Wired Backhaul Opportunities and Issues for Small Cell Architectures

Market Study
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Abstract

When operators choose backhaul methods for small cells, they go through a decision chain that balances current need (coverage versus capacity and the bandwidth requirements) against cost (and total cost of ownership), payback period and future scalability. Fiber is preferred over other backhaul options – other wired options (e.g., VDSL2, HFC) or wireless.

The main advantages for wired backhaul, fiber in particular, are: high throughput, low latency and substantial throughput scaling over time. But there are two significant challenges with fiber: it is not always where it is needed and it is relatively expensive to deploy. However, once fiber is in place, the incremental cost of adding new capacity is low.

Ultimately, it all comes down to the specific challenge they are trying to overcome. Every city is different; it is trite to say, and of course there are similarities and best practices across deployments, but the actual technology choice comes down to the specific situation.

This market study briefly discusses the wired backhaul technologies available for small cells and the main market drivers for wired backhaul to support small cells. It also presents *iG*R's North American forecast for wired backhaul to support LTE small cell deployments over the next five years.

Key questions addressed in this study:

- What is the anticipated growth of wired backhaul in North America through 2018?
- How do the major mobile operators view wired backhaul?
- What are the major concerns of the mobile operators with regard to wired backhaul?
- How can these concerns be addressed?
- What is the role for wired backhaul in small cell architectures?
- How is wired backhaul deployed?
- What are the attractions and drawbacks of wired backhaul for the mobile operators?

This report is recommended for:

- Cellular carriers, particularly those servicing the U.S. market

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