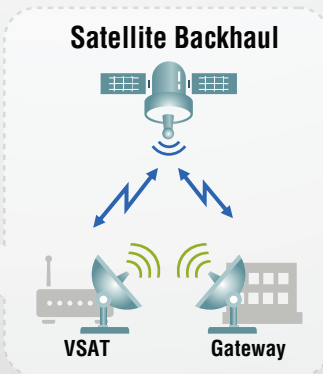
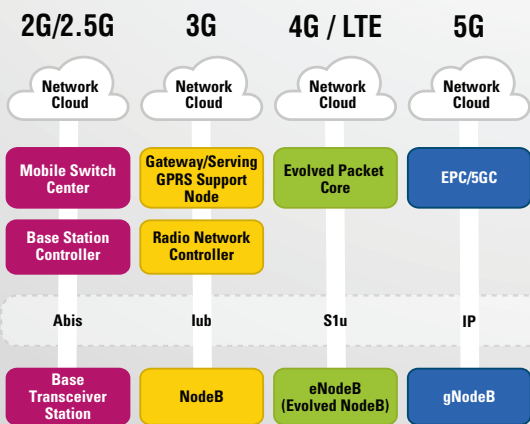
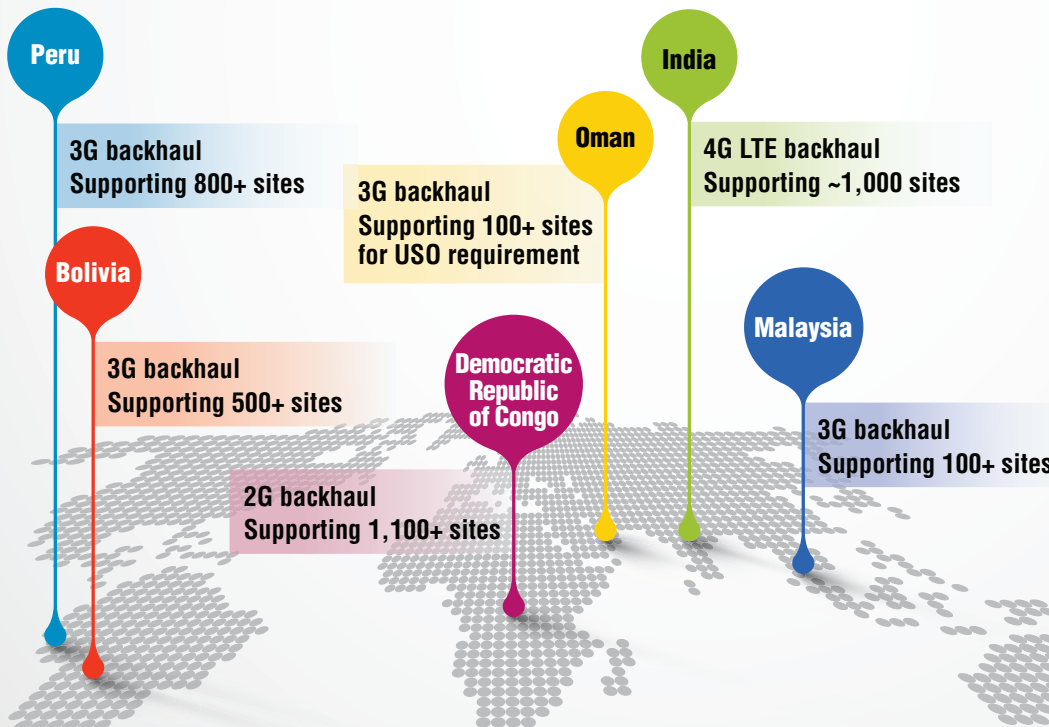


# Cellular Backhaul by Satellite

*Backhauling More than 10,000 Cellular Sites across Africa, Asia and Latin America with the Hughes JUPITER System*

For mobile operators looking to expand networks or meet Universal Service Obligations (USO), reaching new markets in ex-urban, semi-rural and rural areas is a challenging necessity. These markets are often located in areas where terrestrial fiber or microwave services are not readily available to support the backhaul links for base stations. Backhaul by satellite using the Hughes JUPITER™ System offers a low-cost and effective means for interconnecting cellular base stations, regardless of distance, infrastructure, or terrain.



## JUPITER SYSTEM

### Advantages of the JUPITER System for Cellular Backhaul

**10 ms** Approximately 10 ms jitter

Layer 2 transport for seamless integration



Integrated **LTE and 5G/NSA** acceleration supporting **16,000 simultaneous TCP sessions**

Optional all-outdoor solution meets **IP-67 standards** for protection against dust and water

**IEEE 1588 Precision Timing Protocol** using **integrated GPS** to synchronize base station with core

Optional **DVB-S2X** return channel for very **high speed sites**

**Low power consumption** suitable for solar power

**HUGHES**  
An EchoStar Company