

Brochure

# HP and AMD: Thin Clients in Healthcare

Empower patient-centered care with secure and timely access to the data and applications healthcare professionals need



# Optimize your environment

## Gartner: Desktop Virtualization Provides Value in Healthcare

Gartner recommends that healthcare delivery organizations should:

- Use desktop virtualization to deliver higher levels of endpoint security to help meet regulatory compliance requirements
- Integrate appropriate SSO and multi-factor authentication solutions to improve clinical workflows, increase user productivity, ensure compliance and drive higher levels of employee satisfaction
- Ensure desktop virtualization is a strategic initiative tied to benefits outside of cost reduction, especially in relation to factors such as improved patient care and clinical efficiency<sup>1</sup>

Thin Clients help healthcare providers stay focused on patients, not technology. With HP Thin Clients you can provide secure point-of-care access to the information and tools professionals need to do their work—while eliminating the expense, hassle, and risk of managing multiple desktop environments. Busy staff gain quick access to their personalized workspace throughout the facility—while medical data and applications stay in the data center, where they are centrally managed and secure.

## Patient-centered care

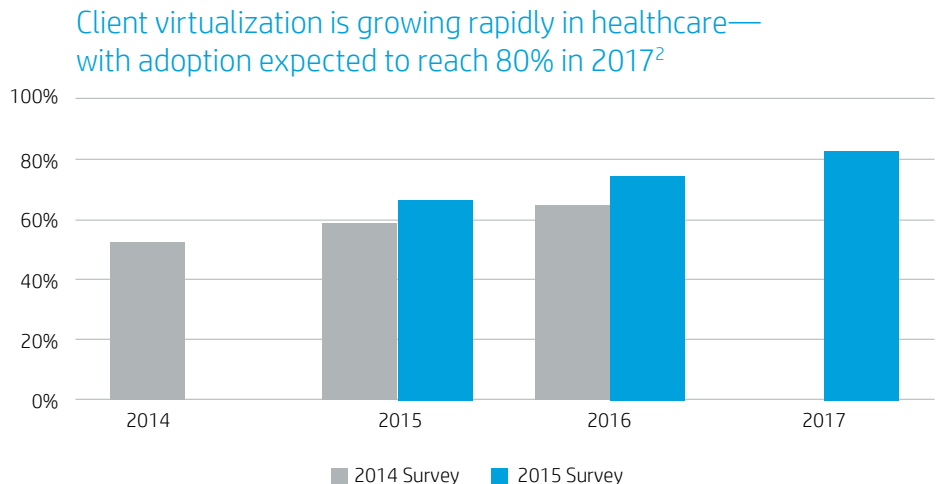
Adoption of desktop virtualization in healthcare is gaining momentum (Figure 1), and for good reason. It's helping to address some of the most pressing business complexities and clinical challenges today—from security to cost-containment, to end user productivity. And perhaps more importantly, it means that caregivers spend less time re-entering data and managing technology, and more time with patients.

With HP, staff can quickly log on to their personal workspace on any HP Thin Client device. Proximity badge authentication and single sign-on (SSO) eliminate the need for multiple passwords, while controlling access to the desktop, data, and applications authorized for each user.

HP Thin Clients help to significantly reduce the cost of purchasing, maintaining, and supporting distributed endpoint devices and the software and data on them.

Desktop operating software, workspaces, data and applications remain in the data center, where IT professionals—not users—monitor, manage, and maintain security, performance, and availability. Security is strengthened because neither data nor the personal desktop environment physically resides on the device. Instead, it is virtually served up from the data center upon request—and reflects all of the latest updates made by all authorized users.

**Figure 1.** Client Virtualization in Healthcare



## Why HP Thin Clients



### Optimize workflow

Enable clinical, administrative and operations staff to work smarter—and work together—with real-time information capture and sharing across the patient flow cycle. Since authorized users access and update the same files, patient records always reflect the latest information.



### Protect data

Protected health information (PHI) and other data stay in the data center, not in the drives of different PCs, laptops, and tablets across the health system. Built-in security features on HP Thin Clients work with HP software in the data center to maintain multiple layers of protection and assist with HIPAA and other regulatory compliance. Since data does not physically reside on thin and zero clients, the risk from a lost or stolen device is greatly diminished.



