



# Streaming Analytics Tools on FabricXpress

*Changing Performance in the Financial Sector*

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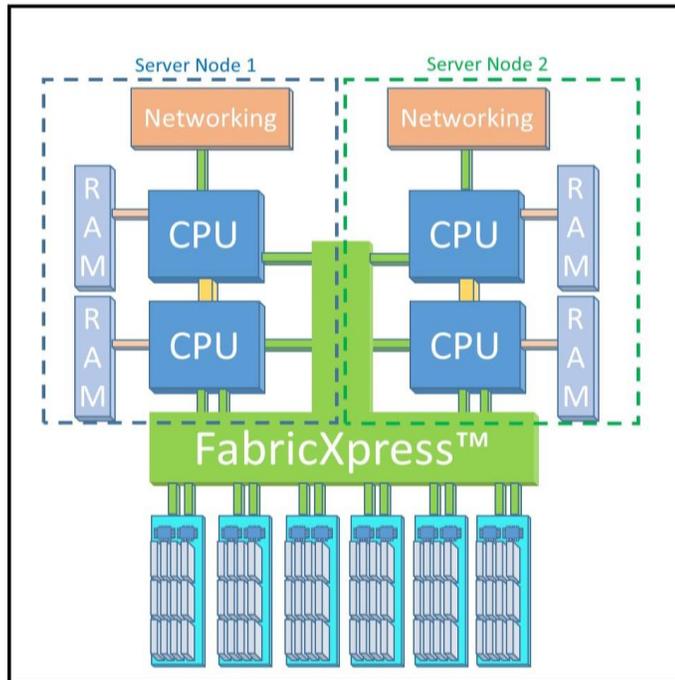
Director, Technical Marketing at Axellio Inc.



Deployable | Affordable | Secure

2U Form Factor

>12M IOPs & 60GB/s Throughput



Up to 72 Dual Port NVMe

88 Intel CPU Cores

Holds 5/17 records across all STAC-M3 benchmarks

- 88 Cores
- 1TB RAM
- 70 NVMe SSDs
- CentOS 7.3
- kdb+ 3.5 Time Series Database
- SUT ID: KDB171020



## STAC-M3 Audited Configuration:

One 2U Axellio Edge Computing Platform with

### Continuous Computing

- Continuous Risk Management (Credit, Market, Operational, Liquidity, Fraud)
- Continuous Customer Engagement
- Continuous Market Monitoring

### Trade Execution efficiency

- Perform real-time pre-trade analytics
- Build real-time transaction cost models to decrease execution costs
- High speed message routing
- Best execution monitoring & reporting for MiFID II compliance

### Fundamental Review of the Trading Book (FRTB)

- More Models, More Sophistication, with greater accuracy and quality
- Implications for Rates, Credit, FX, Equity, and Commodity asset classes
- Combined Time-Series market data, Reference, and “real” price data (Internal Capital Models)
- Reporting by the end of 2019



redis



kafka

## Platform designed around high performance data architecture

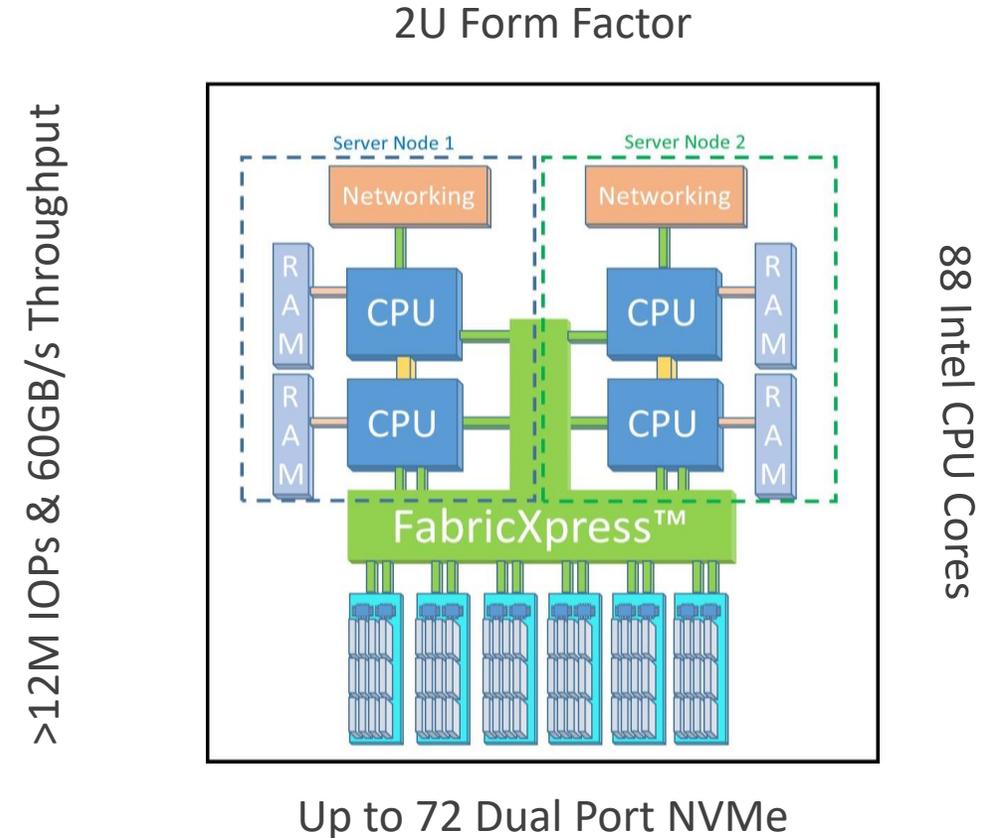
- High speed connection between CPU, RAM, and Storage
- Get to the answer faster, with less hardware

