



CASE STUDY

AYERA DOUBLES CAPACITY

with Ceragon's EH-8020FX 20 Gbps E-Band



Delivering the Bandwidth to Fuel Growth

Ayera Technologies, a long-standing wireless ISP based in Modesto, California, has spent years connecting communities across the Central Valley from Fresno to Sacramento. With hundreds of high-capacity fixed wireless links in operation, and many of them from Ceragon, the company continues to push technological limits to meet growing demand for reliable, low-latency broadband services.

Ceragon has been a trusted partner of Ayera for over a decade. Together, they achieved a new milestone with the deployment of the Siklu by Ceragon EH-8020FX, a next-generation 20 Gbps E-band solution. The radios demonstrate outstanding performance and stability, proving they're ready for real-world, capacity-hungry operations.



"We've run Siklu by Ceragon's EH-8010FX for years, and it's been rock-solid for nearly a decade. So, trusting the EH-8020FX to take us further was an easy decision — and it delivered. **Capacity doubled overnight**, latency stayed low, and uptime remained perfect. The EH-8020FX gives us real-world performance we can confidently build our business on."

Mathew Ford, CEO Ayera Technologies

THE CHALLENGES

Pushing Capacity Farther | Ensuring Fiber-Class Reliability

After more than eight years of dependable performance, Ayera's 10 Gbps backbone, powered by the proven Siklu by Ceragon EH-8010FX, had reached its capacity limits. The network had consistently supported a diverse customer base, including residential users, businesses, and Modesto's municipal network, where uptime was critical.

To maintain exceptional service quality and support growing demand for higher capacity, Ayera needed a solution that could:

- Deliver substantially more capacity without a complete infrastructure overhaul.
- Maintain ultra-low latency and rock-solid performance across at least a 2-mile (3.2 km) span.
- Integrate seamlessly with existing network architecture and rooftop distribution points.
- Withstand California's unpredictable weather from dry heat to seasonal downpours.

The challenge was clear: scale capacity without sacrificing the trusted reliability that defined Ayera's network reputation.

THE SOLUTION

Major Capacity Boost - 20Gbps | Proven Reliability | 2-mile (3.2km) link

Working closely with Ceragon's R&D and field engineering teams, Ayera implemented a 2-mile long, 2+0 four-radio EH-8020FX XPIC configuration link between its downtown Modesto headquarters and a central Modesto commercial building serving as a vital distribution hub for multiple residential, enterprise, and municipal endpoints.

Key elements of the solution included:

- 2+0 four-radio XPIC configuration doubling capacity on the same RF channel without additional spectrum requirements.
- 20 Gbps E-band wireless transport delivering fiber-class throughput over a 2-mile (3.2 km) link.
- Out-of-the-box configuration minimizing integration effort and accelerating time to service activation.
- Standard 2-ft antennas enabling fast, straightforward deployment.
- Seamless integration with existing rooftop distribution points and network architecture.
- Low-latency, jitter-free performance supported by XPIC for stable, high-quality service delivery.
- Carrier-grade reliability ensuring consistent performance under varying environmental conditions .

THE RESULT

20 Gbps Throughput | Stable Operation | Scalable for Expansion

Built on the rock-solid foundation of Ayera's original EH-8010FX radios, purchased eight years ago and still running flawlessly, the move to the EH-8020FX was a natural next step. As a direct evolution within the same EtherHaul family, the upgrade was seamless: same setup, same tools, same workflows. No retraining, no surprises.

- 20 Gbps delivered solidly across a 2-mile link.
- High availability and low latency seamlessly aggregating residential, enterprise, and municipal services.
- Stronger performance in tough conditions with XPIC doubling capacity on the same RF channel, no FCC update required.
- Simpler cascading / multi-user connections thanks to the added 10G fiber port.
- Future-ready scalability: Ayera plans to expand EH-8020FX deployments throughout its core network.

LOOKING AHEAD

Building on the success of the EH-8020FX deployment, Ayera plans to upgrade its core backhaul links to the EH-8020FX, doubling many of its links' capacities across its Central Valley POPs. With Ceragon as its trusted technology partner, Ayera is positioned to deliver fiber-like performance, faster service expansion, and greater customer reach, ensuring the bandwidth to fuel growth for years to come.

About Ayera Technologies

Ayera Technologies is a California-based internet service provider delivering high-speed, low-latency connectivity to homes and businesses across the Central Valley and beyond. Through its advanced fixed wireless network, Ayera brings reliable broadband to both urban and underserved areas. The company also operates a carrier-neutral datacenter in Modesto, supporting scalable connectivity and infrastructure services.