### Unleash mobility

HP Mobile Thin Clients move easily with caregivers throughout their rounds wherever that may be—from hospital to home healthcare, and all points in between. The family of HP Thin Clients offers a range of features and variety of form factors to fit anywhere they're needed to provide shared access throughout the facility.



### Deliver more, for less

With HP Thin Clients, you can significantly reduce both end-user hardware expenses and desktop management costs. As part of HP's end-to-end enterprise client virtualization portfolio, HP Thin Clients enable both caregivers and IT to do more, for less.

## Security that doesn't get in the way of care

While protecting patient data is paramount, research shows that misguided measures can have unintended consequences. Slow, numerous login processes that require multiple, complex passwords can lead to bad practices, such as written passwords and user 'workarounds' that seriously compromise security.



HP Thin Clients and partner solutions from industry leaders in access control, authentication, and SSO eliminate the need for multiple logins and passwords. Staff simply tap their badge on a card reader to open their personal workspace, whether at a nurses' station, patient's bedside, lab, or on an HP Mobile Thin Client.

### Secure roaming for 'follow-me' productivity

Caregivers can even take advantage of secure roaming and a "follow-me" workspace that enables them to suspend and then continue sessions in their personal workspace as they move from one HP Thin Client to another. Nurses, for example, can open a patient's chart for review at the nurses' station, close it with a tap of their badge, and reopen the same chart, at the same point, on a bedside system in the patient's room picking up right where they left off.

“Because the HP Thin Client environment lets us maintain files on our own servers instead of downloading them to employee PCs, we don't have to worry about security breaches even in the most drastic situations, like if home machines are compromised or stolen.”

— Jeff Laniewski, Vice President, Synernet, Inc.

## Fit for healthcare

With HP Thin Clients, you can choose from a wide range of devices to fit the clinical or administrative task at hand. On the desktop, by the bedside, in the hands of on-the-move professionals, HP Thin Clients come in a variety of form factors, with different features, to meet needs across the health system.

You can attach an HP Thin Client to the back of a flat-panel display using the HP Quick Release display mount, for example, to preserve scarce workspace. And because HP Thin Clients have no hard drive or fans, they're perfect for sterile spaces and quiet operation at bedside.

## HP provides end-to-end solutions for healthcare



- **Admissions & Scheduling**—Enter information once and it updates the record, available for access by all authorized professionals. This helps to reduce the opportunities for data-entry errors and discrepancies.
- **Point-of-care**—Access the latest patient information and update charts as care is delivered. Whether in the patient's hospital room, in the lab, at nursing facilities, rehab, or home care.
- **EMR / EHR**—Enable quick secure access and authorized updating of electronic health records (EHR) and electronic medical records (EMR), while protecting PHI data with multiple built in layers of security and data management tools.
- **Telehealth**—Bring the expertise of medical specialists to rural areas and emergency transport vehicles, with the built-in reliability, performance, secure visualization, and patient data access required for telehealth sessions.
- **Pharmacy & Medication Management**—Replace handwritten processes with automated medication management, including alerts, to help prevent errors, enhance safety, and reduce costs across the supply chain with secure Computerized Physician Order Entry (CPOE) capabilities.
- **Billing and Insurance Claims**—Automatically capture claims and services provided as part of patient workflow. Process all billing and claims from data stored in a single, central repository.
- **Enhancing the patient experience**—Make mobile HP Thin Clients available to patients and residents. Patients can learn more about their condition, access the Internet or entertainment delivered online or through the health system network, and communicate remotely with friends and family members using web-enabled face-time apps.<sup>3</sup>

“The flexibility of HP Thin Clients lets us standardize across usage scenarios. A single model front-ends our clinical records system in patient rooms and also equips home health division desktops.”

- Todd Colliver, Manager of Client Systems, Kindred Healthcare

# HP Thin Client Family with AMD technology



## HP t520 Thin Client

The sleek HP t520 Thin Client featuring AMD Embedded G-Series SOCs (systems-on-chip)<sup>4</sup> offers a powerful and seamless desktop experience, and supports up to two digital displays. Also includes fast peripheral plug-in with six USB ports.

HP Thin Clients combined with AMD's advanced power-smart processing and expansive display capabilities are built to deliver fast, high-quality, reliable, 24/7 access to information and applications on servers in the data center, across the health system, or via the Cloud.

HP offers a broad family of thin clients to meet every need. HP Thin Clients support multiple protocols, multiple display screens, and multimedia; to HP Mobile Thin Clients for on-the-go access.

