Product guide

Ultimate value for today's enterprise

HP PageWide Enterprise Color MFP 586 series
HP PageWide Enterprise Color 556 series

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Unbeatable value, security, and speed for leading enterprises

Get the ultimate value—these HP PageWide devices deliver the fastest speeds[1] and deepest security[2] for up to 20% lower total cost of ownership (TCO) than most competitors.[3] Efficient, reliable HP PageWide Technology is engineered to use less energy than lasers.[4] With a maximum input capacity of 2,050 sheets[5] and optional extra-high-yield cartridges,[6] workgroups experience fewer interruptions and stay productive.

Who can benefit?

These PageWide devices are ideal for workgroups of 5 to 15 users printing 2,000 to 7,500 pages per month, who need professional-quality colour documents—without the wait. Accelerate productivity with automatic two-sided printing, an intuitive colour touchscreen, and easy mobile printing options.[7] Gigabit Ethernet and wireless printing options help your team stay connected.[8] Centralise control of your printing environment with HP Web Jetadmin.[9] And as your organisation's needs change, extensibility options enable you to easily upgrade or add new features. Choose the Flow MFP 586z model for additional workflow features like a pull-out keyboard for smooth data entry and advanced scanning and routing options.

HP JetAdvantage

Business Workflow and Printing Solutions

Streamline crucial business processes and tasks, using powerful HP solutions for printing and imaging. With the latest workflow and productivity tools for efficient fleet management, you can reduce IT workload and costs, boost employee performance, and enable users to print safely—wherever business demands. Learn more at hp.com/go/printingsolutions.

HP PageWide Enterprise Color Flow MFP 586z shown

Product walk-around: MFP 586 series

1   100-sheet automatic document feeder (ADF) with single-pass, two-sided scanning; 586z model also includes HP EveryPage

2   Intuitive 20.3 cm pivoting colour touchscreen

3   Flatbed scanner handles up to 216 x 356 mm paper

4   Hardware integration pocket[10] for solution integration

5   Easy-access USB port to save and print files directly

6   Pull-out keyboard for easy, accurate data entry (586z model only)

7   Front door access to ink cartridges

8   Built-in automatic two-sided printing

9   50-sheet multipurpose tray 1

10 500-sheet input tray 2

11 300-sheet output bin

12 HP High-Performance Secure Hard Disk

13 Fax port

14 Slot for cable-type security lock

15 Hi-Speed USB 2.0 printing port

16 Built-in Gigabit Ethernet

17 USB port for connecting external USB devices

Front view

Rear I/O panel close-up

Series at a glance

Model (product number)	MFP 586dn (G1W39A)	MFP 586f (G1W40A)	Flow MFP 586z (G1W41A)
50-sheet multipurpose tray 1; 500-sheet tray 2	✓	✓	✓
1x500-sheet paper tray	Optional	Optional	Optional
3x500-sheet paper tray and stand	Optional	Optional	Optional
Printer cabinet and stand	Optional	Optional	Optional
HP High-Performance Secure Hard Disk	✓	✓	✓
Scan speed (single-pass, two-sided, A4)[11,12]	Up to 44 images per minute (ipm), black; up to 40 ipm, colour	Up to 44 ipm, black; up to 40 ipm, colour	Up to 70 ipm, black and colour
Wireless direct printing[13]/NFC[14]	Optional	Optional	Optional
Fax	Optional	✓	✓
Advanced workflow features, including pull-out keyboard and HP EveryPage	Not available	Not available	✓

Optional paper-handling accessories: MFP 586 series

MFP; 1x500 sheet feeder (G1W43)

MFP; single cabinet/stand (G1W44A)

MFP; 1x500 feeder tray 3 (G1W43); cabinet/stand (G1W44)

MFP; 3x500 feeder/stand (G1W45A)

Product comparison: MFP 586 series

The following table compares the new HP PageWide Enterprise Color Flow MFP 586z with the HP Officejet Enterprise Color Flow MFP X585z.

