

## Solution Showcase

# The Trader Workstation: Bringing the Benefits of a Hosted Desktop Solution to Traders

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**Abstract:** Trading on the stock market is not for the faint of heart—tens of billions of dollars can be gained, or lost, on a daily basis. In an industry like this, where time is literally money, any delay in accessing essential data could come at a high cost. While traders are considered the experts who can make or break the bottom line for their customers, without the unique capabilities of the equipment on which they work (like their Bloomberg keyboards), trading, as we know it, would likely be at a standstill.

Powering the Trader Workstation is the HPE Moonshot system running Citrix XenDesktop. Citrix XenDesktop and the HPE Moonshot system were designed to run applications in a secure and confidential environment, providing simplified deployment, improved security, high availability, and scalability with predictable performance. By choosing an alternative delivery model like HPE Moonshot running Citrix XenDesktop, organizations can empower traders with real-time decision making and improved productivity, while at the same time reducing the data center footprint and power consumption costs.

Desktop virtualization centralizes applications and desktops in the data center rather than on local devices, requiring a hosted desktop infrastructure (HDI). HDI provides the computing resources, storage capacity, and network connectivity. In addition to the hardware, HDI requires software that projects the desktop and applications out to the endpoint, while at the same time enabling centralized IT management, security, and an on-demand delivery model accessible to the user population. Hosted desktop infrastructure addresses a number of business needs, such as enabling mobile workstyles without compromising security, streamlining desktop management efforts, and improving the end-user experience via self-service access to applications, information, and desktops. In fact, according to ESG research, over the past several years, general desktop virtualization initiatives have consistently been among the most commonly cited technology priorities according to IT decision makers.<sup>1</sup>

HDI is one of various desktop delivery models that centralize desktop images and project them out to the end-user. The benefits of hosted desktops across the organization are abundant and enterprises are seeing the value of HDI tied to additional costs savings in the following areas:

- **Eliminating the hypervisor.** Consolidating application and desktop delivery into an architecture that does not require a hypervisor can greatly simplify procurement, implementation, and ongoing management. With no hypervisor required, and no external storage to purchase or manage, costs and complexity are reduced.

<sup>1</sup> Source: ESG Research Report, [2015 IT Spending Intentions Survey](#), February 2015.

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- **Reduced PC refresh costs.** The cost and resources needed to perform an annual PC refresh can be expensive and time-consuming—giving one big headache to IT when it comes to migrating files and provisioning applications and, at the same time, ensuring end-user productivity will not be impacted. With HDI, organizations can avoid upgrade or hardware acquisition costs by extending the use of older PCs, laptops, and thin clients.
- **Centralized management of desktops.** With HDI, IT administrators can more efficiently manage user desktops and IT policy from a central location, saving time, labor, and resources. Without having to manage physical desktops, IT is able to focus on more important matters such as improving productivity or generating revenue.
- **Improved security.** With information security a top priority reported by IT professionals, having a centralized means of system management allows IT to view all network activity in real time.<sup>2</sup> Being able to see everything that's happening on the network in real time allows IT to take swift action should a suspicious incident or potential threat arise. What's more, enterprises can more effectively protect business-critical data because HDI hosts the desktop image in the data center, not on endpoint devices that can be lost, stolen, or hacked.
- **BYOD and the changing workplace.** With the growing “bring your own device” (BYOD) trend, many employees are using their own devices (think PCs, laptops, smartphones, tablets, and thin clients) to access corporate applications and information and IT must be able to manage that access securely. HDI offers a consistent, secure means for the mobile workforce to work anywhere, at any time, from any device, resulting in improved security, enhanced business productivity, and increased end-user satisfaction. Most importantly, HDI offers a high level of predictable performance, which is so critical in the trading environment.
- **Compact workstation environment.** Less noise, reduced power and cooling requirements, and the elimination of cabling and clutter at an end-user's workstation translate into utility cost savings and improved productivity.

With HDI, organizations can reduce costs, simplify desktop management, improve security, and enhance user productivity. Not only can HDI benefit businesses across a variety of industries—from healthcare to education, and from retail to utilities to financial services—streamlining the end-user environment, but also, with the many advances made in desktop delivery technology and IT infrastructure, one of the most demanding scenarios has become a reality: a workstation dedicated to the unique requirements of financial services traders.

## Financial Services Trader Workstation

The trader work environment is set up to provide work areas that keep traders informed in real time, assisting them in delivering optimal customer value—by utilizing their own knowledge and the information at their fingertips. Any disruption in this fast-paced environment can quickly lead to missed opportunities and, frankly, missed revenue.

The financial services trader workstation is unique in that it combines a variety of demanding and complex systems that are projected in front of the trader for instant access to critical information. This highly complex environment includes:

- Multiple monitors, including graphic-intensive monitors, where traders must be able to view a number of applications, all at once, in a limited physical space.
- Access to high-performance and time-sensitive applications such as Bloomberg, Reuters, ICE, and Xtrader.

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<sup>2</sup> Ibid.

- Live video feeds from various news and media outlets for up-to-the-minute information, which is crucial in this business.
- Unique peripherals, such as the Bloomberg keyboard.

Trading is not for the faint of heart because tens of billions of dollars can be gained, or lost, on a daily basis. In the financial services industry where time is *literally* money, any delay in accessing essential data could come at a high cost. While traders are considered the experts who can make or break the bottom line for their customers, without the unique capabilities of the equipment on which they work (like their Bloomberg keyboards), trading, as we know it, would likely be at a standstill. But what powers that specialized keyboard? Underneath it all is the HPE Moonshot system running Citrix XenDesktop.

