



HP Trader Desktop Solution

A solution brief from HP

How does a trading operation maintain a competitive edge, leverage current technology, and improve productivity and performance—all while reducing costs and exposure to operational risk?

Gain powerful benefits

The HP Trader Desktop Solution is designed to make trading operations more agile, efficient, cost-effective, and secure through simplification, standardization, integration, and modularity. The HP solution can help:

- Solve trading room power, space, and cooling problems
- Dramatically reduce MAC costs
- Improve competitive edge
- Facilitate multi-asset class and algorithmic trading
- Reduce latency
- Reduce maintenance costs and trader downtime
- Improve security
- Integrate business continuity and disaster recovery

The Trader Desktop Solution is part of the comprehensive portfolio of HP solutions for trading operations. With this compilation of trading desk products and services, HP enables its trading desk clients to leverage technology for a competitive edge.

The HP Trader Desktop Solution

To provide its clients with a single partner for trading desk technology, HP has assembled workstation products, software, services, and partner technology to deliver an integrated, end-to-end solution for the trader desktop.

HP innovation: The Blade Workstation for remote trading environments

- The HP ProLiant xw460c Blade Workstation is a high-powered, Intel-based workstation in a blade configuration with NVIDIA graphics, capable of driving up to four displays.
- The HP Workstation client is optimized to enable simple access to one to four ProLiant xw460c Blade Workstations with very low management overhead, high reliability, and the performance to drive up to four displays simultaneously.
- HP Remote Graphics Software (RGS) technology provides HP's innovative graphics compression algorithms that help enable outstanding image quality transmission over a standard network with very low bandwidth consumption, resulting in low latency transactions over large distances.

Workstation products

HP offers a broad family of high-performance, affordable, standards-based workstations specifically designed to meet the needs of a wide range of trading floor users. A tool-less chassis design allows easy access for service and upgrades. HP's personal workstation family also supports both 2-head and 4-head, ISV-certified, 2-D and 3-D, PCI Express graphics solutions and multiple storage options. Several HP models meet the needs of the trading environment:

- **HP Workstation xw4600**—workstation reliability and stability at an affordable price
- **HP Workstation xw6600**—scalable, expandable, dual-socket workstation in an industry-leading small package designed specifically for the trading desk
- **HP Workstation xw8600 and xw9400 systems**—maximum performance and expandability for extremely complex analysis and/or the advanced visualization requirements of the trading environment

HP ProLiant xw460c Blade Workstation solution

Together, the HP Blade Workstation and Blade Workstation Client form an innovative solution, enabling real-time remote access to graphical workstations via standard networks over unlimited distances from a small form factor client. Today, 70 to 80 percent of the total cost of ownership of traditional desktop workstations is in ongoing operational costs. The HP Blade Workstation solution attacks operational costs while improving physical and data security and

adding a new dimension in user access and flexibility. Consolidate workstations—for simplified IT management; lowered Move, Add, and Change (MAC) costs; improved data security; greater trading uptime; and better asset utilization—by removing workstations from under the desk in the trading room and moving them to the data center. In addition, reduce trading transaction latency by locating blade workstations next to the market data server. Take advantage of all the benefits without sacrificing graphics and computing power.

Remote Graphics Software (RGS)

HP has developed innovative software that runs over standard networks to allow greater flexibility in the topology of the trading operation. HP Remote Graphics Software provides financial institutions with an immediate, low-cost solution to the problem of IT equipment crowding. Combined with HP proprietary imaging compression technology, this software supports remote trading solutions without the distance limitations of hard-wired solutions or significant sacrifices in transaction latency. Backroom workstations, loaded with HP RGS sender software, connect seamlessly through existing network wiring to a single client on the desktop, loaded with receiver software. IT costs are reduced as hardware is moved from the workspace to a secure/centralized backroom location. By operating over existing network wiring over large distances and requiring no modifications to existing software, this solution is easy to implement, cost-effective, and transparent to the trader.

Services

HP offers a full complement of services to help analyze and assess the efficiency and effectiveness of the trading floor, data center, or network. They include:

- **Trading Desk Operational Analysis and Assessment:** TCO and ROI, Customized Benefits Analysis, Agility Assessment, Architectural and Infrastructure Assessments
- **Data Center:** Assessment, Design, Thermal Analysis, Layout, Expansion, Management
- **Network:** Assessment, Consulting, Architecture and Design, Integration and Deployment, Maintenance and Management.

Solving customer problems

The HP Approach to Solving Key Business Issues for Trading Operations

Cost Containment

Although revenues from trading have been strong and steady and Financial Market Participants recognize the contribution of technology to growth acceleration, cost containment continues to have a major impact on technology and infrastructure spending. In response to the demand for solid performance improvements (greater than 10%), impressive ROIs, and the best TCO for hardware, software and services as well as improving efficiencies, HP has developed the c-Class BladeSystems and the Blade Workstations for the best performance coupled with infrastructure and operational standardization. HP's Adaptive Infrastructure, Flex Computing, and Grid Computing Solutions and Services are enabling clients to optimize computing assets and technology investments in resilient and cost efficient environments globally.