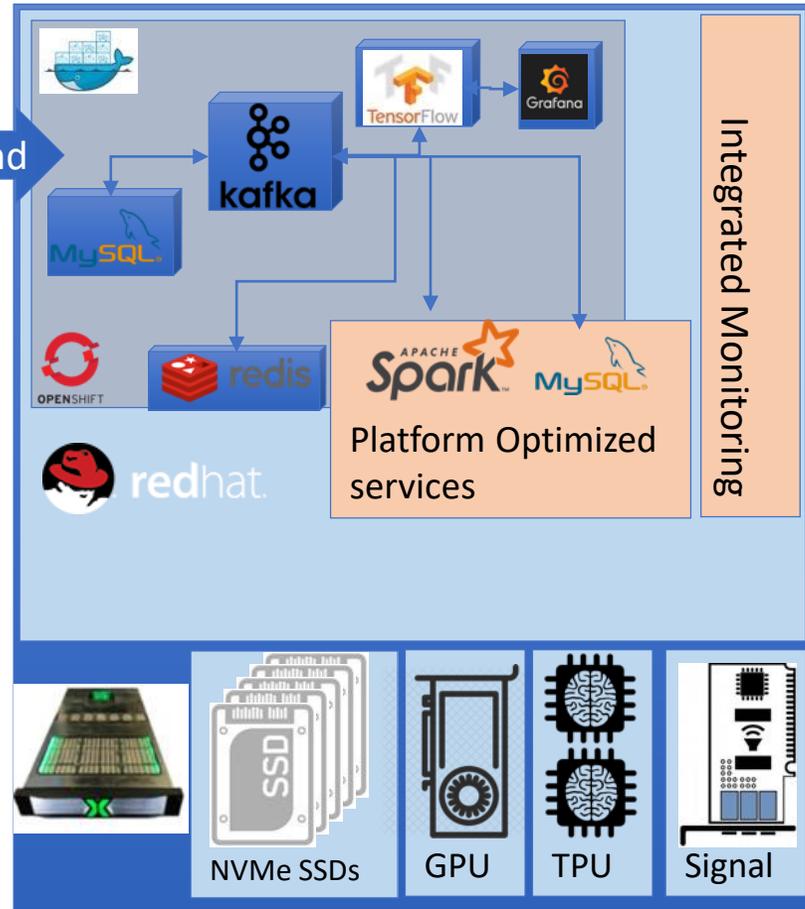
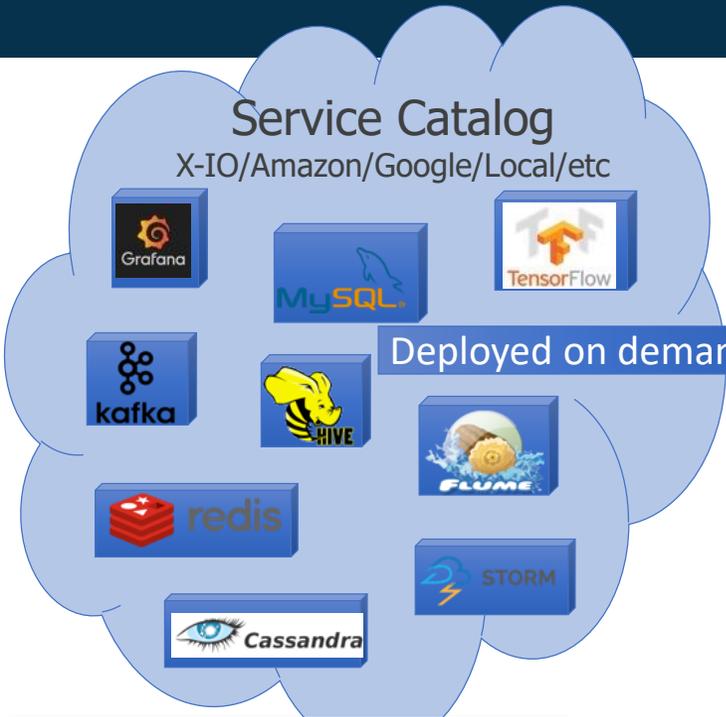
## Customizable platform for the application

