

TESTIMONIAL

Mobile Operator Upgrades Network for Sustainable Service Expansion

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Bharti Airtel Limited is a leading integrated telecommunications company with operations in 20 countries across Asia and Africa. Headquartered in New Delhi, India, the company ranks amongst the top five mobile service providers globally in terms of subscribers. In India, the company's product offerings include 2G, 3G and 4G services, fixed line, high-speed broadband through DSL, IPTV, DTH, and enterprise services including national & international long distance services to carriers. In the rest of the geographies, it offers 2G, 3G mobile services.



In June 2010, the company acquired the Zain Group's Africa mobile operations. Today, Airtel provides mobile services using GSM technology to 50+ million subscribers in 17 countries across Africa, namely Nigeria, Burkina Faso, Chad, Congo Brazzaville, Democratic Republic of Congo, Gabon, Madagascar, Niger, Ghana, Kenya, Malawi, Seychelles, Sierra Leone, Tanzania, Uganda, Zambia and Rwanda.



Over one billion people reside in Africa. Airtel entered the region with a clear intent and strategy – to transform how individuals communicate and how communities interact in the region. The low mobile penetration levels across many of the African countries of operation presented an opportunity for this service provider.

However, managing operations in 17 countries with different levels of infrastructure, a variety of terrains, varying population density and varying availability of resources is a complex task.

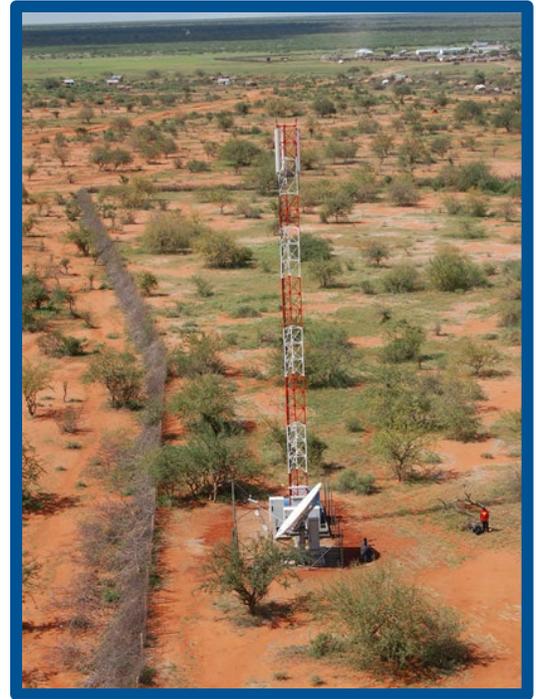
In Africa, Airtel is a major consumer of satellite capacity, particularly in landlocked countries without direct access to submarine cable capacity. In order to enable sustainable and profitable service expansion and subscriber growth to rural areas and remote villages, Airtel needed to upgrade its satellite-based network infrastructure.

After a review of available satellite infrastructure technologies, Airtel selected the market-leading bandwidth optimization by Comtech EF Data and subsidiary, Memotec. The technologies will facilitate Airtel's significant growth planned for the African region, including supporting a network upgrade and service expansion across its operations in 16 African countries. The equipment was selected based on Comtech EF Data's/Memotec's track record of providing operators globally with infrastructure products that reduce OPEX and increase throughput for satellite-based mobile backhaul.

Bandwidth Optimization

CDM-625 Advanced Satellite Modem with DoubleTalk® Carrier-in-Carrier®

Airtel selected Comtech EF Data's award-winning CDM-625 Advanced Satellite Modem with DoubleTalk® Carrier-in-Carrier® bandwidth compression to optimize their satellite links and better leverage available bandwidth.



DoubleTalk Carrier-in-Carrier, based on the patented "Adaptive Cancellation" technology, which allows transmit and receive carriers of a duplex link to share the same transponder space. DoubleTalk Carrier-in-Carrier is complementary to all advances in modem technology, including advanced FEC and modulation techniques. This allows for its successful deployment in bandwidth-limited and power-limited scenarios, as well as reduction in earth station BUC/HPA power requirements.

Memotec CX-U Series

The CX-U Series brings together a flexible access device and mobile backhaul traffic optimization, offering a variety of backhaul interfaces and transmission options. Airtel selected several CX-U models for deployment in Africa – CX-U 1010, CX-U 1220 and CX-U 1240. The products are optimizing Airtel's Radio Access Network (RAN), significantly reducing the amount of backhaul bandwidth required to support their mobile services over constrained links.



The Bottom Line

Bharti Airtel completed the first phase of their network upgrade. By utilizing the Comtech EF Data and Memotec bandwidth optimization technologies, they have successfully reduced network operating expenses – for some satellite links by as much as 50%. As traffic and subscriber demand increases, Airtel is prepared to cost-effectively expand services while maintaining the quality of service their users have come to expect.

More Information

The combined Comtech EF Data and Memotec mobile backhaul solution is unrivaled for backhauling mobile base station traffic over satellite links. The solutions enable sustainable and profitable service expansion for mobile operators, including:

- Expansion into low density regions
- Superior service quality
- Network scalability
- Power efficiencies
- Bandwidth efficiencies
- Reduction in leased bandwidth



To learn more about Comtech EF Data and Memotec technologies, visit www.comtechefdata.com.

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DoubleTalk® is a Registered Trademark of Raytheon Applied Signal Technology