HP Thin Client Family





HP Thin Clients deliver the tools for simple cloud manageability and control. Plus, with powerful security and productivity-maximizing features, experience the added benefit of IT peace-of-mind.

HP Thin Clients give you the tools to easily rule the cloud with features from HP, like HP Device Manager and HP Easy Shell¹⁸ - set up, manage and monitor thousands of HP Thin Clients remotely from a single point.

With features like 4K multi-display support, remote access to your data, and cloud optimized OS options, your users can be at their most productive whether at the office or on the qo.



HP Zero Clients

Zero in on a better VMware client.

HP Zero Clients are designed for VMware environments with the latest PCoIP technology ideal for graphics-intensive applications that need workstation-like performance and support for dual monitors.¹ No operating system or moving parts mean HP Zero Clients require zero management. Deployment is simple, and viruses are history. As HP's most secure endpoints, H P Zero Clients keep your data safe in the datacenter—only pixels are transferred. Hardware USB authorization and fiber NIC² add extra layers of security. Designed for fast PCoIP, Teradici²6, Amazon Workspaces™ and VMware®, HP Zero Clients are an ultra-low-cost-per-seat solution with ultra-performance and reliability.



HP Desktop Thin Clients

Customize your level of performance, security and manageability.

Pair the thin client form factor of your choice with the operating system of your choice, including Linux®-based HP Smart Zero and HP ThinPro, or Windows Embedded. Choose the processing power that matches your productivity needs, whether it's for mission-critical multimedia a c c e s s , or everyday task-based demands. Support your growth with expansion options and legacy ports, choose native support for up to four digital displays, and maintain network adaptability with wired-in Ethernet and Wi-Fi options. Get a cloud-ready and VDI-optimized thin client that's tested and certified for today's top ISV providers, including Citrix®, VMware® and Microsoft.



HP Mobile Thin Clients

Ultimate cloud convenience.

Mobile cloud computing is easier and more flexible than ever with HP Mobile Thin Clients. Employees can get the job done from just about anywhere thanks to professional cloud and VDI-optimized features with critical user and management software built right in. HP ThinPro and Windows-based programs and tools make it easy for everyone to log in and get to work with familiar tools and programs. No training required.

HP Thin Client Operating Systems



HP ThinPro

A modern, secure, and intuitive Linux® computing experience.

Deliver secure desktop virtualization that's as comfortable for IT as it is for end users with the stunningly redesigned HP ThinPro. Leap forward with a beautifully reimagined operating system that is amazingly easy to navigate, and ideal for virtual desktop and web browser applications. Make setup and configuration painless for IT with a streamlined start-up wizard and configuration instructions. Connect quickly with Citrix®, VMware®, Microsoft® RDP and a default web browser. Help protect data with a Linux®-based OS that attracts few viruses and has a locked file system to deter unauthorized updates, customizable user settings and permissions, a firewall, and HP Smart Zero.



HP Zero and Smart Zero Core

The smarter zero client.

Configure it and forget it. It's that easy with the smarter HP Zero Client experience provided by HP Smart Zero technology. Everyone wins with an easy-to-navigate ecosystem for end-users and simple setup and maintenance for IT that doesn't require specialized administrative support. Switch up your virtualized environment without new requirements or installations and maintain connection flexibility across cloud- and web-based applications, compatible browsers, and top VDI environments like Citrix®, VMware®, and Microsoft® RDP.



Windows Embedded OS

A familiar interface.

Work efficiently on Windows Embedded Standard, the thin client operating system you're already well-acquainted with. The familiarity of a powerful Windows®-based environment will help reduce the cost of training and tools and make maintenance and roll-outs a breeze for end u s e r s , application developers, and IT administrators.

For more information, visit **HP Thin Client Operating Systems**.

HP Thin Client Software



HP ThinPro PC Converter

Maximize the value of your existing PCs

HP is bringing you a solution that eliminates the immediate need for endpoint refresh by converting your existing PC into an HP ThinPro thin client using HP ThinPro PC Converter. This software allows you to replace your existing OS on ANY manufacturer's PC with the optimized-for-VDI HP ThinPro operating system³¹. Your PC is converted into a secure thin client that can be easily managed by HP Device Manager, which is included in the solution. When the time does arrive to replace these PCs, seamlessly transition to industry-leading HP Thin Clients.



