



## **Cellular Backhauling** *with RADWIN's WinLink™ 1000*

### **The Wireless Alternative: Delivering Cost Efficient Backhauling**

Today's cellular telecommunications customers demand advanced, bandwidth-intensive data services, and patience wears thin if quality of service is less than perfect.

To stay on top of the competition, cellular operators need to stay in sync with customer demand. And for that they need a backhaul solution capable of relaying high bandwidth traffic to a growing number of cellular sites with carrier-grade reliability at the most cost-effective price.

Trenching cable or fiber to backhaul base station traffic to the network backbone carries a heavy price tag and often requires working around difficult obstructions, such as roads or underground sewer systems.

That's why the case for deploying wireless equipment for diverse cellular backhauling scenarios has become so compelling.

### **WinLink™ 1000: Connecting Backhaul to the Bottom Line**

RADWIN's premier point-to-point broadband wireless system, the WinLink™ 1000, presents cellular operators with the first truly compelling solution for addressing backhauling challenges both in terms of price and performance. Virtually maintenance-free, the license-exempt wireless solution is capable of handling all voice and data backhaul traffic at just a fraction of the cost of alternative solutions.

The carrier-grade WinLink™ 1000 is quickly becoming the product of choice for service providers across the globe, and for good reason: it tackles all the must-have requirements that cellular operators typically stress as make-or-break issues, such as availability, range, reliability and quality. In addition, WinLink™ 1000 uses innovative technologies to deal with interference issues. This marks the first time that a license-exempt system can seamlessly operate even in the most crowded environments and serve cellular backhauling needs with optimal reliability while maintaining a highly competitive price.

# Cellular Backhauling

## From Backhaul to Backup: A Wealth of Wireless Applications

WinLink™ 1000 is capable of delivering up to four E1s/T1s at carrier grade quality and complies with the stringent requirements for TDM traffic, providing cellular operators with a high quality backhaul solution that fulfills their needs. In addition, WinLink™ 1000 supports Ethernet services, enabling carriers to deliver management traffic or offer Ethernet services to fixed customers from the same site. The ability to bundle TDM and Ethernet services enables increased revenue streams today while simultaneously laying the groundwork for the evolution of cellular networks from TDM to Ethernet.

WinLink™ 1000 is an ideal wireless alternative for cellular operators who need to address a wide variety of backhaul scenarios, including:

**Rural connectivity** - In remote and/or sparsely populated areas, the business case for deploying wireline or licensed wireless infrastructure is shaky at best. The WinLink™ 1000 license-exempt wireless system is simply the most cost-effective solution for meeting the demands of customers located in remote locations.

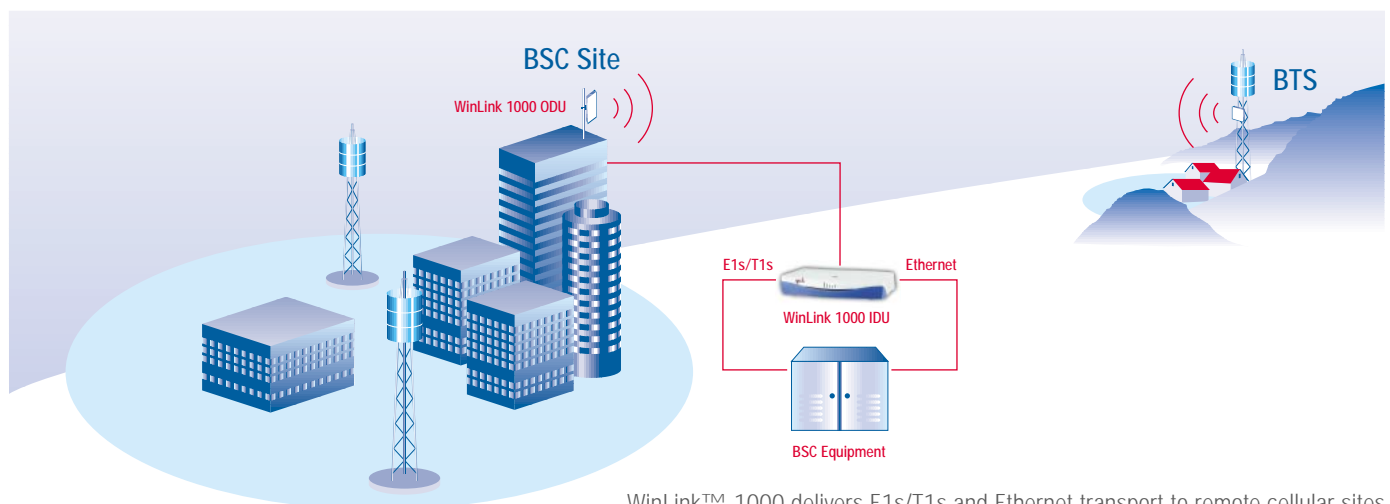
**Transcending geographical boundaries** - High-speed cable and fiber infrastructure doesn't often reach into remote regions that are located in difficult topographies (mountains, rivers, canyons, etc.). WinLink™ 1000 easily overcomes these physical challenges and provides seamless rural connectivity over unlicensed airwaves at distances of up to 80 Km/50 miles. The utilization of OFDM technology enables deployment in NLOS scenarios as well.

**Peak period relays** - Cellular operators often find it difficult to deal with the backhaul burden caused by special public events, such as outdoor concerts and festivals in the park, or excess traffic from other busy venues. WinLink™ 1000 enables quick and cost-effective deployment of additional base stations for handling excess traffic.

**Backup (1+1)** - In the event of sudden network degradation or infrastructure damage there is no reason to suffer the consequences of costly downtime. WinLink™ 1000 is the ultimate backup system for all of your backhauling needs.

## The WinLink™ 1000 Advantage

- **Unrivalled price** - More competitive than any other wireline or wireless backhauling solution of similar performance levels.
- **Carrier grade performance** - Designed for high reliability and robust performance in the harshest weather conditions and transmits faithfully over difficult terrain.
- **Voice and Data solution** - Delivers both E1s/T1s and Ethernet services. A single link accounts for all your telephony and data needs.
- **Long range** - Up to 80 Km/ 50 miles.
- **Simple installation** - Link is established and running in just hours.
- **Security** - AES 128-bit key encryption scheme guarantees optimal over-the-air security.
- **Interference management** - Automatically skips channels in a crowded environment.
- **Pay-as-you-grow** - No large advance infrastructure expenditures necessary. Purchase new equipment as your network expands.
- **Future-proof & scalable** - As traffic transport migrates from TDM to Ethernet, WinLink™ 1000 is poised to serve your needs both today and tomorrow.



WinLink™ 1000 delivers E1s/T1s and Ethernet transport to remote cellular sites