the mobile operator? And when it is leased?
- How much does it cost over five years to deploy RRHs as small cells using both a carrier build model and a carrier lease model for the dark fiber?
- What are *iGR*'s assumptions regarding remote radio head installations?
- What outdoor locations are best suited for remote radio head deployments?
- What are the average costs of these outdoor locations?
- What is an attachment? What is the average cost of an attachment?
- What is fronthaul and CPRI?
- What types of fronthaul are considered in the model?
- What is a het-net? What are small cells?
- What is driving the need for het-nets?
- What are network 'pain points' and what are different ways to address them?

The information in this market study will be valuable for:

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

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