HP PC Converter for Windows

Reconfigured. Optimized. Secured.

Accelerate your transition to VDI with the HP PC Converter for Windows®. This simple software bundle allows you to optimize your PCs with all the benefits of a thin client, ensuring superb end user experience and effortless device management.



HP Device Manager 5.0

Highly Scalable software for simplified device management.

Make it easy for your IT admins to remotely deploy, update, and manage thousands of HP Thin Clients from anywhere1 through a single console with HP Device Manager, a tool included with HP Thin Clients at no extra cost. Enable IT to keep track of what's important with a tool that sets up in minutes. Customize the interface with easy drag-and-drop support for multiple displays. Use the web based console³² for quick access or role-based task delegation from anywhere.



HP EasyShell

Quick. Simple. Customized.

Make your HP Thin Client Windows Embedded user experience easier than ever with HP Easy Shell¹⁸. 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.



HP True Graphics

Truly astounding cloud-based multimedia.

Experience breakthrough video playback, smooth graphics, and impressive high-speed performance of your cloud-based multimedia with HP True Graphics4 for Windows®- and Linux®-based HP Thin Clients. Power through more applications, redirect H.264 content, and add heavy compute programs to your current environment with a solution that offloads tasks from the CPU.



HP Remote Graphics Software

Work virtually anywhere.

Access your workstation or server-based graphic-rich applications and collaborate remotely in real time from any PC, Thin Client or Windows tablet with HP Remote Graphics Software (RGS).⁵

For more information, visit HP Thin Client Software.

HP Desktop Thin Clients

Series		ThinPro, Smart Zero and Windows Embedded*				
Platforms	t430	t530	t630	t730		
Processor and memory	•					
Processor	Intel® Celeron® Processor N4000 (1.1 – 2.6 GHz dual-core processor)	AMD GX-215JJ Dual-Core APU SoC with Radeon™ R2E Graphics (1.5 GHz base frequency, up to 2 GHz burst frequency, 1 MB cache) ⁷	AMD GX-420GI (2.0GHz - 2.2 GHz quad-core ⁷) APU with a Radeon R7E based graphics core	AMD R-Series RX-427BB (2.7GHz-3.6 GHz quad-core ⁷) APU with a Radeon HD 9000 based graphics core		
Flash/RAM ⁸	Up to 32GB flash/ 4GB DDDR4 single- channel SDRAM ²⁰	Up to 512GB flash/up to 16 GB DDR4- $1866\mathrm{SDRAM^{20}}$	Up to 512GB flash/up to 32 GB DDR4- 1866 SDRAM ²⁰	Up to 128GB flash/up to 16GB SDRAM ²⁰		
Video and audio (All I	HP desktop thin clients support widescree	n resolutions and headphone/mic)				
Maximum resolution ⁹	Ultra-High Definition (UHD) 3820 x 2160 via DisplayPort™ over USB-C™ 1920 x 1200	3840 x 2160 via DisplayPort™ 1920 x 1080 via optional VGA output	3840 x 2160 via DisplayPort™ 1920 x 1200 via optional VGA output	3840 x 2160		
Monitor support ¹¹	1 x DisplayPort 1.2 ™ 1 x HDMI 1 x DisplayPort™ over USB-C™ Dual-display support via: HDMI + DisplayPort™ or HDMI + DisplayPort™ over USB-C™	2×DisplayPort™ 1×VGA (optional) ²⁴	2 x DisplayPort™ 1 x VGA (optional)	4 X DisplayPort™ 6 x DisplayPort™ (optional) ²²		
Networking						
Embedded Networking Interface	LAN: Gigabit Ethernet (RJ-45) WLAN: Intel® Wireless-AC 9260 with Bluetooth®; M.2 module with integrated internal Wi-Fi antenna system ¹³	LAN: Gigabit Ethernet (RJ-45) WLAN: Intel® Dual Band Wireless-AC 3168 Wi-Fi/Bluetooth® combo (optional) ¹³ Intel® Dual Band Wireless AC 8265 Wi-Fi/Bluetooth® combo (optional) ¹³	LAN: Gigabit Ethernet (RJ-45) WLAN: Intel® Dual Band Wireless-AC 3168 Wi-Fi/Bluetooth® combo adapter (optional) ¹³ Intel® Dual Band Wireless AC 8260 Wi-Fi/Bluetooth® combo adapter (optional) ¹³ Allied Telesis Fiber Optic NIC (optional) ^{13,23}	LAN: Gigabit Ethernet (RJ-45) WLAN: Intel® 802.11a/b/g/n/ac PCIe ¹³ Allied Telesis AT-27M2/SC M.2 Fiber Fast Ethernet Network Interface ¹³ Allied Telesis Fiber Optic NIC (optional) ^{13,23}		
I/O and expansion						
Serial	0	0	1 (2nd port optional)	2		
Parallel	0	0	0	1		
PS2	0	0	2	2		
USB	Total: 4 1 x USB-C™ 3.1 Gen 1 supports DisplayPort™ over USB-C™ and USB Power Delivery 3 x USB-A	Total: 6 3 USB-A 3.1 2 USB-A 2.0 1 USB 3.1 Type-C™	Total: 7 2 USB 3.0 1 USB 3.0, hidden 4 USB 2.0	Total: 9 2 USB 3.0 6 USB 2.0 1 USB 3.0, hidden		
Slot expansion options ¹⁴	No	Yes 1 configurable port (choice of serial, VGA or coaxial port) ²⁴	No	1 x half height PCI Express expansion slot x16 physical slot wired as a x8 (rear)		
HP cable lock slot	Yes	Yes	Yes	Yes		
Environmental certifi	cations					
ENERGY STAR®	Yes	Yes	Yes	Yes		
EPEAT® 15	Yes	Yes	Yes	Yes		
Low Halogen ²¹	Yes	Yes	Yes	Yes		

