Point-to-point microwave links distance-engineered for demanding applications

Aprisa *XE*

Long range

High capacity

Carrier-class availability
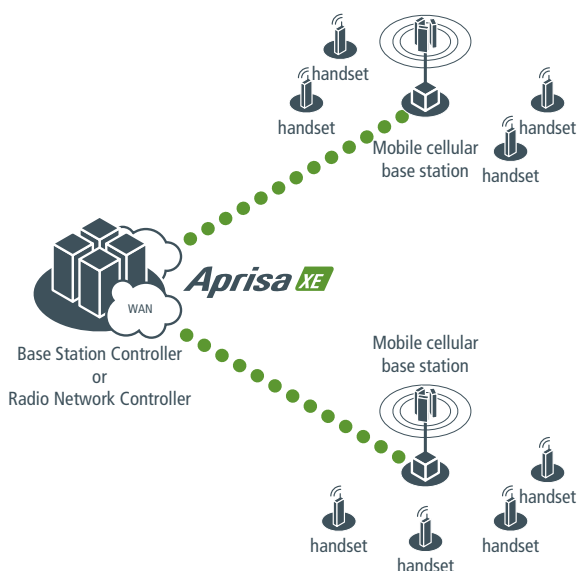
Cost-effective

Long distance backhaul for mobile telecommunications operators

To profitably extend mobile coverage into rural and remote areas, without compromising quality of service, mobile cellular operators need a cost-effective backhaul solution. The Aprisa XE family of point-to-point radios from 4RF provides a flexible, carrier-class platform for seamless network expansion, with connectivity over distances of up to 250 km. Supporting 2G, 3G and future generations of mobile networks and services, in addition to backhauling WiMAX / fixed wireless access traffic, the Aprisa XE enables rapid network expansion and subscriber growth even in those remote areas that were previously prohibitively difficult or costly to reach.

Aprisa XE

ADVANCED POINT-TO-POINT WIRELESS SOLUTIONS

An Aprisa XE point-to-point microwave link provides a flexible range of interfaces to backhaul traffic for all types of mobile networks, from existing 2G and 3G deployments through to emerging LTE-based services. The Aprisa XE carries voice, legacy data and IP traffic, with a modular multi-service multiplexer supporting all network requirements. The Aprisa XE provides operators with a reliable, low total cost of ownership solution to the challenges of extending cellular coverage to remote, rural and low density subscriber populations, delivering a sustainable business case for ubiquitous mobile cellular coverage.

SPECIFICATION	APRISA XE
Frequency bands	300 MHz – 2700 MHz (licensed bands)
Modulation	Software configurable from QPSK to 128 QAM
Capacity	72 kbit/s – 65 Mbit/s
Channel sizes	From 25 kHz to 14 MHz (band-dependent)
Interfaces (supported by digital cross connect)	E1 / T1 framed and unframed 2-Wire FXO / FXS 4-Wire E&M V.24 synchronous, asynchronous, over sampling High-speed synchronous X.21 / V.35 / RS-449 / RS-530 10 / 100Base-T Ethernet
Management	Element: Embedded web-based SuperVisor software Network: Any SNMP-compliant NMS platform

Why the Aprisa XE ?

- **Long range** – The Aprisa XE has been designed to overcome the connectivity problems of long distances, difficult terrains and challenging environmental conditions, with support for links of up to 250 km (155 miles). The Aprisa XE makes rural and remote mobile coverage not only feasible, but also profitable.

- **High capacity** – with up to 65 Mbit/s capacity, low latency and class-leading spectral efficiency, a single Aprisa XE link provides more than sufficient capacity for today's voice and data backhaul requirements. It also provides a future-proof backhaul solution as mobile networks become more data-intensive, and can be used to backhaul traffic from fixed wireless or WiMAX networks.

- **Carrier-class availability** – with its use of low frequency licensed spectrum bands and carrier class availability, the Aprisa XE provides interference-free operation and reliably maintains even long distance and challenging backhaul connections, enabling operators to extend quality of service guarantees to customers.

- **Cost effective** – the Aprisa XE enables mobile operators to optimise capital expenditure and virtually eliminate operational expenditure, resulting in a significantly improved business case compared to other backhaul options. As well as backhauling traffic from new locations, the Aprisa XE is ideal for replacing existing opex-draining backhaul such as leased lines or satellite, or to replace a network of capex-intensive higher frequency microwave links.

4RF