

Capture Everything. Lose Nothing.

The Platform for Persistent Data Operations

The Challenge: Too Much Data, Not Enough Insights

Modern defense and enterprise networks generate data faster than most analysis platforms can consume it. When a system can't keep pace at the appropriate speed, it makes a silent compromise: it drops packets, truncates signals, or creates coverage gaps exactly where adversaries hide. The result is not just missed data, it's missed threats, lost forensic evidence, and degraded tactical advantage.

- Packet loss creates blind spots adversaries actively target
- Summarization destroys the forensic evidence needed for incident response
- Traditional appliance-based architectures are expensive to scale and operationally disruptive
- Security teams are forced to choose between capture speed, retention depth, and analytical fidelity

Who We Are

Axellio solves the data overload problem that plagues many networks. The moment a system drops or summarizes traffic, critical evidence disappears, and so does the mission advantage. Axellio's Xpress Platform™ prevents that from happening. Think of it as a Data DVR: record everything at wire speed, then let analysts and security tools consume it at any rate, at any time, with no gaps. Where competing solutions force a choice between capture speed, retention depth, and analytical fidelity, Axellio eliminates the compromise.

The Axellio Approach



The Xpress Platform™ is the content-agnostic software core underlying every Axellio product. It runs on standard COTS hardware and multiple flavors of Linux across physical, virtual, and cloud environments. No proprietary hardware required. At its heart is XpressFS™, a purpose-built streaming-data filesystem that provides faster I/O than ext4, XFS, or ZFS. It provides time-indexed retrieval, integrated compression, deduplication, and AES-128-GCM encryption, all at full line speed.

Five Structural Differentiators

1. **Record then distribute:** Capture to disk is fully decoupled from downstream tools. A slow or crashed application cannot cause packet loss.
2. **Lossless by design:** Quality of Service protected write priority reserves SSD bandwidth for ingest. Readers throttle; the recording never drops.
3. **Up to 20× storage reduction:** Discard encrypted payloads, analytically worthless without session keys, while preserving every header, handshake, certificate, and fingerprint detection tools rely on.
4. **Drop in for existing tools:** A libpcap compatible layer means Suricata, Zeek, Wireshark, Snort, and most other tools work unmodified from Day One.
5. **Two tier storage, queried as one:** Hot NVMe for immediate access, warm HDD or S3 for deep retention. Analysts query both with a single command, no format changes or vendor lock in with data being returned in seconds – not hours.

PacketXpress®

PacketXpress replaces the traditional TAP – Packet Broker – sniffer chain with a single platform that simultaneously captures, stores, and distributes every packet to every connected analysis tool - all with no data loss at any stage. PacketXpress captures traffic at 200 Gbps in a single 1RU server and distributes it through a libpcap-compatible layer, so existing SOC tools work without modification.

- Flow-indexed retrieval: weeks of archived packets queryable in seconds, not hours
- DVR-like playback and replay of pre- and post-event traffic at any speed
- Open API integration with many tools including Wireshark, Suricata, Zeek, Security Onion, SIEMs, and SOAR platforms

SensorXpress®

SensorXpress brings the same proven architecture to VITA49 RF/IQ signal data, giving SIGINT, ELINT, radar, and SDR teams the ability to record longer and at wider bandwidths, all without overloading downstream tools or disrupting existing infrastructure.

- Never miss a signal of interest: Continuous recording and distribution with no loops, gaps, or data loss
- Storage-backed replay at line rate for regression testing, signature development, and training
- Encryption at rest and air-gap capable operation for classified and tactical-edge environments
- Scales from sub-1U SWaP-constrained edge nodes to multi-rack datacenter on a single software stack

Why Axellio

Axellio is built for a world where missing data means mission failure. While observability vendors deliver insights and storage vendors archive, Axellio accomplishes both and keeps data continuously available, complete, and actionable for any tool, any analyst, any mission.

U.S.-owned and operated, ISO 9001:2015 certified, and holding multiple DoD ATOs for NIPR and SIPR, Axellio is trusted by the U.S. Military, Intelligence Community, and Fortune 500 enterprises worldwide.