



Transforming Campus Connectivity with Private 5G – The Thacher School

A real-world case study in secure, wide-area wireless coverage for safer learning environments.

CHALLENGE: Outdoor Coverage for Safer Schools

States and municipalities across the country are striving to improve safety and visibility across K-12 campuses. Higher Education campuses also have similar challenges. Schools like **The Thacher School** in Ojai, California—set on over **200 acres** of diverse terrain including fields, stables, and solar arrays—face unique connectivity challenges. Traditional Wi-Fi, while effective inside classrooms and main buildings, often falls short outdoors. Limited range, interference, and infrastructure costs make it difficult to extend coverage to parking areas, open fields, etc, where visibility and safety matter most.

Thacher’s IT Director, **Jerry Holden**, envisioned a campus where outdoor cameras, AI-enabled sensors, and connected devices could operate seamlessly across all areas—from riding arenas to athletic fields—without relying on expensive cabling or complex setups.

“Our goal was to see everything that happens across campus—from the stables to the solar field—without pulling miles of cable,” said Jerry.



The Solution: Designing Private 5G for 200+ Acres

Working together, Ataya and TECLaunch built an **outdoor RF coverage plan**. They uploaded Thacher’s campus map, selected the Moso Networks 5GOD2 radio, and generated an RF propagation model. The analysis showed that **a single 20-watt small cell could cover most of the campus**, while **two radios** would ensure complete coverage behind buildings and natural obstacles.

Armed with this data, the team scheduled an installation and field test for **September**. Ataya added the outdoor radio to TEC Launch’s existing Chorus tenant in the cloud—no local setup required.



The picture on the left shows the Thacher campus containing the location of the Chorus radio (note the baseball field and running track at the left edge.)

The RF plan is on the right. The Radio unit was placed at an elevation of about 1400 feet. The Moso 5G OD2 is industry first 4x4 integrated small cell. It can operate at a maximum power of 20 watts. It supports an embedded internal antenna as well as ability to connect to a high gain (omni-directional or sectorized) antenna. The plan shows that even at the farthest point from the radio, the signal strength was good (defined at -90 dBm or better).

The Deployment: Live in Minutes

Once Jason received the Moso Networks outdoor radio, setup was straightforward. He simply connected **power and Internet**, and within **four minutes**, the Private 5G network was live. SIM and eSIM-enabled devices connected instantly, including **Apple iPhones, iPads, Android devices, BEC routers, and Meraki Wi-Fi gateways**.

Jason recalled, “I was already impressed with the ease of Chorus, but adding an outdoor radio was exceptional. The network came online out-of-the-box, letting us focus on delivering the overall customer experience.”

To evaluate coverage, Jerry and Jason connected a Meraki gateway (bridging P5G-to-Wi-Fi) to a portable power source and a golf cart, driving across the campus to measure signal strength and throughput. Even without the external antenna (which hadn’t arrived yet), results exceeded expectations—strong signal continuity and reliable connectivity across large areas. “I wasn’t sure a single radio could extend this far,” said Jerry. “But I was pleasantly surprised by the coverage and throughput. It’s great that we can integrate with our existing devices—this really simplifies deployment.”



The Results: Simplicity, Coverage, and Future Expansion

The pilot achieved its goal: a single outdoor Private 5G radio provided wide, stable coverage across Thacher’s expansive campus and connected seamlessly to existing Wi-Fi infrastructure. Deployment highlights:

- Over **200 acres** of campus coverage
- **Plug-and-play activation** in under 5 minutes
- **Seamless integration** with existing Wi-Fi cameras and gateways
- **Low-latency, high-throughput** connectivity for real-time applications

A **production deployment** with two outdoor radios is now planned for **November**, extending complete outdoor visibility and reliability across the entire campus.

The Impact: A Blueprint for Safer Campuses

The Thacher School’s successful deployment is more than a technology pilot—it’s a model for schools and municipalities nationwide. By combining Ataya’s cloud-managed simplicity, Moso’s high-power radios, Thacher demonstrated how Private 5G can transform campus safety and operational efficiency.

With Ataya Chorus, K-12 institutions can now achieve enterprise-grade coverage and reliability at a fraction of the cost of traditional solutions.

The Vision: Simplicity and Scalability

To bring this vision to life, **Jason Thomas**, CEO of **TECLaunch**, began designing a new network architecture that could deliver reliable coverage and performance at scale. Having extensive experience with Wi-Fi and Ethernet, Jason knew that traditional systems couldn’t meet the challenge. He turned to **Ataya’s Chorus Private 5G** platform—a plug-and-play solution that combines the simplicity of cloud-managed Wi-Fi with the reach and reliability of 5G. Jason had previously deployed an indoor Chorus system and was impressed by its ease of use: “The experience was as simple as setting up a Meraki Wi-Fi network, but with far greater range and security.”

Recognizing the opportunity, he proposed a **proof-of-concept deployment** at The Thacher School, collaborating with Ataya and **Moso Networks**, suppliers of 5GOD2 (industry’s first 5G outdoor radio based on Qualcomm FSM 200 5G RAN platform).