HP PageWide Enterprise Color Flow MFP 586z	HP Officejet Enterprise Color Flow MFP X585z	Benefits
Best-in-class print speed[1] (black and colour, letter and A4): up to 50 pages per minute (ppm)[15]	Print speed (black and colour): up to 44/42 ppm (letter/A4)[15]	Save time with up to 14% faster print speed, Professional mode
First page out (FPO) from ready as fast as 7.1/7.3 seconds (black/colour)[16]	FPO from ready as fast as 8 seconds[16]	Wait less, do more—up to 13% faster FPO (black) and up to 10% faster (colour)
HP Sure Start, whitelisting, and run-time intrusion detection	HP Sure Start not available Whitelisting and run-time intrusion detection available with firmware upgrade	Key security technologies designed to thwart attackers' efforts and self-heal
Maximum input capacity: 2,050 sheets[5]	Maximum input capacity: 1,050 sheets[5]	Meet high-volume demands—up to 95% more input capacity
Ink cartridge options: • Standard (A): 6,000 pages (black and colour)[17] • High-yield (X): 11,000/10,000 pages (black/colour)[6] • Extra-high-yield (Y): 20,000/16,000 pages (black/colour)[6]	Standard (A): 10,000/6,600 pages (black/colour)[18]	Less intervention—up to 100% more black pages and up to 142% more colour pages
Typical Electricity Consumption (TEC): 1.877 kWh/Week	TEC: 2.8 kWh/Week	Save resources with up to 49% lower TEC

Product walk-around: 556 series

1. Intuitive 10.9 cm pivoting colour touchscreen
2. Hardware integration pocket[10] for solution integration
3. Easy-access USB port to save and print files directly
4. Front door access to ink cartridges
5. 50-sheet multipurpose tray 1
6. Built-in automatic two-sided printing
7. 500-sheet input tray 2
8. 500-sheet input tray 3 (standard on 556xh, optional on 556dn)
9. 300-sheet output bin
10. Slot for cable-type security lock
11. HP High-Performance Secure Hard Disk (556xh model only)
12. Hi-Speed USB 2.0 printing port
13. Built-in Gigabit Ethernet
14. USB port for connecting external USB devices

Front view

Rear I/O panel close-up

Series at a glance

Model	556dn	556xh
Product number	G1W46A	G1W47A
50-sheet multipurpose tray 1; 500-sheet tray 2	✓	✓
1x500-sheet tray 3	Optional	✓
3x500-sheet paper tray and stand	Optional	Optional (after removing Tray 3 included with printer)
Printer cabinet and stand	Optional	Optional
HP High-Performance Secure Hard Disk	Not available	✓
Wireless direct printing[13]/NFC[14]	Optional	✓

Optional paper-handling accessories: 556 series

556dn printer; 1x500 sheet feeder (G1W43)

556dn printer; single cabinet/stand (G1W44A)

556dn printer; 1x500 feeder tray 3 (G1W43) and cabinet/stand (G1W44)

556dn printer; 3x500 feeder/stand (G1W45A)

556xh printer; single cabinet/stand (G1W44A)

Product comparison: 556 series

The following table compares the new HP PageWide Enterprise Color 556xh with the HP Officejet Enterprise Color X555xh.

HP PageWide Enterprise Color 556xh	HP Officejet Enterprise Color X555xh	Benefits
Best-in-class print speed[1] (black and colour, A4): up to 50 ppm[15]	Print speed (black and colour): up to 42 ppm, A4[15]	Save time with up to 19% faster print speed, Professional mode
HP Sure Start, whitelisting, and run-time intrusion detection	HP Sure Start not available Whitelisting and run-time intrusion detection available with firmware upgrade	Key security technologies designed to thwart attackers' efforts and self-heal
Maximum input capacity: 2,050 sheets[5]	Maximum input capacity: 1,050 sheets[5]	Meet high-volume demands—up to 95% more input capacity
Ink cartridge options: • Standard (A): 6,000 pages (black and colour)17 • High-yield (X): 11,000/10,000 pages (black/colour)6 • Extra-high-yield (Y): 20,000/16,000 pages (black/colour)[6]	Standard (A): 10,000/6,600 pages (black/colour)[18]	Less intervention—up to 100% more black pages and up to 142% more colour pages
TEC: 0.877 kWh/week (Blue Angel)	TEC: 1.2 kWh/week (Blue Angel)	Save resources with up to 27% lower TEC

Key benefits at a glance

Power office productivity and simplify tasks with PageWide devices that offer enterprise-level features and functionality. Proven PageWide Technology delivers fast speeds so you don't have to wait. Designed to use less energy than lasers,[4] so you can conserve energy without sacrificing quality or reliability.