HP Thin Clients are available in a variety of configurations to accommodate Citrix, Microsoft, and VMware client virtualization environments.

## HP Thin Clients: Flexibility & performance like no other

HP Thin Clients deliver the familiar desktop experience and rich multimedia performance that users have come to expect from PCs and notebooks—without compromising the simplicity and security advantages of thin clients in healthcare.

HP Thin Clients leverage the latest AMD processor technology to deliver affordable cutting-edge performance. Run demanding applications, such as telehealth and other graphic- and compute-intensive healthcare applications in multi-protocol environments.

### Multiple options

HP Thin Clients can support multiple digital displays<sup>5</sup> and can attach easily to the back of a flat-panel display, using the HP Quick Release display mount. They feature a range of expansion options, including legacy ports for peripherals.

### Multiple ways to connect

You can connect HP Thin Clients via network cable and/or wireless networks,<sup>3</sup> using the technology that's right for you—Gigabit Ethernet with support for 802.11a/b/g/n or Bluetooth.

### Built-in security

HP builds security features, including proximity card authentication, secure USB, firewall, and other protections into HP Thin Clients to keep sensitive data safe and assist with HIPAA and other regulatory mandates.

### Familiar workspace

Choose from a wide variety of 32- and 64-bit Microsoft Windows® Embedded and HP-optimized thin client operating systems to keep your staff productive with the environment and interfaces they already know and prefer.

## HP Mobile Thin Clients: Ready for rounds

Take HP Mobile Thin Clients along on rounds for easy secure access to data and applications via wireless networks.<sup>3</sup>

Offer HP Mobile Thin Clients to in-patient, nursing home and rehabilitation residents, even homecare clients. HP Mobile Thin Clients are durable enough to withstand high levels of shared use.



## HP t620 Thin Client

Help protect your thin client environment with integrated and optional hardware and software security solutions, including: HP BIOS implemented to NIST guidelines, a TPM chipset, Fiber NIC communications, and lockable port cover options.



## HP mt42 Mobile Thin Client

The HP mt42 Mobile Thin Client, the world's thinnest, lightest, and most powerful quad-core mobile thin client.<sup>6</sup> Access the cloud and your virtual desktop with Windows 10 IoT Enterprise.<sup>7</sup>

# Accelerating client virtualization in healthcare

HP is ready with the architectures, partnerships, software, and services you need to accelerate end-to-end client virtualization across your health system.

## **Partnering for out-of-the-box compatibility**

HP partners with industry leaders, such as AMD, Citrix, VMware, and Microsoft to provide healthcare organizations with out-of-the-box compatibility and best-in-class performance for a broad portfolio of client virtualization solutions.

## **Partnering for secure access**

HP partners with SSO and proximity card authentication leaders, such as Imprivata, HealthCast, and Caradigm to simplify and speed secure access.



HP Thin Clients with Imprivata OneSign® SSO software maintains security while eliminating the need for multiple passwords.



HP Thin Clients and Caradigm SSO and Context Management solutions provide quick access to patient information using proximity badges.



HP Thin Client and HealthCast Fast-Access proximity badge solutions simplify and protect access to healthcare information across the facility and beyond.

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# HP Software

## HP Device Manager

HPDM provides full life cycle management for HP Thin Clients; from initial discovery, deployment and configuration to maintenance and EOL of product. IT administrators can control and make decisions about their IT resources locally or remotely with HPDM which provides detailed asset information through a simple console “dashboard”. With just one software you can do it all—track, configure, upgrade, clone, and manage up to thousands of thin client devices. So, kick back and relax. We do the hard work so you can focus on your key business initiatives. Device deployment, task automation, compliance management, and policy-based security management.

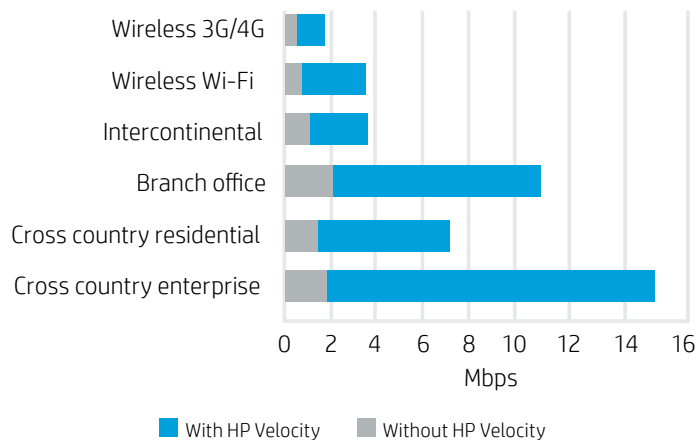
For more information go to [hp.com/go/hpdm](http://hp.com/go/hpdm)

