

“Outsourcing these calculations to Hanweck allows Ballista to focus on trading, rather than market data, according to Ballista’s Marques. Prior to implementing VoleraFEED, Marques notes, Ballista relied on established code libraries to run the options calculations, but the ATS found that it is faster and more cost-effective to outsource the computations.”

Wall Street & Technology
March 11, 2009



The standard Volera hardware configuration consists of 3 NVIDIA S1070s and is capable of processing the full OPRA feed in less than 10 milliseconds.

HANWECK ASSOCIATES, LLC, leads the pack in applying cutting-edge technology to the complex quantitative problems faced by today’s financial institutions. Our clients include top-tier banks, broker/dealers, asset managers and hedge funds from around the world.

Cutting Edge Technology

Hanweck Associates pioneered commercial GPU-based computing solutions for the financial industry. As an established leader in high-performance computing (“HPC”), our products and services bring tomorrow’s technology to bear on today’s problems.

Experienced Team

Hanweck Associates’ team brings over 40 years of hands-on expertise in financial markets and technology services. Our experience as traders, strategists, researchers and developers at major financial institutions spans all major asset classes and products.



**LOW-LATENCY
REAL-TIME
OPTIONS
ANALYTICS**



www.hanweckassoc.com

61 Broadway, Suite 1608 New York, NY 10006

646.414.7274 info@hanweckassoc.com



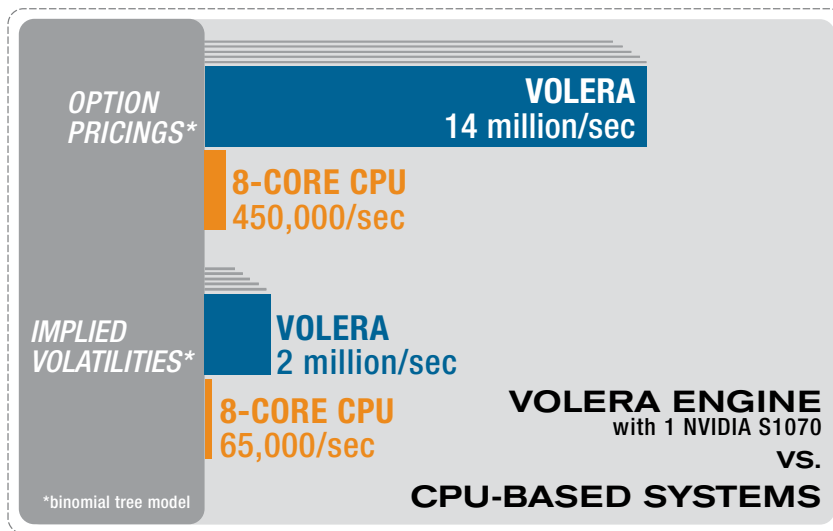


LOW-LATENCY REAL-TIME OPTIONS ANALYTICS ENGINE

Volera™ is **the** high-performance engine for real-time, low-latency options analytics, delivering extreme throughput at a fraction of the cost of conventional grid computing systems.

Raw Performance

Fueled by cutting-edge GPU technology, Volera powers through real-time implied volatilities and greeks on the entire U.S. OPRA universe...with just 10 millisecond latency.