Exceptional value, the results you expect

- Get the professional-quality colour you need from a device that delivers up to 20% lower total cost of ownership than most competitors.[3]
- Rely on Original HP PageWide cartridges to deliver durable prints that last.
- Print more pages, with fewer interruptions using optional Original HP PageWide high-yield or extra-high-yield cartridges.[6]
- Spend less time and budget on maintenance with streamlined HP PageWide Technology.[19]

Unbeatable productivity for the enterprise

- Save time with best-in-class print speeds[1]—up to 75 ppm (General Office mode) in colour and black-and-white.
- Grab the documents you need and go—the first page prints in as fast as 7.1/7.3 seconds (black/colour).[16]
- Meet high-volume demands with an optional maximum paper capacity of up to 2,050 sheets.[5]
- Easily access, print, and share resources with Gigabit Ethernet and optional wireless networking.[8]
- Get fast, two-sided scanning with an MFP that captures both sides of the page at once (MFP 586 series).[12]
- Streamline workflows by selecting the Flow MFP 586z—includes integrated keyboard, HP EveryPage, built-in Optical Character Recognition (OCR),[20] and more.

Unparalleled fleet security and management

- Gain peace of mind with embedded security settings (200+ for MFP 586 series and 100+ for 556 series)[21]—including HP Sure Start, whitelisting, run-time intrusion detection that detect security threats and heal your device.
- Centrally monitor and control your printing environment with HP Web Jetadmin.[9]
- Give workgroups what they need to succeed. Easily choose and deploy over 175 HP and third-party solutions.
- Employ policy-based, fleet-wide protection, using optional HP JetAdvantage Security Manager.[22]

Proven, efficient technology

- Minimise interruptions and downtime with HP PageWide Technology that delivers the reliable performance businesses demand.
- Keep productivity up and energy use down with an efficient printer or MFP designed to use less energy than lasers.[4]

Exceptional value, the results you expect

Count on exceptional value and the results enterprises need to stay ahead. These PageWide devices are engineered to produce professional-quality colour documents for up to 20% lower total cost of ownership than most competitors.[3]

Keep productivity up and costs down

Depend on unbeatable lasting value and keep your budget in check. Produce high-impact colour documents with an efficient, reliable device that delivers up to 20% lower total cost of ownership than most competitors.[3]

Professional-quality colour and black text

Produce vibrant colour and sharp, black text that's perfect for office use. Reliably print reports, memos, emails, and other business documents on a variety of papers.

Improve the quality of your printed documents by choosing papers with ColorLok® Technology. Colours are brighter, producing rich, vivid images and graphics. Blacks are bolder to improve contrast and sharpen text.[23]

Durable prints that last

Rely on Original HP PageWide cartridges to deliver durable documents that stand up to highlighters and resist water, smearing, and fading.[24]

Affordable, high-volume printing

Print longer and spend less time replacing cartridges with optional Original HP PageWide cartridges:

- Extra-high-yield cartridges let you print 20,000 black pages and up to 16,000 colour pages—more than 2.5 times as many pages as standard cartridges, before replacing them.[6]

- High-yield cartridges let you print up to 11,000 black pages and 10,000 colour pages—about 40% more pages than standard cartridges—before replacing them.[6]

Spend less on maintenance

Minimise the time and budget spent on scheduled printer maintenance—streamlined HP PageWide Technology requires fewer replaceable parts than most laser printers.[19]

Unbeatable productivity for the enterprise

Elevate workgroup productivity with best-in-class print speeds.[1] With the first page printing in as fast as 7.1 seconds (black),[16] your team will accomplish more. The MFP 586 series offers fast single-pass two-sided scanning. Scan documents directly to email, USB, and network folders.[12] For more advanced workflow capabilities, select the Flow MFP 586z.

Best-in-class print speeds[1]

Spend less time waiting and accomplish more. HP PageWide Technology delivers best-in-class print speeds[1]—up to 75 ppm (General Office mode)—for both colour and black-and-white.

Grab the documents you need and go. These PageWide devices print the first page in as fast as 7.1/7.3 seconds (black/colour),[16] so documents are ready right when you need them.