HP Zero Clients

Series	Zero Clients				
Platforms	t310 G2	t310 G2 AiO	t310 Quad Display		
Processor and memor	Processor and memory				
Processor	TERA2321 PCoIP Zero Client processor	TERA2321 PCoIP Zero Client processor	TERA2140 PCoIP Zero Client processor		
System Memory ⁸	512 MB DDR3-1333 SDRAM	512 MB DDR3-1333 SDRAM	32 MB/512 MB SDRAM		
Video and audio (All	HP desktop thin clients support widescreen res	olutions and headphone/mic)			
Maximum resolution ⁹	Dual displays: 1920 x 1200 Single display: 2560 x 1600 ¹⁰	23.8" diagonal FHD IPS WLED-backlit 1920×1080 One : 2048 × 1152 via DisplayPort™	Four displays: 1920 x 1200 Dual displays: 2560 x 1600 ¹⁰		
Monitor support ¹¹	1 x DVI-I 1 x DisplayPort™ ²⁵	1 x DVI-I 1 x VGA 1 x DisplayPort™ ²⁵	1 x DVI-D 1 x VGA		
Networking					
Embedded Networking Interface	Gigabit Ethernet (RJ-45 interface) 1 Gbps Fiber NIC ¹⁴	Gigabit Ethernet (RJ-45 interface)	Gigabit Ethernet (RJ-45 interface) 100Mbps Fiber NIC ¹⁴ 1Gbps Fiber NIC ¹⁴		
Networking Options	Wake on LAN (WoL) using magic packet.	Wake on LAN (WoL) using magic packet.	Wake on USB		
I/O and expansion					
USB	6 USB 2.0	6 USB 2.0	4 USB 2.0		
Slot expansion options ¹⁴	No	No	No		
HP cable lock slot	Yes	Yes	Yes		
Environmental certi	fications				
ENERGY STAR®	No	No	No		
EPEAT® 15	No	No	No		

