Use Case 1: Rural Backhaul Extension



Fast, flexible high-capacity network extension over challenging terrain

Challenge

Rural internet service providers often rely on aging fiber or over-stretched microwave links for backhaul. Deploying new fiber is slow and cost prohibitive across challenging terrain, while wireless radio can't deliver the speed or reliability of today's user demands. The results:

- Stalled growth: Limited backhaul constrains subscriber acquisition and growth.
- Competitive pressure: Satellite entrants attract subscribers seeking faster service.
- Community impact: Businesses, schools, hospitals, and homes remain locked out of modern digital services.

Solution

Taara Lightbridge serves as the primary backhaul, instantly adding up to 20 Gbps per link without trenching or spectrum licensing. It integrates seamlessly with existing fiber or microwave backhaul to deliver 99.99% network reliability — and pairs with high-capacity last-mile fiber or next-generation fixed-wireless access (ngFWA) to deliver high-speed, low-latency connectivity to previously underserved communities.

Business Outcomes

BENEFIT	OPERATOR IMPACT
Rapid deployment	Operational in hours, instead of months or years
Cost efficiency	Fraction of the CAPEX of new fiber builds
Pair with high-speed last mile	Unlocks fiber-to-the-home and ngFWA growth, enabling new service tiers
Market expansion	Enables enterprise and wholesale backhaul services
Future-proof	Scales capacity via multi-link aggregation. No recurring spectrum fees



With Taara Lightbridge, our rural customers finally enjoy fiber-class speeds that were once out of reach. We've filled critical capacity gaps and opened new revenue streams — serving more demanding enterprise clients and offloading additional carrier backhaul — all while strengthening our competitive edge.

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