Meet high-volume demands

Expand your capacity and let large print jobs handle themselves. These devices have an optional maximum paper capacity of up to 2,050 sheets to meet high-volume demands without having to stop and add paper.[5]

Print directly from mobile devices—no network needed

Use optional, 128-bit encrypted wireless direct printing[13] (standard on the 556xh model only) to help keep data secure in transit and at rest—without accessing the company network—using smartphones, tablets, and notebook PCs. Automatically discover the nearest printer and save time. Add the option to print with just a touch of your NFC-enabled[14] smartphone or tablet to these PageWide devices (standard on the 556xh model). There's no need to search through a long list of devices—or connect to the network.

If you're looking to deploy mobile printing across a printer fleet, HP offers server-based solutions that provide secure pull-printing, as well as advanced management and reporting capabilities.[25] HP also provides options to integrate with third-party mobile device management solutions. Learn more at hp.com/go/businessmobileprinting.

Extend your printing reach

Keep your office connected. Built-in Gigabit Ethernet and optional wireless connectivity let your share printing resources on a network.[8]

Simplify tasks with a touch

Make everyday printing more efficient. Equip employees to breeze through tasks and enter PIN numbers at the 10.9 cm colour touchscreen on the 556 series.

Relevant Online Help gives clear instructions, illustrations, and animations.

The 20.3 cm colour touchscreen control panel on the MFP 586 series tilts up for easy viewing by all users. It offers:

- Image preview, which lets you add, delete, reorder, and zoom in on pages.
- Menus that allow you to set system defaults, customise job settings, and launch HP Quick Sets.
- Localised virtual keyboards.

For more details, see Appendix C, "Control panel features," on page 25.

Get more done, faster, with advanced workflow features

In addition to the standard workflow features, the Flow MFP 586z model includes the following enhancements:

- Faster scan speeds; two-sided scanning projects are done in a flash—up to 70 ipm[11]

- HP EveryPage Technology, which helps capture every page and detect potential errors or missed pages on the spot—even when the weight, size, or condition of pages vary

- An extended life ADF, with up to 13,900-page recommended monthly scan volume

- A large pull-out keyboard for faster, more accurate data entry

- Built-in optical character recognition (OCR), for editable and searchable scans[20]

- Auto-orientation, auto-page-crop, and auto-tone (for contrast, brightness, and background removal of each page)

- Send to Microsoft® SharePoint®[12]

Fast single-pass two-sided scanning[12]

The MFP 586 series enables you to scan stacks of paper files fast—up to 44/40 ipm, black/colour (586dn/f) and up to 70 ipm, black and colour (586z)[11]—with two-sided scanning that captures both sides of the page at once. With the ADF, you can automatically:

- Detect and remove blank pages from scanned documents, reducing file size

- Deskew sheets that are not inserted quite straight

- Determine the best output format and exposure for the data content

- Classify input original as either colour or non-colour

Job build allows you to scan additional items on the glass and insert them into the scanned file wherever you decide—before hitting "Send."

Use multiple functions at once

The MFP 586 series allows you to queue jobs, embed solutions, and use multiple functions at once—scan, copy, and fax[26] while someone else is printing. Queue the next fax job before the first has completed sending.

Scan and send right to your destination

Easily integrate paper documents into the digital workflow—send scanned documents from the MFP 586 series directly to a variety of destinations like email recipients, network folders, or LAN fax addresses, with no need for middleware.[12] Built-in LDAP addressing simplifies email distribution.

The Send-to-Email Default Setup Wizard and the Save-to-Folder Quick Set Wizard help you quickly and easily configure your HP MFP's digital sending features.

Make copies and send faxes with ease

The MFP 586 series may be used as a standalone, walk-up copier. Place your originals on the scanner glass or use the automatic document feeder and adjust all copy settings at the control panel.

Quickly and easily send and receive faxes using the control panel icon (standard on the 586f/z models).[26]

Optional HP JetAdvantage Workflow Solutions

HP Embedded Capture

Capture and send without relying on a server

HP Embedded Capture simplifies capture tasks, so scanning and distributing information is as easy as pressing a button. And since it's installed directly on your MFP, it minimises downtime.

To learn more, visit hp.com/go/hpembeddedcapture.

HP Digital Sending Software

Streamline document handling with a server-based solution

Maximise return on your IT investment with a capture and send software that leverages existing IT infrastructure and uses a common administrative utility and end-user interface, so you can use it across multiple HP devices and device types.

To learn more, visit hp.com/go/dss.

HP Capture and Route

Capture, manage, and store all your information

HP Capture and Route is a scalable solution that makes it easy for your team to control and track scanned content, and distribute documents with the touch of a button to back-office applications, fax lines, online destinations such as Microsoft SharePoint and Autonomy iManage, as well as cloud based repositories.

