



Cellular Backhaul Application Brief

Bringing communications to remote areas of the world is a huge opportunity for cellular operators to profitably expand their networks and gain millions of new customers.

With many of the world's major metropolitan areas already covered, still one billion people around the world have limited or no access to cellular services. But with limited terrestrial infrastructure in place, how can you cost effectively expand your cellular network?

Satellite connectivity is an obvious means of overcoming difficult terrain and geographic constraints, but conventional SCPC links fall short of offering the flexibility to dynamically adjust to changing calling patterns.

Optical fiber and leased lines are hard to deploy, with long installation timelines. Microwave links are costly to deploy and maintain and have limited reach capabilities.

Cellular providers need a more cost-effective backhaul solution. Today, VSAT TDMA connectivity is literally transforming the landscape of the cellular backhaul market.

iDirect's IP-Based D-TDMA Solution

New innovations in cellular infrastructure and satellite backhauling now enable operators to more profitably pursue customers in rural markets. iDirect's unique, advanced IP-based D-TDMA solution enables carriers to share network capacity across multiple locations, allocating bandwidth on demand to maximize efficiency while reducing costs.

The iDirect platform can be easily scaled to add capacity as markets develop and traffic increases. Compatible with all major cellular infrastructure solutions, it provides terrestrial-like voice quality with advanced quality of service features by constantly prioritizing real-time applications to avoid network congestion and service degradation.

Greater Rural Expansion

The bottom line: Now, you can profitably and more easily offer cellular service to millions of potential new customers who may not have access to basic telephony.

Win and preserve customer loyalty. When you provide much-needed connectivity into isolated areas, you have the potential to gain life-long customers, becoming an integral and indispensable part of life. The first provider in rural markets generally remains the primary provider, establishing a solid competitive barrier not easily overcome. Plus, you'll recoup roaming revenue from competitors.

Extend your coverage footprint. For metropolitan subscribers who regularly travel into remote areas, you offer more value.

Expand into regions with constrained capacity. Bandwidth efficiency gains enable operators to expand into these regions, where capacity comes at a premium.

Leverage greater revenue opportunities. Since average revenue per user (ARPU) is lower from rural users, cost efficiencies via transport optimization are essential to meeting market pricing and maintaining profitability. Realizing revenue opportunities from other value-added services such as data services, fixed voice, WiFi and WiMAX help boost the bottom line.

Meet regulatory requirements. Many governments require carriers to cover remote and sparsely populated areas as a requirement for licenses in the cities.

Upgrade your legacy backhaul networks. Take advantage of the latest innovations in cellular infrastructure such as unified IP networks. They're more reliable and cost-effective, and best position you for future growth.

Clearing the Way to Extend Cellular Networks Worldwide

Cellular service providers are taking a close look at shared bandwidth solutions to maximize bandwidth efficiency as they expand cellular networks into less densely populated regions.

Together with iDirect, they're establishing exciting new ROI models for cellular backhaul, replacing inefficient SCPC links with shared IP TDMA networks.

The introduction of cellular backhaul over TDMA networks coupled with traffic optimization solutions is dramatically reducing bandwidth needs enabling operators to profitably extend cellular networks to every citizen and organization in any corner of the world.



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Advancing a Connected World