Is your technology up to the challenge? Optimize your IT infrastructure with **HPC SOLUTIONS FROM CDW FINANCIAL SERVICES.**
The demands of the marketplace are relentless. Competition is at an all-time high, and capital markets firms are under constant pressure to do more with less. The need for speed increases exponentially by the day, and so do the volume and variety of complex data required to analyze and process financial exposure and risk in real time. And Wall Street watchdogs are getting ever more vigilant about compliance and regulations.

IT infrastructure and budgets are being stretched to the limits to meet these escalating demands. What can capital markets firms do to cost-effectively harness the storage, processing power, network support and innovative technology they need to stay on the bleeding edge?
An IDC survey on high-performance computing (HPC) found that:

**HPC IS ON THE RISE**

- **67%** of HPC sites surveyed perform big data analysis on their HPC systems.
- **HPC application software will command a higher percentage of HPC budgets.**
- **Storage is the fastest-growing technology at HPC sites.**

*Source: IDC Worldwide HPC End-User Study, 2013*

**HPC DELIVERS RESULTS**

- **85%** of traders say technology has increased trading efficiency.
- **88%** also claim technology has increased system reliability.

*Source: IPC Systems Survey conducted at TradeTech, 2013*
INVEST NOW IN ADVANCED I.T. THAT PAYS OFF IN DIVIDENDS

Investing in a scalable, high-performance IT infrastructure is a must in today’s ultra-fast, ultra-competitive marketplace. The right high-performance computing solution can help capital markets firms deploy innovative technologies to make faster, better decisions. CDW’s Financial Services team has the expertise and supporting services to help you:

**ACCELERATE HIGH-FREQUENCY TRADING**
- Drive trade processing time down
- Ensure accurate transaction tracking and time synchronization

**INCREASE WORKLOAD CAPACITY**
- Easily manage the increasing volume, variety and velocity of complex data
- Perform rapid-fire, real-time market risk analysis and portfolio calculations for optimal risk reduction
- Gain a competitive advantage with accelerated data retrieval
- Support critical third-party applications

**CONTAIN COSTS WHILE MASTERING COMPLIANCE**
- Secure the integrity, accuracy and availability of critical data to meet compliance mandates
CDW supports more than 7500 U.S. capital markets 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.
Creating a premium HPC solution requires a blend of the right technology to facilitate the need for speed, enhance low latency, accelerate data access and optimize the financial stack.

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 help expedite decision making, improve transaction processing and reduce costs, including capital and operating expenses.
- Enhances level of service with critical applications.
CONSIDER THE CLOUD — A POWERFUL I.T. RESOURCE

67% of investment firms plan to increase their investment in IT infrastructure in 2014 — and much of this spending is likely to be aimed at setting up private clouds.


PUBLIC CLOUD PLATFORMS ARE BECOMING MORE POPULAR AS A MEANS OF ACCESSING POWERFUL COMPUTING RESOURCES WITHOUT HAVING TO MAKE LARGE CAPITAL INVESTMENTS.


SITES USING CLOUD COMPUTING TO PROCESS HPC WORKLOADS ROSE FROM 13.8% IN 2011 TO 23.5% IN 2013, ACCORDING TO THE 2013 IDC WORLDWIDE HPC END-USER STUDY.


To learn more about how HPC solutions can help capital markets firms protect their data, download the new white paper: “High-Performance Computing: Capital Markets.”

CDW.com/hpcwhitepaper
Building out the right HPC solution to provide you with the speed, power and security you need requires expert knowledge, experience and the right support. 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 the 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, or extended warranties to protect your HPC investment, CDW is with you every step of the way.

**NETWORK ASSESSMENT.**
Our CDW team of experts can help you jump-start your next network optimization project, beginning with a network audit to determine the best strategy to meet your network goals.

**PENETRATION TESTING.**
CDW can help expose computer and network vulnerabilities to determine whether unauthorized access or other malicious activity is possible.

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**HEAR WHY CUSTOMERS CHOOSE CDW FINANCIAL SERVICES**

“We wouldn’t be in business if we didn’t push the envelope and innovate.”

Sonny Baillargeon,
Chief Technology Officer, Pico Quantitative Trading

Read about how this multi-asset trading service, Pico Quantitative Trading, chose CDW and HPC technology to help its business grow.