To learn more, visit hp.com/go/captureandroute.

Unparalleled fleet security and management

Count on strong protection for devices, data, and documents with the deepest embedded printer security from HP,[2] and centrally manage your entire fleet with ease.

HP FutureSmart Firmware

Upgrade these devices on your schedule, whenever solutions advance. Add new features—such as workflow and security enhancements—without having to purchase new hardware. A consistent user interface and menu design across all HP FutureSmart devices—including the HP PageWide Enterprise devices—makes the user experience intuitive and familiar. To learn more, visit hp.com/go/futuresmart.

Print only what you need—straight to the right hands

Increase security, restore control, and help avoid additional expenses. Optional HP JetAdvantage Private Print[27] helps prevent unauthorised access to confidential print jobs stored in the cloud. Users get the flexibility to pick up jobs at any compatible device. For more information, visit hpjetadvantage.com/ondemand.

Built-in security for greater protection

Gain peace of mind with multi-level, built-in security features that detect threats and heal your device. HP Sure Start validates the integrity of the BIOS code, whitelisting ensures only authentic, known-good HP code is loaded into memory, and run-time intrusion detection detects anomalies during complex firmware and memory operations. Each feature automatically triggers a reboot if attacked.

Plus, the MFP 586 series comes with more than 200 embedded security settings (more than 100 for the 556 series) to help safeguard your sensitive business information.[21] For more information, see Appendix A, "Security features" on page 21.

Opt for tighter security

Further safeguard information in transit over the network and stored on the device—keys, passwords, certificates and more—using the encrypted HP High-Performance Secure Hard Disk (MFP 586 series and 556xh model) and optional HP Trusted Platform Module.[28]

Upgrade your memory to store and protect large files

Equip your printer to handle larger files. Choose the optional 1 GB memory upgrade and easily store sizable print jobs—and help keep them protected.

Expand the capabilities of your device

Do more with your investment and give workgroups tools for success. Choose from various interfaces and up to 180 HP and third-party solutions that leverage the HP Open Extensibility Platform available through the HP JetAdvantage partner program. Add features like card readers and more through the Hardware Integration Pocket.[10]

Streamline fleet management

Centralise control of your printing and imaging environment with HP Web JetAdmin.[9] Easily add new devices and solutions, update features, and apply corporate policies to help build business efficiency.

The HP Universal Print Driver (UPD) is the single driver that gives users instant access to a range of HP print devices without downloading separate drivers.[29]

Optional HP JetAdvantage Security Manager delivers the most comprehensive printing security in the market, with policy-based protection for printing and imaging devices.[22]

For more information, see Appendix A, "Security features" on page 21 and Appendix B, "Fleet management features" on page 24.

Proven, efficient technology

Minimise interruptions and downtime with efficient, reliable performance. Conserve resources with a device designed to use less energy than lasers.[4] HP PageWide Technology is ideal for today's busy office.

Proven, reliable technology

Avoid snags in your workflow. HP PageWide Technology was designed to minimise workgroup interruptions and downtime while delivering fast, reliable results—for proven performance businesses demand.

Printers with HP PageWide Technology are designed and built to be robust. They provide easy maintenance and support high-volume printing. HP PageWide Enterprise 556 and MFP 586 series have a recommended monthly page volume of up to 7,500 pages.[30]

HP PageWide Technology is the secret behind the exceptional speed and reliability of these devices. The printhead spans the entire width of the paper, enabling single-pass printing at incredibly fast speeds. This is the same HP PageWide Technology found in top-end digital presses.

The printhead contains a massive number of tiny ink ejectors—over 42,000 of them positioned to span across the width of the page. As the paper passes under the printhead, ejectors release a minute drop of black or colour ink at precisely the right location to form the printed image—providing you with the professional-quality colour documents your business needs.

Less energy use than lasers[4]

Help keep productivity up and energy use down. This efficient device is designed to use less energy than devices in its class.[4]

These PageWide devices are Blue Angel compliant and ENERGY STAR® certified and lead the competition in energy efficiency.[4] Help cut costs with HP Auto-Off Technology[31]—intelligence that turns the device off when you don't need it.