HP Mobile Thin Clients

Series	Mobile			
Platforms	mt44	mt21		
Processor and memory				
Processor	AMD Ryzen™ 3 PRO 2300U Mobile processor (2.0 GHz base frequency, up to 3.4 GHz burst frequency, 6 MB cache, 4 cores) ⁷ with Radeon™ Vega Graphics	Intel® Celeron® 3865u with Intel HD Graphics (1.8 GHz, 2 cores ⁷)		
System Memory ⁸	Up to 8 GB	Up to 8 GB		
Operating System and Fl	ash			
Operating System	Windows 10 IoT Enterprise ¹⁹	Windows 10 IoT Enterprise ¹⁹ HP ThinPro with Smart Zero Core		
Flash	128GB M.2 flash drive	128GB M.2 flash drive		
Video and audio (All HP d	esktop thin clients support widescreen resolutions and headphone/mic)			
Maximum resolution ^{9.}	14" diagonal FHD IPS (1920x1080) Anti-Glare LED-backlit 14" diagonal FHD IPS (1920x1080) LED-backlit with Corning® Gorilla® Glass Four displays: 1920 x 1080 via HP UltraSlim Docking Station Four displays: 1920x1200 via HP Elite USB-C Dock G4	14" diagonal FHD UWVA (1920x1080) Anti-Glare LED-backlit 14" diagonal HD SVA (1366 x 768) Anti-Glare LED-backlit Two Displays: 2048 x 2160 via HDMI Two Displays: 2048 x 1536 via VGA		
Monitor support ¹¹	1xVGA 1xHDMI	1xVGA 1xHDMI		
Touchscreen support ¹²	Yes (optional)	No		
Networking				
Integrated	Broadband Wireless (WWAN): HP lt4132 LTE/HSPA+ 4G Mobile Broadband ¹³ Wireless LAN (WLAN): Intel® Dual Band Wireless-AC 8265 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo, non-vPro™ ¹³ LAN: Realtek PCIe GbE Family Controller 10/100/1000 ²⁹	Wireless LAN (WLAN): Intel® Dual Band Wireless-AC 8265 802.11ac (2x2) Wi-Fi® Bluetooth® 4.2 Combo Wired LAN: Realtek RTL 8111HSH Gigabit Ethernet		
I/O and Evpansion				
I/O and Expansion Ports	1 x USB 3.1 GEN 1	2 x USB 3.1 Gen 1 (1charging)		
	1 x USB Type-C™ (Alt Mode) 1 x USB 3.1 GEN 1 (Charging) 1 x HDMI 2.0 1 x RJ-45 / Ethernet 1 x docking connector 1 x headphone/microphone Combo 1 x AC power	1xUSB 3.1 Type-C™ port 1xVGA 1xHDMI 1xheadphone/microphone combo jack 1xAC power interface 1xRJ-45 Gigabit Ethernet interface 1xSD Multi-media Reader slot; supports SD, SDHC, SDXC		
Slot expansion options ¹⁴	Smart card reader (optional) External Micro SIM Slot (3FF)	None		
Security	Security lock slot Integrated smart card reader ³⁰ HP Fingerprint Sensor ³⁰ IR camera for facial recognition ³⁰ Trusted Platform Module (TPM) 2.0 NFC Antenna ³⁰	TPM v2.0 Security lock slot Pre-boot Authentication		
Environmental certificat	ions			
ENERGY STAR®	Yes	Yes		
EPEAT® 15	Yes	Yes		
Dimensions				
DIMENSIONS .	12.84 \times 9.22 \times 0.71 in; starting at 3.37 lbs (non-touch); starting at 3.56 lbs (touch)	13.23 x 9.37 x 0.79 in; 3.6lbs		
	I	I .		

