Microwave Backhaul and Issues for Small Cell Architectures

Market Study
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Abstract

Microwave is a solid alternative to fiber and T1 for mobile operators to deploy as they struggle to understand and implement new small cell architectures and/or deal with escalating mobile data requirements and costs on their network. Microwave is scalable, cost effective and may be a better alternative to both fiber and T1, depending on geography.

This study looks at how microwave backhaul is deployed, the technical solutions available and forecasts the amount of traffic likely to be carried on microwave backhaul through 2016. Importantly, *iG*R also interviewed major operators as part of the research for this study.

New and emerging vendors in this space are hardware, software, and network agnostic, which provides for a much greater level of flexibility during this period of flux. But with a mind-boggling suite of diverse microwave and millimeter wave solutions available, many vendors will be involved in a torrid battle for survival and supremacy.

The number of new vendors also raises concerns of the mobile operators, many of whom are questioning the validity of some of the marketing claims. More than one mobile operator expressed concern that the new microwave solution vendors were over-hyping the technology and risked 'poisoning the well' for all.

While the operators interviewed by *iG*R for this report stated that fiber would be their first choice, assuming availability at an effective price, microwave backhaul solutions are considered viable options in the right circumstances, and especially critical for small cell deployments.

That said, many operators believe that the issues with microwave backhaul for small cells are significant enough to cause delay, or could stop, large scale small cell deployments. These issues are discussed in the study.

Key questions addressed in this study:

- What is the anticipated growth of microwave backhaul in the U.S. through 2016?
- How do the major mobile operators view microwave backhaul?
- What are the major concerns of the mobile operators with regard to microwave backhaul?
- How can these concerns be addressed?
- What is the role for microwave backhaul in small cell architectures?

- How is microwave backhaul deployed?
- What are the attractions and drawbacks of microwave backhaul for the mobile operators?
- How do PtP, PMP, hybrid, millimeter wave and traditional microwave solutions differ?
- How does microwave backhaul compare to fiber backhaul?

This report is recommended for:

- Cellular carriers, particularly those servicing the U.S. market
- Mobile backhaul providers, including telcos and cable MSOs
- Microwave backhaul vendors and solution providers
- Mobile OEMs, particularly those servicing the U.S. market
- Wireless infrastructure vendors, particularly those servicing the U.S. market
- Financial and investment analysts.