Highest yields, fewest interruptions[6]

Print up to 16,000 colour pages and up to 20,000 black-and-white pages from a single extra-high-yield cartridge—and go longer between replacements than standard cartridges.[6] Original HP PageWide extra-high-yield cartridges let you print again and again—without interruption.

Cartridges designed for your printer

Get professional-quality colour documents and the performance you expect. Only Original HP PageWide cartridges are specially designed and precisely engineered for HP printers and MFPs—so you can count on fast, consistent results.

Technical specifications

	HP PageWide Enterprise Color 556dn	HP PageWide Enterprise Color 556xh	HP PageWide Enterprise Color MFP 586dn	HP PageWide Enterprise Color MFP 586f	HP PageWide Enterprise Color Flow MFP 586z
Product number	G1W46A	G1W47A	G1W39A	G1W40A	G1W41A
Control panel/data entry	10.9 cm (4.3-inch) colour touchscreen with adjustable angle display; illuminated Home button		20.3 cm (8-inch) colour touchscreen with adjustable angle display; illuminated Home button		
					Plus: pull-out keyboard
Print speed, A4 and letter[15]					
Single-sided	Black and colour: up to 50 ppm, Professional mode; up to 75 ppm, General Office mode				
Two-sided	Black and colour: up to 25 ipm, Professional mode; up to 38 ipm, General Office mode				
First page out (A4 and letter)[16]	From ready: as fast as 7.1/7.3 seconds, black/colour *(all models)* From sleep: as fast as 14/15 seconds, black/colour *(all models)*				
Print resolution					
Black	Up to 1200 x 1200 optimised dpi from 600 x 600 input dpi (on ColorLok, Plain, HP Premium Inkjet Presentation Matte, and HP Inkjet Brochure Matte)				
Colour	Up to 2400 x 1200 optimised dpi from 600 x 600 input dpi (on HP Advanced Photo Papers)				
Print features	HP PageWide Technology with pigmented inks, print preview, print multiple pages per sheet (2, 4, 6, 9, 16), collation, watermarks, store print jobs, job separator, print from easy-access USB: PDF, PS, print-ready files (.prn, .pcl, .cht)				
Scan features					
Simplex scan speed[11]	Scanning not available		Black: up to 44 ipm, A4 (up to 46 ipm, letter) Colour: up to 40 ipm, A4 (up to 42 ipm, letter)		Black and colour: up to 45 ipm, A4 (up to 47 ipm, letter)
Two-sided scan speed[11]			Black: up to 44 ipm, A4 (up to 46 ipm, letter) Colour: up to 40 ipm, A4 (up to 42 ipm, letter)		Black and colour: up to 70 ipm, A4 (up to 74 ipm, letter)
Scan type and size			Flatbed: 216 x 356 mm (8.5 x 14 in) maximum; no minimum ADF: 216 x 356 mm (8.5 x 14 in) maximum; 105 x 127 mm (4.1 x 5 in) minimum		
Scan resolution/ bit depth			Up to 600 x 600 dpi; 24-bit; grayscale levels: 256		
TWAIN version			Version 2.1		
Scan input modes			Front panel applications: Copy, Email, Fax, Save to Network Folder, Save to USB, Save to Device Memory, Open Extensibility Platform (OXP) applications		
					Plus: Save to SharePoint[12]
Digital sending			Scan to Email, Save to Network Folder, Save to USB drive, Send to FTP, Send to Internet Fax, Local Address Book, SMTP over SSL, blank page removal, edge erase, auto colour sense, auto crop to content, compact PDF		
				Plus: Send to LAN Fax	Plus: Send to LAN Fax, Send to SharePoint, auto tonescale, auto orientation, multi-pick detect, auto straighten, auto crop-to-page, OCR

	HP PageWide Enterprise Color 556dn	HP PageWide Enterprise Color 556xh	HP PageWide Enterprise Color MFP 586dn	HP PageWide Enterprise Color MFP 586f	HP PageWide Enterprise Color Flow MFP 586z
Scan file formats			Digital send, scan to easy-access USB: PDF, JPEG, TIFF, MTIFF, XPS, PDF/A		
					Plus: TEXT (OCR), Unicode TEXT (OCR), RTF (OCR), Searchable PDF (OCR), Searchable PDF/A (OCR), HTML (OCR), CSV (OCR)
Scanner smart software			Optimise text/picture, Image adjustments, Job build, Output quality setting, Selectable scan resolution 75 to 600 dpi, Auto detect colour, Edge Erase, Job notification, Blank page suppression, HP Quick Sets		
					Plus: HP EveryPage

