EVERY NANOSECOND COUNTS

GAIN A COMPETITIVE EDGE WITH
HIGH-PERFORMANCE COMPUTING SOLUTIONS
FROM CDW FINANCIAL SERVICES
TIME IS OF THE ESSENCE

Invest in your IT infrastructure and multiply the returns

In the turbo-charged world of capital markets, time is money — and maximum speed and efficiency drive profitability. Competition is fierce and increasing day by day. Securities and investment firms today are being challenged to the core by a confluence of dynamics directly impacting these critical success factors.

A recent IPC survey has found that technology spending in the financial services sector is being driven by the need to improve efficiencies and reduce costs, rather than simply complying with new regulations.

TECHNOLOGY IS TOP OF MIND IN CAPITAL MARKETS

A RECENT ISITC SURVEY FOUND THAT:

More than two-thirds of investment managers, broker/dealers and custodians expect to increase their spending on technology in the next 2 years.

68% plan to improve infrastructure and processes.

40% stated that adhering to new regulations is their highest priority for 2012.

Three-quarters of respondents expect to increase trading technology spending in 2013.

Nearly half said they will invest in new technology to support electronic trading.

Top technology priorities:

- 16% network infrastructure
- 14% trading support
- 12% HFT
- 11% algorithmic trading

How can capital market firms keep performance up and costs down, while maintaining a competitive edge?

The escalating complexity of the marketplace demands higher-speed, larger-volume analytics to capture, analyze and visualize data for confident investment and trading decisions. This data must meet Dodd-Frank compliance and risk requirements and be rapidly processed, managed, stored and secured in real time. As if that weren’t enough, new governance rules are expected for trading technology. IT infrastructures are being strained beyond their limits to keep pace with these growing demands.

Source: International Securities Association for Institutional Trade Communication survey
The benefits are weighted in your favor

Scaling up your IT infrastructure is a must in today's exacting marketplace, when nanoseconds can be the deciding factor in profitability.

That's where CDW's Financial Services team comes in. Our experts can find the right HPC solution and supporting services to help you:

**ACCELERATE TRANSACTIONS AND PROCESSING**
- Speed up trade processing while providing real-time risk analysis.
- Drive transaction times for high-frequency trading (HFT) down to nanoseconds.
- Achieve ultra-low latency and gain a competitive edge.
- Maximize input/output performance (IOPs).

**STREAMLINE MANAGEMENT, PROCESSING AND ANALYSIS OF VAST DATA VOLUMES**
- Perform speedy real-time market analysis, risk analytics and portfolio calculations.
- Ensure accurate, trustworthy analytics at ultra-fast speed.
- Quickly assess financial exposure and credit risk before finalizing transactions.
- Optimize computation and server processing.
- Bolster future data growth and its escalating demands on networks and storage with a reserve of abundant computing power.

“The in-person time is important. People want to trust, to believe in someone, to vet their decision with someone else. The level of trust is there with CDW.”

In his years in the industry, Sonny Baillargeon, Chief Technology Officer for Pico Quantitative Trading, has learned that relationships are important above all. He likes the fact that he can meet with his CDW Financial Services account team on a regular basis.
CDW supports more than 7500 U.S. capital market firms with the industry’s broadest and deepest technology solutions and services. Your dedicated CDW Financial Services account team can help assess and create a powerful IT infrastructure that supports strategies focused on low latency, global market integration and visibility, customer service, competition and risk management.
COUNT ON CDW FINANCIAL SERVICES — THE HPC EXPERTS

Your dedicated CDW Financial Services account team knows a customized HPC solution is built on the right mix of technologies. Our industry-leading technology partnerships with Solarflare, HP, Fusion-io Inc., Emulex, Belkin and many others allow us to bring you the brands you recognize and trust.

We’ll help you navigate your options with an unbiased view, to find the most reliable and cost-effective HPC solution for your needs. We’ll help your organization boost profitability and deliver a faster ROI with technology that:

• Is easy to manage, deploy and maintain.
• Supports efficient applications that expedite decision making, improve transaction processing and lower costs, including capital expenditures and operating costs.

THE TECHNOLOGY STACK FOR FINANCIAL HPC

Creating the optimal HPC solution requires a blend of the right technology that facilitates the need for speed through processor optimization and reduction of latency. It can also accelerate data access and help tightly synchronize timing between a global clock source and consumer/client devices.
Traders using super high-speed computers executed as many as 500 trades per second at the daily openings and closings of commodity markets during the past year, said Bart Chilton, a commissioner on the Commodity Futures Trading Commission.