## The Trader Workstation, Powered by the HPE Moonshot System

VDI was once considered a challenge from the perspective of being able to service traders in the financial services sector because of performance considerations. Enter the Trader Workstation powered by the HPE Moonshot system—a high-performance, hosted desktop solution that proves it's no longer necessary for the user to keep a physical workstation under his desk. And because performance is critical, with trades being executed in milliseconds, the Bloomberg keyboard plays an essential part of this solution addressing the specific needs of the trading community. This highly specialized keyboard enables traders to rapidly perform shortcuts, stream Bloomberg TV (high-quality HD) as well as other video feeds, and access data analytics in seconds. This keyboard is a trader's bread and butter, so what powers it is just as important as the keyboard itself. It's all about the criticality of the information traders are viewing and monitoring, the need to protect sensitive information, and the necessity of a consistent, high-performing connection, delivered from a centralized infrastructure projected out onto the trader's desktop.

### Citrix XenDesktop and the HPE Moonshot System

The partnership between Citrix and HPE is a winning combination, with IT, end-users, and businesses benefiting from their efforts. The HPE Moonshot system aligns compute, memory, and storage resources, replacing general purpose processors with systems on a chip (SOC), which contain integrated accelerators designed for specific workloads. HPE Moonshot enables organizations to optimize application performance, providing favorable economics with significant power, space, and cost savings while helping businesses become more agile.

Extending hosted desktop solutions to enhance the trading floor, the HPE Moonshot system running Citrix XenDesktop is the underlying solution used with the Bloomberg keyboard. The solution is fully compatible and integrated with the Bloomberg keyboard application, providing consistent performance with one common platform (combining servers, storage, and networking), simplifying management and deployment. In essence, the HPE Moonshot platform delivers high resource utilization and low power consumption through an integrated infrastructure.

Citrix XenDesktop provides Windows applications and desktops as secure mobile services. With XenDesktop, IT can mobilize the business, while reducing costs by centralizing control and security for intellectual property. XenDesktop can deliver full desktops or applications to any device. HDX technologies enable XenDesktop to deliver a native, touch-enabled look-and-feel, optimized for device type, as well as the network.

The HPE Moonshot with XenDesktop solution provides an optimal delivery platform and an infrastructure for applications and desktops based on integrated and validated technologies.

Meeting the demands of almost any use case, XenDesktop offers a variety of benefits:

- **Easy-to-use interface, improved productivity, and streamlined workstation environment.** Users can easily access applications, desktops, and data anywhere, at any time, from any device, increasing productivity and enhancing the user experience. Additionally, the solution cuts down on noise, reduces power and cooling requirements, and eliminates the cabling and clutter at an end-user's workstation, providing savings and improved productivity.
- **Simple deployment and management.** An experienced XenDesktop administrator can integrate the system in approximately two hours, with no SAN or virtualization layer, and with dedicated hardware resources providing predictable cost, capacity planning, and scaling.
- **Improved security and protection of sensitive information.** Virtual apps and desktops are centrally managed in the data center, increasing security while reducing the risk of data loss or intrusion.
- **Cost-efficient application and desktop management.** IT can use any cloud, public or private, to securely deliver virtual desktops, and significantly reduce application management costs.

Additionally, HPE Moonshot offers:

- **High performance and low power consumption.** HPE Moonshot has 45 hot pluggable HPE ProLiant m710 server cartridges, and requires an average of 2,925 watts of power. The solution offers consistent performance of HDX technology, even over challenging, high-latency networks.
- **High compute density.** HPE Moonshot uses the appropriate level of compute for each specific workload so there are no wasted resources.
- **Reduced cabling and networking requirement.** HPE Moonshot's dense form factor reduces the data center footprint—running more workloads in less space—with shared networking resources requiring less cabling.
- **Improved space and environmental efficiency.** HPE Moonshot's high-density design reduces space, cooling costs, and energy footprint, and combines with lower operating costs to provide organizations with better TCO.
- **Easy scalability.** The solution is easy to expand and scale as an organization grows. A single HPE Moonshot chassis can support up to 2,000 users.
- **High availability with hot-swap and redundancy.** High-availability architecture ensures that users will be able to receive applications or desktops, regardless of maintenance or unplanned outages.
- **FIPS compliance and Common Criteria certification.** XenDesktop on the unified FlexCast Management Architecture (FMA) platform is FIPS-compliant and Common Criteria certified, meeting the highest security standards of regulated industries.

## The Bigger Truth

Desktop virtualization has created numerous opportunities for industries across the board—from healthcare through education to utilities. One of the more complex end-user configurations is the trader workstation, which has been made possible by the HPE Moonshot system, allowing organizations to move local compute, power, and resources away from the end-user, and place them in a more manageable situation for IT.

With the HPE Moonshot infrastructure and the Citrix XenDesktop platform, IT can deliver full desktop images to address rapidly changing business environments where multiple applications are constantly running on multiple monitors. In

trading floor environments, security is of the utmost importance, and sensitive data must be protected without fail. Without a doubt, traders require a high level of service so that they, in turn, can provide the same high quality of service to their customers.

Citrix XenDesktop and the HPE Moonshot system were designed to run applications in a secure and confidential environment, providing IT with simplified deployment, improved security, high availability, and scalability with predictable performance. By choosing an alternative delivery model like HPE Moonshot running Citrix XenDesktop, organizations can empower traders with real-time decision making and improved productivity, while at the same time reducing the data center footprint and power consumption costs.

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