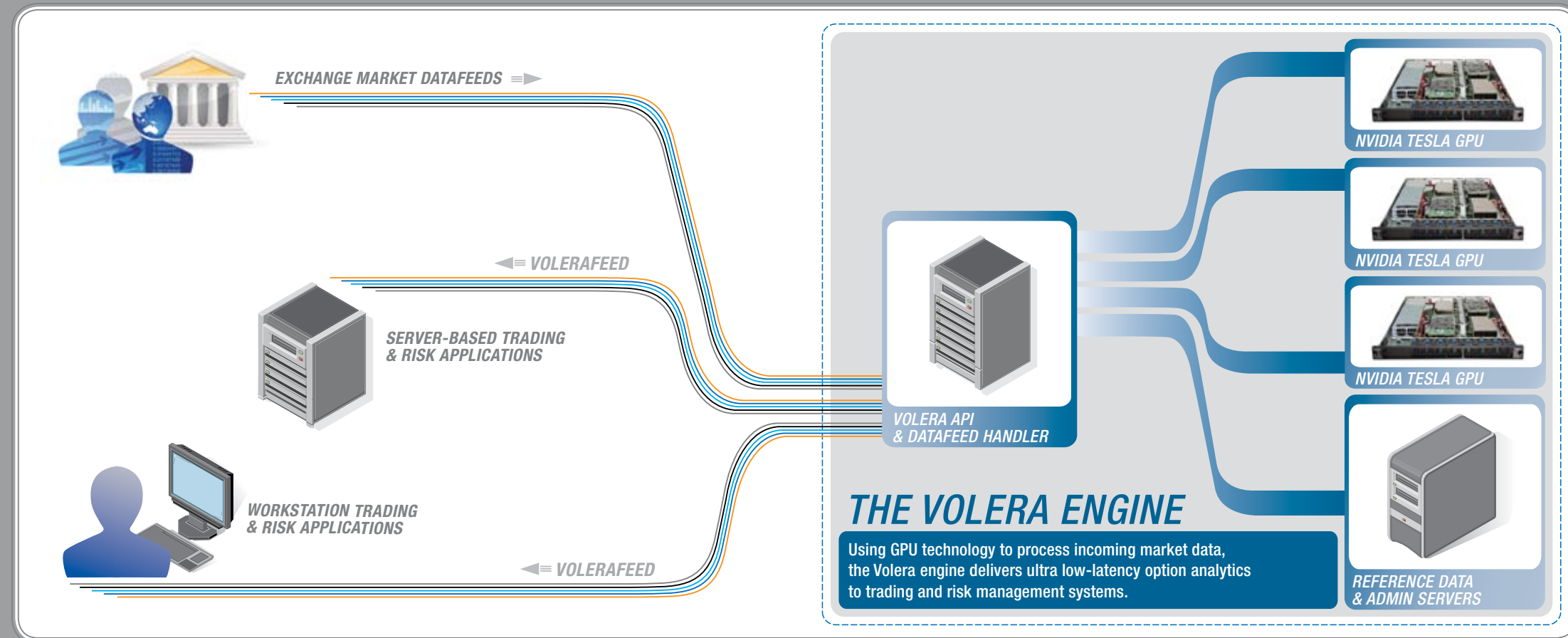
Reduce Operational Costs by 90% compared to conventional CPU-based systems

Industry Standard Analytics include binomial tree, Heston, SABR, Whaley and Black-Scholes (custom models are available).

Applications

- Automated options market making
- High-frequency / algorithmic trading
- Volatility statistical arbitrage
- Enterprise-level options analytics engine

Tesla and CUDA are a trademarks of NVIDIA Corp.



VOLERAFEED

LOW-LATENCY REAL-TIME OPTIONS ANALYTICS DATAFEED

VoleraFEED™ delivers real-time, low-latency options analytics as a datafeed through third-party vendors and ticker plants.

Full OPRA Coverage

Real-time, low-latency datafeed of implied volatilities and greeks, covering the entire U.S. OPRA universe: 300,000+ options on 3,500+ underlying stocks, indices and ETFs.

Analytics as a Service

Options analytics as a service removes the computational burden from the CPU, freeing your system resources to focus on trading functionality.

Integrated with Leading Vendor Products

VoleraFEED is integrated with leading third-party systems, including ACTIV Financial, Wombat, PlusFeed, Mixit, Portware, and many more.

VOLERAFEED+

ENHANCED REAL-TIME ANALYTICS DATAFEED

VoleraFEED+™ enhances the core VoleraFEED service with high-touch, real-time analytics:

- Interpolated constant-maturity volatility surfaces
- Dispersion analytics
- Options-based credit default probabilities
- Fixed-income analytics

VOLERAFEED ONDEMAND

CONFIGURABLE HIGH-PERFORMANCE OPTIONS DATAFEED

VoleraFEED On-Demand™ takes VoleraFEED to the next level, allowing users to specify model parameters on the fly (e.g., dividends, borrow rates, interest rates, model type), yet receive the customized analytics as a datafeed service.