Source: USA Today, June 24, 2013
**Solarflare SFN6122F**

**CDW 2611418**

**CALL FOR PRICING**

- With two 10GbE ports and 40 Gbps of full, bidirectional line rate, throughput is delivered to critical applications
- Offloads for compute-intensive tasks ensure minimum burden is placed on the server CPU
- Supports Solarflare OpenOnload®, a unique application acceleration middleware, providing direct sockets connection to applications

**HP ProLiant DL360e Gen8 Server**

**CDW 2732142**

**CALL FOR PRICING**

- Memory: 8GB std., 384GB max. (DDR3)
- Hard drive: none ship std.; up to eight hot-pluggable SFF SAS/SATA drive bays available; 9.6TB max. storage
- 10MB Level 3 cache
- HP 1Gb Ethernet 4-port 366i adapter

**Emulex® OneConnect™ Universal Converged Network Adapter**

**CDW 2377663**

**CALL FOR PRICING**

- This UCNA is part of a single-chip, high-performance 10Gbps Ethernet product family
- Provides network and storage connectivity with multi-function server adapters
**ELIMINATE I/O BOTTLENECKS AND LATENCY LIMITATIONS**

Fusion-io ioDrive2 1.2TB

CDW 2534369

**CALL FOR PRICING**

- Minimize latency and maximize bandwidth and IOPS
- Dramatically improve application performance
- Accelerate database performance up to 10X
- Improve response times up to 40X
- Deliver the performance of thousands of disk drives in a single server
- Capacities from 365GB to 2.4TB

**MAXIMIZE YOUR NETWORK SPEED WITH HIGHER BANDWIDTH**

Belkin

**CALL FOR PRICING**

- Two male 50-micron gold-plated RJ45 connectors
- Snagless molds to protect the RJ45 tab
- Designed for VoIP, file transfers and data centers
- Performance tested to exceed 550MHz

**RACK CONFIGURATION SERVICES**

CDW Services

**CALL FOR PRICING**

- Our certified technicians can mount and configure your network equipment, including servers, blade servers, routers, switches and cabling, into a rack structure before shipping
- Be ready to go, right out of the box
- We can build an on-demand solution customized to your exact specifications

**CONTACT CDW FINANCIAL SERVICES TODAY**

To learn more about HPC solutions, contact your CDW Financial Services account manager, call 888.706.4239 or visit CDW.com/financial-solutions.
What trends or challenges are you seeing with your capital market customers that are driving the need for high-performance computing?

Market conditions are pushing firms to be latency aware, and they’re also requiring them to be accurate. They’re focused on balancing their core processing and computing power. Simply put, all eyes are on the servers.

We’re also seeing capital market firms researching storage. The volume, variety and velocity of data continue to increase. Clients are working on getting the right data, speeding up the data retrieval process, and then determining how to use these massive amounts of data.

What types of technology are these customers turning to CDW for to serve their HPC needs?

When clients are looking for a change within the hardware, we review the server and networking level. The HP DL360 SE server is very popular and allows us to bring in a workstation processor, which is much faster at core compute and processing power. Also, many of our clients are beginning to look at the value of adapting their applications into a multi-core setting. Some of the new advancements like Intel’s increase in core processing are helping the IT team begin to look at a variety of strategies within their servers.

Describe how a CDW account manager works with a capital market firm to assess its HPC needs and plan a strategy.

Building a foundation of trust is the first and most important step. We want our customers to know they can count on us. They can also count on the national base of top-notch engineering support we can tap within our national partner network.

Providing the right solution to meet each client’s unique needs is our top priority and requires an in-depth understanding of its organization and a review of the current infrastructure. We typically conduct a server, storage and networking review. Then we ask some key questions, such as:

- What is your objective as an organization?
- What market(s)/exchanges are you trading in?
- What is your organization staffing/foundation?
- How important is latency to your goals?
- How bleeding-edge do you want to be?
- When is the best time for you to procure future technology?

Once we’ve done the assessment, we design a customized plan to meet the client’s unique needs and challenges.
What top tips or pointers would you give customers looking to enhance their HPC initiatives?

CDW offers customers an uncommon advantage in the marketplace. As a close partner to the leading brands in technology and as advisor to a large number of financial services firms, CDW is in a unique position to serve them. We see new products as our partners create them, and we resolve many of the most challenging technology problems in the industry. This, in turn, helps us create a bridge between the client and partner companies, leading to quick problem resolution and even the creation of new products. This is one of the best value-adds CDW can provide to current and potential clients.

To learn more about how HPC solutions can help capital market firms protect their data, scan this QR code or visit CDW.com/hpc to download the new white paper, “High-Performance Computing: Capital Markets.”

EXPERT GUIDANCE WITH TIMELY SERVICE

Building out the right HPC solution to provide you with the speed, power and security you need requires expert knowledge, experience and the right products. You can count on CDW Financial Services to assist you with:

**ASSESSMENT/PLANNING/DESIGN.** Up-front consulting and collaboration to assess your current IT infrastructure, and then mapping a customized HPC strategy that will meet your unique IT infrastructure solution requirements.

**CONFIGURATION.** CDW experts can pre-assemble your HPC hardware and software components to ensure your IT solution is ready to deploy upon arrival.

**INSTALLATION/DEPLOYMENT.** Our expert engineering and implementation support team can help you get your HPC solution up and running ASAP without missing a trade.

**PRODUCT LIFECYCLE SUPPORT.** Whether you need assistance with staffing and training, break/fix maintenance agreements, extended warranties or other support to protect your HPC IT investment, CDW is with you every step of the way.