[CDW.com/casestudyhpc](CDW.com/casestudyhpc)
Q: What industry trends are impacting capital markets firms and their HPC needs?
A: For a number of years, there’s been a heightened focus on reducing latency. This is particularly important for electronic trading, where latency directly impacts profitability. Electronic trading is like a race — it’s all about speed and who can execute the trade most quickly. But capital markets firms are realizing latency is much broader than this. Latency affects computer efficiency — not only for trading, but also for optimizing data center and network performance.

Q: How should capital markets firms deploy low latency to optimize their network performance?
A: Capital markets firms are constantly running complex analytics problems, which requires a large number of servers. The rate at which you can complete the analysis depends on how many servers you use, how much network performance you get from those servers, and also their speed. Having a low-latency, high-performance network allows you to speed up analytics and reduce costs by using fewer servers.

Q: What key points should capital markets firms keep in mind when planning their HPC strategies?
A: When evaluating HPC technology, make it as close as possible to real deployed applications. Avoid relying on micro benchmarks, which behave very differently from real applications. Flexibility is also critical with the rapidly evolving technology landscape. Choose options that will enable you to simplify your infrastructure, but also allow you to add additional features down the road. This reduces your up-front investment.

Q: Where do you see HPC heading over the next few years?
A: The focus on low latency has lessened, whereas the increments of improvement are now relatively small and greater improvements are being made in other areas like software. Innovations in network adaptors are increasing flexibility, and helping manage and spread loads efficiently. This efficiency is enabling a move into virtualization. Applications that had previously run on dedicated servers can now be moved onto virtual machines.

WANT TO LEARN MORE?
Watch the high-performance computing webinar with David Riddoch at CDW.com/webinarhpc.

EXPERT Q&A
DAVID RIDDLE
CHIEF ARCHITECT, SOLARFLARE

CDW Financial Services is a proud sponsor of the Securities Industry and Financial Markets Association (SIFMA).
A COMPREHENSIVE SOLUTION FOR TODAY’S MARKET CONDITIONS

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 Fusion-io, HP, Riverbed and many others allow us to bring you the brands you recognize and trust.

Riverbed® Steelhead® EXA 1160
Branch-in-a-box WAN optimization
CDW 2617918

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• Combines WAN optimization, virtualization and storage consolidation to enable organizations to meet the needs of the active branch office
• More memory, disk and CPU to support the most intensive workloads with high-performance SSDs
• VMware®-based platform runs virtually any local service or application on a single box
• Consolidate branch office services to simplify monitoring and management

Fusion-io ioDrive2 1.2TB
Eliminate I/O bottlenecks and latency limitations
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• 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
• Increase capacities from 365GB to 2.4TB
**HPSmartBuy**

**HP ProLiant DL380p Gen8 Server**

Protect your server investment and extend uptime

Two Six-Core Intel® Xeon® E5–2640 Processors (2.50GHz)

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- Memory: 16GB std., 384GB max. (PC3L–10600R DDR3)
- Hard drive: none ship std.; up to 25 hot-pluggable SFF SAS/SATA drive bays available; 25TB max. storage (with optional SFF drive cage)
- 15MB Level 3 cache
- HP Ethernet 1Gb 4-port 331FLR adapter

**HP 8206–44G–PoE++–2XG v2 zl Switch**

High-performance, full-featured, highly available modular switch

CDW 2251509

CALL FOR PRICING

- Provides platform technology, system software, system management, application integration, wired and wireless integration, network security and support with premium software
- Core, distribution, mission-critical access layer
- Advanced high-availability AllianceONE integrated switch
- Layer 2 to 4 and intelligent edge feature set
- Scalable 10/100/1000 and 10–GbE connectivity

**HP P2000 G3 SAS MSA Array System**

Low-cost, consolidated storage solution

12-Bay (LFF SATA/SAS), 2U Rack, 36TB System Capacity, Diskless

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- Dual 6Gb SAS controllers for higher data protection
- A wide choice of drive types for a higher ROI
- Grow storage as demands increase, up to 192TB
- Includes 64 snapshots standard and volume copy cloning capability enabled
- Reduced time to operation with easy and secure deployment

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1 HP Smart Buy savings reflected in advertised price. HP Smart Buy savings is based on a comparison of the HP Smart Buy price versus the standard list price of an identical product; savings may vary based on channel and/or direct standard pricing.


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