

Axellio MobileXpress™

Portable Datacenter Performance for Any Mission



Modular and scalable data-center-level compute and storage performance for military, government, and public safety missions – the most computing power available today in any carry-on tactical data center.

Build for challenging mission environments

Whether you are operating missions in the military, government, or for public safety – tactical edge demands are becoming increasingly complex with the rising number of environmental, optical, medical, and chemical sensors creating large volumes of time-critical data processed in analysis applications demanding high-performance processing and storage.



Data center level performance

The need for fast decisions, often requiring delay-sensitive information, makes processing in the cloud or data centers often not feasible when requiring communicating across network infrastructure that is too slow, too far, or not reliable enough. Those missions require local enterprise data center capabilities in smaller size, weight, and power (SWaP) form factors to meet the need for fast deployment and configuration under tough operating conditions.

Portable – wherever the mission takes you

Axellio’s MobileXpress (AMX) provides an expeditionary compute platform through its high-density, converged server and storage platform in a portable form factor - small enough for your tactical mission, powerful enough to bring your data center along.

Axellio – Company Overview

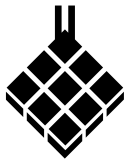
Axellio Inc. is a Colorado Springs, CO-based company that provides customizable, high-performance, high-density compute and storage platforms for government agencies and military organizations in need of high-performance computing in tactical mission environments. We design, integrate, and manufacture systems, products, and services using market-leading, innovative technologies, and off-the-shelf components to accelerate solution availability while increasing efficiencies and reducing procurement and operation costs. Our solutions are used by US military organizations for sensor-fusion, high-availability storage, high-speed streaming, and analytics, as well as cybersecurity.

Your Carry-on Tactical Data Center



Maximum Compute Power – Custom for your mission

A unique interconnect fabric increases the capacity and performance of common-off-the-shelf (COTS) components such as processing cores, memory, flash storage, GPUs, and FPGAs, reducing latency and dramatically accelerating throughput, compute, and storage capabilities.



Modular Flexibility – Scale to your mission needs

Internal modularity and field-replaceable modules allow stacking multiple units for deployment at scale. We will design and build to your requirements to optimize processing, storage, networking, and virtualization, within the SWaP envelop your mission requires.



Unprecedented Density and Portability – For rapid, tactical field deployment

Converged compute, storage, and network with reduced system SWaP in a TSA carry-on portable size wherever you need compute power at scale for fast deployment and decision making.



6 slots for expansion and flexible configuration

Support of 2 GPU platforms:

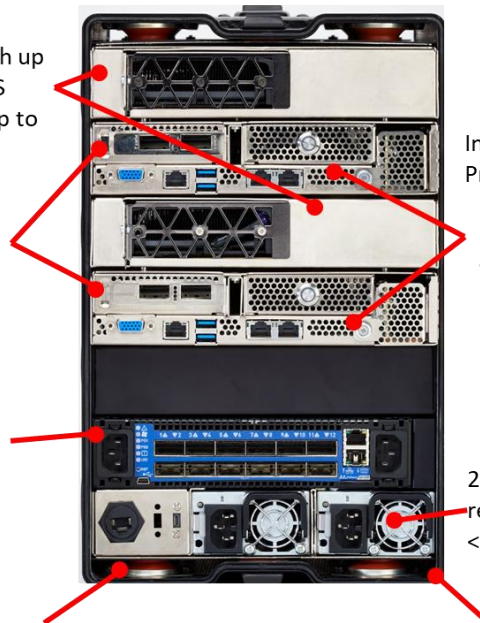
- NVIDIA® V100 Tensor Core GPU with up to 640 Tensor cores and 112 TFLOPS
- NVIDIA® Quadro RTX™ 8000 with up to 576 Tensor cores and 130 TFLOPS

Support for HHL standard PCIe AIC.

- Intel® Ethernet Network Adapter Dual port 10 and 40 GbE
- Mellanox and Chelsio 40/100 GbE

Mellanox SX1012 SDN switch

- Low latency layer 2 & 3 switch
- Up to 672Gb/s of non-blocking throughput
- Up to 48x10GbE or 12x40/56GbE ports



Intel Server cards for up to 2 Intel® Xeon® Processor:

- Up to 28 cores, 56 threads
- 2TB max memory size
- Up to 8 NVMe drives, with 30 TB total storage
- Dual 10GBase-T networking ports

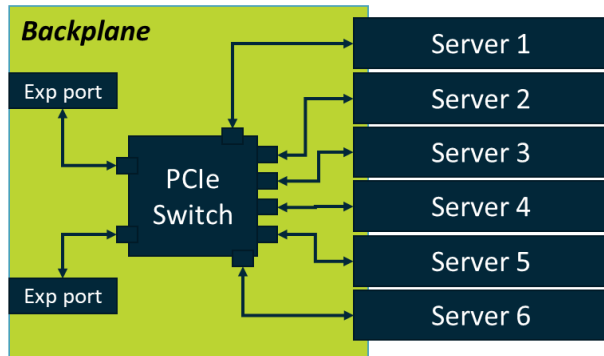
2x 2500W power sharing, redundant for power config <2500W

Shock absorbing mounting hardware

Rugged, lightweight carbon fiber enclosure; removable top and bottom lid with telescope handle and vibration reducing wheels.

XpressFabric – the High-Speed Backplane

Axellio developed a unique interconnect fabric, providing a high-speed backplane to maximize throughput while minimizing delay between the compute modules.



Servers connect over high-speed PCIe backplane using PCIe Non-Transparent Bridge technology to interconnect the servers. This enables a memory-mapped address window to directly access another server’s memory and storage, creating an ultra-low latency communication layer for this high-performance computing solution. With this connectivity fabric directly built into the case and the use of expansion ports, no NICs or networking HW is needed for inter-server connectivity, freeing up space for additional compute hardware.

Unprecedented Density and Portability – For Rapid, Tactical Field Deployment

MobileXpress is a fly-away kit for fast deployment and easy transportation build on a rugged, lightweight carbon fiber enclosure, in a TSA-standard carry-on size format with vibration isolating mechanical design.

Removable end caps with telescope handle and vibration-reducing wheels make for quick deployment while being stackable and extensible for deployment at scale.



Contact us

For additional information and configurations please contact us at:



<https://axellio.com/>



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