

FabricXpress® + Napatech

Large Scale, Real-Time Packet Capture and Playback

Delivering Tomorrow's Requirements, Today...

Data-In-Motion processing promises to unlock a wealth of information, enabling organizations to react to what's happening in the moment, rather than the "rear-view mirror" approach of batch processing. Streaming Analytics can fundamentally change how organizations approach risk management, regulatory compliance, client service, fraud detection, and other new solutions created every day from this data. Turning these data-streams into actionable information can be an expensive option for traditional enterprise computing approaches. To transform this data into value, a new approach with radically more performance and compute density is required.

FabricXpress® for Streaming Network Packet Capture and Analysis

In today's rapidly changing world of market reporting requirements, the need to have end-to-end visibility has never been greater. Complying with ever more regulations, dramatically increases the amount of data that must be captured, preserved, and analyzed in real-time. However, in addition to regulatory compliance there is enormous value to the organization in being able to triage latency issues to ensure that events are processed properly.

Axellio's packet capture and analysis solution integrates advanced Napatech FPGA SmartNICs accelerated network interfaces, with the latest x86 architecture and next generation NVMe on PCIe fabric solid state storage (SSD). By leveraging X-IO's unique FabricXpress platform, the result is a powerful multi-use solution offering, simultaneous packet capture and persistence, network analytics, alerting, and the ability to run real-time reporting even during the heaviest of traffic periods. With up to 500TB of dual-ported high-speed NVMe SSDs, the capture solution can support multiple 100Gbps interfaces with internal data rates of up to 60 Gigabytes per second (full duplexed.) Axellio's FabricXpress platform combines the latest advances in NVMe solid-state storage technology and Napatech FPGA SmartNICs to form a solution designed for the most demanding environments.

FabricXpress and Pandion for Streaming Analytics

Streaming analytics enables financial organizations to extract immense value from data-in-motion in ways that traditional approaches cannot satisfy. Streaming analytics allows companies to do event processing against massive volumes of data streaming into the enterprise at high velocity. Data streams can contain immense value for the organization but the challenge of handling such large amounts of real-time I/O has meant that traditional IT infrastructures have been required to compromise by separating ingest and analytic operations (increasing costs for hardware and software).

Napatech Pandion provides a rich environment for turning complex analytics on massive-scale streaming data into a valuable assets for financial institutions. With a rich set of analytics, visualization, and financial market tools, Pandion on the FabricXpress Platform enables higher volumes of data to be processed with a fraction of the hardware required from traditional compute approaches.

Flexible, Reliable, Scalable

Streaming analytics enable financial organizations to react in ways and timeframes that were not possible just a few years ago. Traditional compute approaches have made these solutions increasingly more expensive and difficult to maintain, driving up the Total Cost of Ownership. By tightly coupling industry leading solutions from Napatech, Axellio gives financial organizations a powerful, flexible, and scalable solution that reduces cost/risk and unlocks the true power for analytics on streaming data.



Specifications

Configuration Options	Each system includes two server modules, specifications listed are per appliance			
Compute	CPU: 4 x Intel E5-2620v4 32 cores/64 threads @ 2.1GHz	CPU: 4 x Intel E5-2650v4 48 cores/96 threads @ 2.2GHz	CPU: 4 x Intel E5-2667v4 32 cores/64 threads @ 3.2GHz	CPU: 4 x Intel E5-2699v4 88 cores/176 threads @ 2.2GHz
Memory	32GB to 2TB RAM			
Network Connections	4x100 GbE			
Storage Capability	1– 6 FlashPacs Each FlashPac holds 12 Dual Ported NVMe SSDs (800, 1600, 3200 or 6400 GB) Total capacity: 9.6TB – 460TB I/O performance capacity: Over 60GB/s transfer rate, 12M+IOPS, fully populated Storage Capability, share between server modules			
Co-Processor Support (Optional)	PCIe			
Form Factor	2U (H 3.5" x W 17.25" x L 36.5")			
System Cooling	7x60mm dual stage counter rotating heavy duty fans with PWM fan speed controls			
Power Supplies	80 PLUS TITANIUM Grade Dual Redundant Power Supplies @100-120v: Dual 1100W Out @100-120V, 15A + Dual 1000W Out @100-120V, 10.5-12.5A, 50-60Hz @230-240v: Dual 1500W Out @230-240V, 11A, + Dual 2000W Out @230-240V, 9.8-10.0A, 50-60Hz			