- CPU, RAM, and SSD are completely configurable
- Support for Add-in cards (GPU, TPU, FPGA)

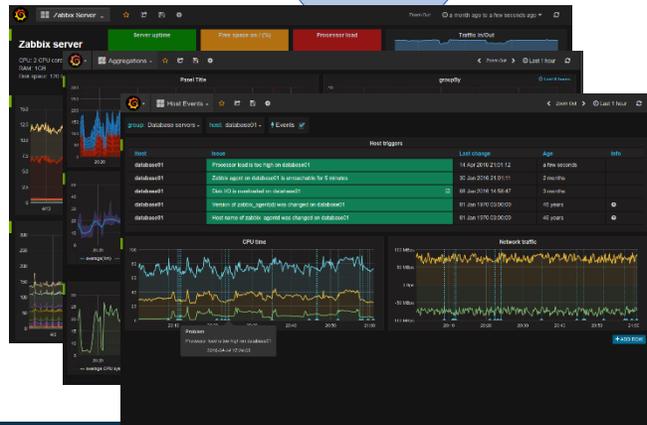
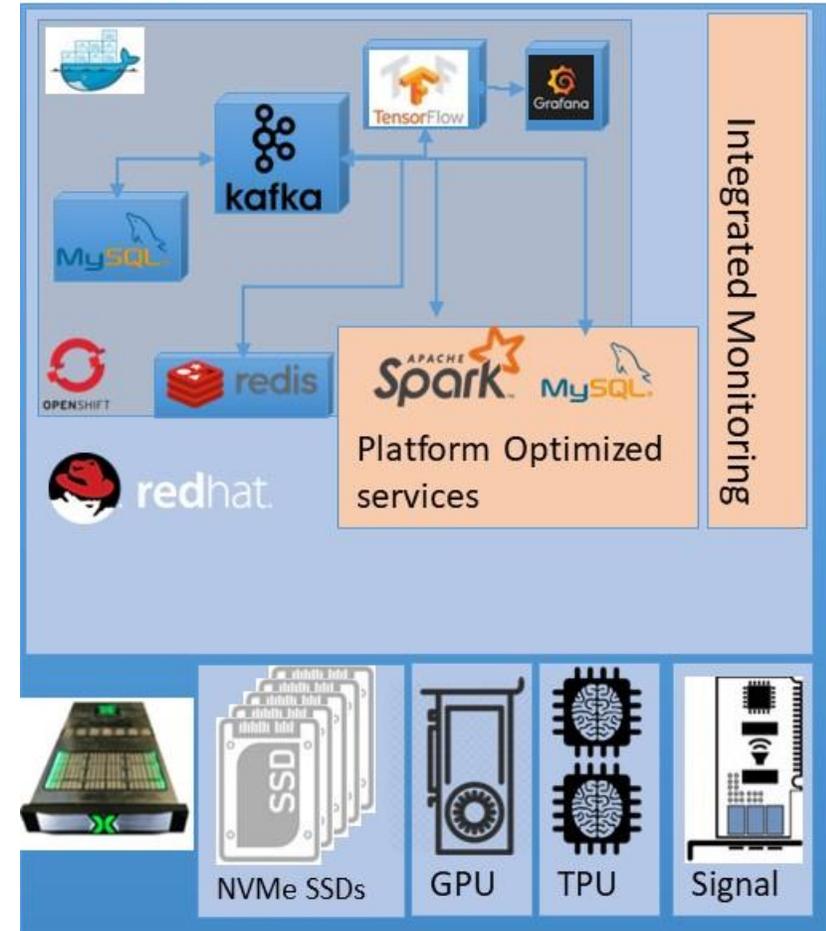
## Flexible deployment options for different software stacks

- MicroCloud / MicroDataCenter
- Hyper Converged Infrastructure (HCI)





1 to N Nodes...