## HP Velocity

HP Thin Clients are the only thin clients available with HP Velocity, a pre-installed network performance software solution that requires no infrastructure changes to accelerate network performance and deliver a high quality end-user experience. In addition to delivering a rich thin client user experience by automatically addressing common network bottlenecks, such as packet loss, network latency, and WiFi congestion, HP Velocity captures and provides data that helps IT prevent and troubleshoot network issues.

For more information go to [hp.com/go/velocity](http://hp.com/go/velocity)

**Figure 2.** Network performance improvements with HP Velocity  
Effective network performances seen by user under different network conditions.



HP Velocity software finds and fixes network bottlenecks in real time and optimizes network traffic for virtual desktops and application streaming.

## HP Easy Shell®

Make your HP Thin Client Windows Embedded user experience easier than ever with HP Easy Shell. Customize the intuitive interface and level of protection to fit your needs, and enjoy targeted control at a great price so you can make the most of your cloud infrastructure, VDI, and kiosk environments.

For more information go to [hp.com/go/easyshell](http://hp.com/go/easyshell)

## HP True Graphics

Achieve breakthrough video and graphics presentation from the cloud with HP True Graphics.<sup>9</sup> HP True Graphics offloads all rich content, not just multimedia, to your local GPU HW decoder for best possible performance while your local CPU can react faster to what you need your thin client to do.

For more information go to [hp.com/go/truegraphics](http://hp.com/go/truegraphics)

Learn more at  
[hp.com/go/thin/healthcare](http://hp.com/go/thin/healthcare)  
[hp.com/go/thin](http://hp.com/go/thin)

1. Desktop Virtualization Provides Value in Healthcare, Gartner, Inc. July 2, 2014.
2. Imprivata 2015 Desktop Virtualization Trends in Healthcare Report. [http://pages.imprivata.com/rs/imprivata/images/0815\\_Desktop-Virtualization-Trends-Healthcare.pdf](http://pages.imprivata.com/rs/imprivata/images/0815_Desktop-Virtualization-Trends-Healthcare.pdf)
3. Wireless access point and Internet service required and is not included. Availability of public wireless access points limited.
4. HP t620 Thin Client offers AMD GX-217GA Dual-Core APU at 1.65 GHz with AMD Radeon™ HD 8280E graphics or AMD GX-415GA Quad-Core APU at 1.5 GHz with AMD Radeon™ HD 8330E graphics. The HP t620 PLUS is available with AMD™ GX-420CA Quad-Core APU at 2.0 GHz with AMD Radeon™ HD 8400E graphics. Multi core processing with AMD technology is designed to improve performance of this system. Given the wide range of software applications available, performance will vary. AMD's numbering is not a measurement of clock speed.
5. The resolution monitor display and the multi-display modes (i.e. clone, spanning, extended/independent) supported in ICA, RDP, or locally may vary. Number of monitors Supported varies by model.
6. Windows 10 IoT Enterprise for Thin Clients is planned for availability on the HP mt42 in December 2015. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See [microsoft.com](http://microsoft.com).
7. Comparison as of August 14, 2015 based on mobile thin clients with sales > or = 5,000 units in 2014. Competitive information taken from vendors' publically available websites on August 12, 2015. Vendor number of sales source: IDC 2015Q2 Historical Release; WW Quarterly Enterprise Client Device Tracker published August 13, 2015.
8. HP Easy Shell is currently available on HP Thin Clients with a Windows Embedded OS.
9. HP True Graphics requires an HP Thin Client with an HP ThinPro 5.0 or higher operating system (combo OS with HP Smart Zero Core begins at v5.0), AMD processing technology, and a Citrix virtual desktop infrastructure running a XenServer ecosystem—must be XenApp or XenDesktop v7.0 or higher. HP True Graphics is preinstalled on the OS starting with HP ThinPro 5.2. HP True Graphics will be available on HP ThinPro 5.0 or higher as an add-on through Easy Update for ThinPro or via HPDM in early 2015. See product QuickSpecs for exact compatibility.

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