HP Thin Clients

Software specifications	Windows 10 IoT Enterprise for Thin Clients ¹⁹	Windows Embedded Standard 7E/7P ¹⁶	HP ThinPro	HP Smart Zero Technology ¹⁷
Available Platforms	HP t430, HP t530, HP t630, HP t730, HP mt44	HP t530†, HP t630†, HP t730‡	HP t430, HP t530, HP t630, HP t730, HP mt21	HP t430, HP t530, HP t630, HP t730, HP mt21
Applications				
ICA/RDP	•	•	•	•
VDI brokers	•	•	•	•
HP TeemTalk Terminal Emulation		•	•	
X Windows (X11R6)			•	
Java Virtual Machine	Add-on	Add-on	Add-on	Add-on
API compatibility	Win64	Win32/Win 64	Linux	Linux
Local browser	Full Internet Explorer	Full Internet Explorer	Mozilla Firefox	Mozilla Firefox
Media player	•	•	Through VDI protocol	Through VDI protocol
PDF Reader	•	•	•	•
ThinPrint print client (TCP/IP)	Available directly from vendor	Available directly from vendor		
Security				
File protection	Unified Write Filter	Enhanced Write filter or File based Write Filter	Read only file system	Read only file system
Locked configuration/accounts	•	•		
Firewall	Microsoft Firewall	Microsoft Firewall		
Smart Card support	•	•	•	•
Management and User Experience Soft	tware			
HP Device Manager	•	•	•	•
Microsoft SCCM	•	•		
HP Remote Graphics Software (HP RGS) - not offered on HP t430, ThinPro & Smart Zero		•	•	•
HP Universal Print Driver				
Velocity	•	•	•	•
HP Easy Shell	•	•		
HP True Graphics (not offered on HP t73	30)	•	•	•
de diapriles (not offered of the tra	,			

 VMware Horizon View HCL

Citrix Ready/HDX Ready

Model	OS Version	Horizon View Client	XenDesktop/XenApp
t310 G2	No Operating System	Tera2 Certified ²⁶	N/A
t310 Ai0 G2	No Operating System	Tera2 Certified ²⁶	N/A
t430	HP ThinPro	Certified	Verified
t430	HP Smart Zero Core	Certified	N/A
t430	Windows Embedded	Certified	Verified
t530	Windows Embedded	TBD	TBD
t530	HP ThinPro	TBD	TBD
t530	HP Smart Zero Core	TBD	TBD
t630	ThinPro	Certified	Verified
t630	HP Smart Zero Core	Certified	Verified
t630	Windows Embedded	Certified	Verified
t730	Windows Embedded	Certified	Verified
mt21	Windows Embedded	Certified	Verified
mt21	HP ThinPro	Certified	Verified
mt21	HP Smart ZeroCore	Certified	Verified
mt44	Windows Embedded	Certified	Verified

^{*} Availability varies by region

N/A – Certification is not applicable to this device

For more information visit hp.com/go/thin

- The resolutions your monitor displays 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.
- 1310 only

 Based on 64-bit vs. 32- bit and tested using x11perf comparing HP ThinPro 6.1 on an HP 1620 Thin Client vs, HP ThinPro 5.2 on a similarly configured HP 1620 Thin Client.
- 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 v.5.0), AMD processing technology, and a Citrix® virtual desktop infrastructure—XenApp® or XenDesktop® v7.0 or higher or WES 7E 32-bit, Windows 10 IoT with a Citrix® 4.4 receiver and Citrix® virtual desktop infrastructure—XenApp® or XenDesktop® v7.0 or higher. HP True Graphics is preinstalled on the OS starting with HP ThinPro 5.2. See product QuickSpecs for exact compatibility. 4.
- He Remote Graphics Software requires Windows and internet connection.

 This system requires a 4-bit operating system and 64-bit is oftware products to take advantage of the 64-bit processing capabilities of AMD technology. Multi-core processing available with AMD technology is designed to improve performance of this system circuit in the control of the system including a 64-bit operating system will vary.

 Multi-Core is designed to improve performance of capabilities of AMD technology. Multi-core processing available with AMD technology is designed to improve performance of this system will vary.

 Multi-Core is designed to improve performance of capabilities of AMD technology. Performance will vary depend in go nyour hardware and software configurations. Intel®
- 7. AMD's numbering is not a measurement of clock speed.