## Containerized Yahoo Streaming Benchmark

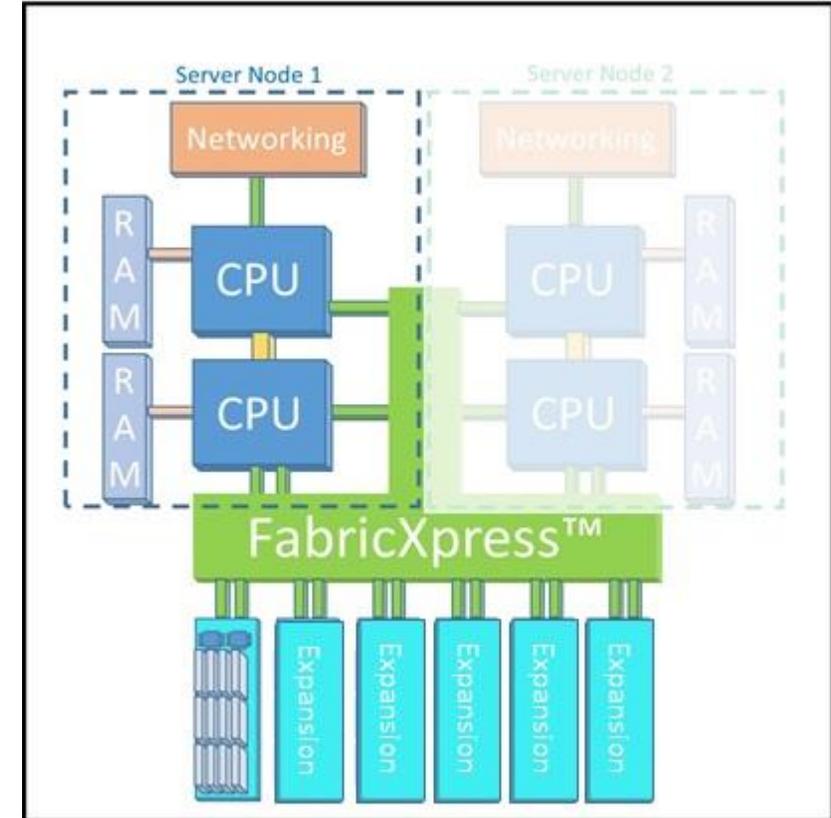
- Benchmark Application
- Streaming Data Infrastructure
- Monitoring Infrastructure

## FabricXpress

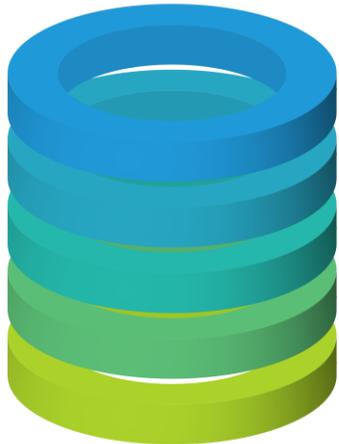
- 1 Server Node
- 2 Processors
- 16 Cores
- 128GB RAM

	Yahoo	Axellio
Number of Nodes	25	1
Number of Processors	50	2
Total Number of Cores	200	16
Rack Units	25U	2U
Power Required	7500w	700w
Max Number Messages/Sec	170,000	<b>200,000</b>

Not STAC Benchmarks



- Unparalleled compute and storage bandwidth
- Up to 500TB and up to 2 NVIDIA Tesla GPUs (up to 42Tflops) , in a single 2U platform
- High performance SQL database and storage with linear scalability
- Advanced storage engine and I/O reduction techniques including on-the-fly compression and smart metadata collection





## Address more data in real time

- Streaming Analytics close the loop on observations found in the data lake
- Detect Fraud in real-time, not batch processes
- Manage risk with a broader view of the landscape
- “Focused” customer services

## Drastically reduced hardware

- Greatly simplified environment
- Less Power costs
- Less Rackspace
- Less Management Costs
- Less CapEx/OpEx and Software licenses

## High Performance for faster decision making

- Leverage more data for better fidelity results
- Create more valuable (and complex) reports in real-time
- Support Stream, Transact, and Load (STL) operations in front of the data lake
- Generate and report on more KPIs with less costs



AXELLIO

# WHERE SPEED MEETS NEED

REAL-TIME  
DATA | INSIGHT | RESULTS

For more Information:  
☑ for Axellio Inc.