Competition

With changing value propositions from both traditional and new competitors targeting their client base and market share, our Financial Market customers must strive for a competitive advantage in every dimension of their organizations to continue to accelerate growth. They must also increase their efficiency in entering into new markets and getting products to market before commoditization while delivering unique value add to their customers, correspondents, and counterparties and mitigating risks. HP enables our customers to leverage technology for a competitive advantage by focusing on performance, reliability, operational efficiencies, and thought leadership in our products and services targeted at Trading Operations. We leverage the expertise of HP Labs, our HP Fellows, and our High Performance Computing division to insure our customers have access to the most innovative technology to support their trading operations.

Market Evolution/Automation

The technology driven evolution of the global capital markets, including the proliferation of new execution venues, has created a highly competitive automated environment which taxes the networks and processing infrastructures of most FSI and introduces new dimensions of complexity and risk exposure in an increasingly volatile market. Profitability and growth are contingent upon market participation and participation is contingent upon global market access, maximizing operational flexibility, minimizing latency, and increasing efficiency across all dimensions of trading operations and support: networks, processing architectures and platforms, proprietary and vendor applications as well as operational procedures and risk policies. To enable our customers to benefit from as well as participate in this evolution HP is delivering hardware, software and services to improve performance and reduce market data latency in both distribution networks and processing architectures.

Security & Regulatory Compliance

Financial Market Participants are challenged by compliance to an increasing body of global regulators and regulations which impact end to end operations including trading, execution, customer information and activity, risk management, financial transactions and capital requirements. Financial Services Institutions must be able to measure, monitor, and manage all manner of customer and market data while insuring data security and best execution while protecting against fraud and mitigating risks. HP insures the security of our client's data and facilities with products such as the Blade WS as well our portfolios of Business Continuity, Compliance, and Security Services and Solutions.

Operational Complexity

The ongoing consolidation and globalization of financial market institutions and operations coupled with dynamic market evolution has created an environment in which CIOs and IT managers are constantly dealing with operational issues resulting from mergers, acquisitions and operational reorganizations such as horizontalization as well as aging infrastructures and legacy hardware and software. The need for efficient real time integration has become the rule not the exception and as a result IT professionals tasked with accelerating growth, increasing efficiency and mitigating risk are demanding standardization, interoperability and simplified integration from the technology supporting their enterprises. HP has enabled our customers to reduce operational complexity through our Adaptive Infrastructure Solutions, c-Class BladeSystems and Management Tools as well as the support of HP Services for Integrated Support and Outsourcing Services.

Ecological Considerations

Financial Services Institutions are increasingly concerned about the environmental impacts of their operations and have acknowledged their need to be ecologically responsible. This has resulted in new criteria for judging technology and IT solutions—greenness. HP is in the forefront of delivering ecologically friendly solutions such as Dynamic Smart Cooling, Adaptive Infrastructure and platform standardization enabling our clients to deploy thin green technology globally.

Why HP?

A collaborative approach

Large-scale solutions that involve an IT overhaul and realignment of business functions and processes require a trusted partner who has “walked the talk,” understands your business needs, and designs a solution to meet those needs. With its depth and breadth of experience, HP is uniquely positioned to help design a solution that can efficiently and effectively manage assets, including people, IT infrastructure, and processes. What’s more, HP offers integrated support services. HP single-source accountability simplifies the task of managing partners and vendors in today’s distributed, multi-vendor IT environments.

Innovative solutions using HP Remote Graphics Technology

Multi-asset class trading: The locational flexibility for traders delivered by HP’s Remote Graphic Software facilitates the collaboration required by multi-asset class trading with minimal effort.

Algorithmic and program trading: The collocation of market data and algorithm-supporting servers reduces latency and improves competitive edge.

Improved security: The relocation of workstations and data to a controlled-access data center provides greater security for both. In addition, the HP Blade Workstation Client does not house a traditional hard disk or USB devices can be selectively enabled or disabled.

Reduced concentration risk: The integrated business continuity and flexible disaster recovery scenarios possible with remote workstations reduce concentration risk.

Reduced trading floor power demands: Relocating workstations to a remote data center dramatically reduces demands for space, power and cooling on the trading floor.

Reduced operational complexity: Moving workstations to a remote data center allows simplified, standardized maintenance—with no trader downtime—and provides even greater benefits with the introduction of blade workstations.

Reduced MAC costs and efforts: The locational flexibility introduced by Remote Graphic Software and Blade Workstations reduces the complexity and the costs of moving traders by allowing them to access their data from any desk and also creates the possibility of open seating.

The HP advantage

Collaborative approach—HP Services professionals work closely with customers to understand business goals and budgets, to define appropriate approaches, and to establish measurements to promote mutual satisfaction.

Global capabilities—HP offers consistent and measurable levels of service worldwide. HP professionals understand the complex requirements of global companies.

Reduced risk—Seasoned experts at HP know how to minimize the risk inherent in introducing new technologies and moving to a new business model. HP’s strong balance sheet provides customers with confidence that they are working with a financially stable company.

Financial services domain expertise—HP is a leader in providing technology and services to the global Financial Services Industry.

To learn more, visit www.hp.com/go/fsi

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Technology for better business outcomes