- Maximummerny capacities assurement of the Configuration of the Configura
- Touchscreen support varies by OS. Not supported by Windows Embedded Standard 7E, Windows CE, or HP Smart Zero Client Technology.
- Wi-Fi and WNAN modules are sold as optional modules and must be configured at the factors. WWAN requires a separately purchased service contract with a wireless service provider. Check with service contract have been serviced by the configured at the factors. AG LTE not available on all products, in all regions.

 The Wi-Fi adapter provides WI-MAN requires where service is required and is not included with the purchase of a Wi-Fi adapter. Availability of public wireless will be a wireless access point and internet service is required and is not included with the purchase of a Wi-Fi adapter. Availability of public wireless will be a wireless access points limited. The specifications of the MOZ.11ac WI-MAN devices.
- w.LAN are draft specifications and are not mail. If the minis pecifications differ from the draft specifications, it may affect the a Options sold separately. Availability varies by country.

 EPEATP egistered where applicable. EPEAT registration varies by country. See <u>eneat net f</u>or registration status by country.

 Windows Embedded Standard 7 products require 8 GB or more Flash memory.

 Configurable for one protocolat a time.

 HP Easy Shell is currently available on HP Thin Clients with a Windows Embedded OS.

- 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 requirements may apply over time for updates. See http://www.windows.com. Graphics performance is not available for other use by other programs. WES 7E is a 32-bit operating system and only recognizes up to 3.2 GB RAM. 19.
- External power adapters, power cords, cables and peripherals are not low halogen; service parts obtained aftermarket may not be low halogen.

- An optional AMD FirePro[™] W2100 discrete graphics solution provides two additional digital video streams for a system total of six video outputs.
 Fiber NIC cannot be installed simultaneously, with Wi-Fi.
 You can configure an additional port between one of three optionall/O features: Serial, VGA or an External Antenna port. The optional VGA port does not increase the number of supported displays.
 The DisplayPortTM did not pass VESA 1.2 certification guidelines.
- Treadici Desktop Access one (1) year subscription included. Proof of purchase required. Trial begins on date of hardware purchase. PCoIP Zero Clients purchase must be more recent than December 1, 2017. For more information, visit teradici.com. HD content required to view HD images.

 HP Surve News to optional and must be configured at purchase.

 The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network

- infrastructure is required

 30. Microsoft Defender Opt in and internet connection required for updates.

 31. Supports any x86 hardware device (32-bit and 64-bit). License available for one device (PC or USB) to use HP ThinPro PC Converter and manage with HP Device Manager. HP Care Service maintenance and updates available for 1 or 3-year terms

 32. Internet convolved on signature in the internet connection required for updates.

 33. Supports any x86 hardware device (32-bit and 64-bit). License available for 1 or 3-year terms

 34. Internet convolved on signature in the internet connection required for updates.

© Copyright 2013-2018 HP Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Microsoft and Windows are U.S. engistered trademarks of a flut (or Devices, Inc. Linux is the registered trademark of Linux Torvalds in the U.S. and other countries. AND is a trademark of Advanced Micro Devices, Inc. Linux is the registered trademark of Linux Torvalds in the U.S. and other countries. ENERGY STAR® is a registered mark owned by the US Environmental Protection Agency. Java is a registered trademark of Oracle and/or its affiliates. ARM is a trademark or registered trademark of ARM Ltd or its subsidiaries. Citiris® and XenDesktop® are trademarks. of Citrix Systems®, Inc. and/or one or more of its subsidiaries, and may be registered in the United States Patent and Trademark Office and in other countries. All other trademarks are property of their respective owners. DisplayPort® and the DisplayPort® long are trademarks or works. SinglayPort® long are trademarks are covered by one or more of the Countries. Bluetooth is a trademark owned by its proprietor and used by HP Inc. under license. VMware products are covered by one or more patents listed at http://www.vmware.com/go/patents. Whware is a registered trademark or trademark of VMware, inc. in the United States and/or other jurisdictions. USB Type-C[™] and USB-C[™] are trademarks of USB Implementers Forum. SD, SDHC, and SDXC are trademarks or registered trademarks of SD-3C in the United States, other countries or both. To learn more, visit hp.com.