Copy features

Copy resolution	Copying not available		Black text and graphics: up to 600 x 600 dpi (flatbed), 450 x 600 dpi (ADF) Colour text and graphics: up to 600 x 600 dpi (flatbed), 300 x 600 dpi (ADF)		
ADF copy speed[32]			Up to 50 copies per minute (cpm), A4 and letter (laser comparable) First copy out: as fast as 7/9 seconds (black/colour), A4 and letter		
Copier smart software			Auto scale, reduce/enlarge from scanner glass (25 to 400 percent), collate, auto colour detection, two-sided copying, image adjustments (darkness, background cleanup, sharpness), job build		
Copier settings			Up to 9999 copies, two-sided copying, scalability, image adjustments (darkness, contrast, background cleanup, sharpness), N-up, N or Z-ordering, content orientation, collation, booklet, ID Scan, job build, edge-to-edge, job storage		

Fax features

Fax resolution	Faxing not available			Black (standard): 204 x 98 dpi, black-and-white (fine): 204 x 196 dpi, black (photo grayscale and best): up to 300 x 300 dpi (400 x 400 dpi for received faxes only)	
Fax speed[33]				Up to 33.6 kbps	
Fax settings				Auto fax reduction (fit to letter or A4), auto-redialling, two-sided faxing, broadcasting up to 210 locations, fax forwarding, speed dealing up to 1000 numbers (each with 210 destinations) storable in memory, fax polling supported (receive only), junk barrier, PC interface	

Processor	1.2 GHz *(all models)*				
Memory	1280 MB standard, 2304 MB maximum; upgradeable with 1 GB DIMM (1 slot, 144-pin DDR3 DIMM)		2048 MB standard, 2816 MB maximum; upgradeable with 1 GB DIMM (1 slot, 144-pin DDR3 DIMM)		
Hard disk	Not available		Standard, embedded HP High-Performance Secure Hard Disk, minimum 320 GB; AES 256 hardware encryption or greater; Secure erase capabilities (Secure File Erase-Temporary Job Files, Secure Erase-Job Data, Secure ATA Erase-Disk)		
					U.S. Government: Standard, FIPS 140-2 validated hard disk, minimum 500 GB

Durability ratings

RMPV (recommended monthly page volume)[30]	2,000 pages to as high as 7,500 pages *(all models)*				

	HP PageWide Enterprise Color 556dn	HP PageWide Enterprise Color 556xh	HP PageWide Enterprise Color MFP 586dn	HP PageWide Enterprise Color MFP 586f	HP PageWide Enterprise Color Flow MFP 586z
RMSV (recommended monthly scan volume)[34]			4,150 pages to as high as 6,900 pages		8,350 pages to as high as 13,900 pages
Duty cycle[35]	Up to 80,000 pages *(all models)*				
Media specifications					
Input capacity	Standard: up to 550 sheets; Maximum: up to 2,050 sheets[5] Tray 1: up to 50 sheets; Tray 2: up to 500 sheets	Standard: up to 1,050 sheets; Maximum: up to 2,050 sheets[5] Tray 1: up to 50 sheets; Trays 2 and 3: up to 500 sheets each	Standard: up to 550 sheets; Maximum: up to 2,050 sheets[5] Tray 1: up to 50 sheets; Tray 2: up to 500 sheets		
			ADF: 100 sheets		
Output capacity	Up to 300 sheets *(all models)*				
Two-sided printing	Automatic *(all models)*				
Media sizes	Tray 1: A4, A5, A6, B5 (JIS), B6 (JIS), 16K, 10 x 15 cm, L, Hagaki, envelopes (B5, C5, C6, DL, Chou #3, Chou #4); Letter, legal, oficio, statement, executive, 3 x 5 in, 4 x 6 in, 5 x 7 in, 5 x 8 in, envelopes (No. 10, Monarch); Custom sizes: 76 x 127 to 216 x 356 mm (3 x 5 to 8.5 x 14 in) Tray 2: A4, A5, B5 (JIS), 16K, envelopes (DL, B5, C5, Chou #3); Letter, statement, executive, envelopes (No. 10); Custom sizes: 102 x 210 to 216 x 297 mm (4 x 8.3 to 8.5 x 11.7 in) Optional trays 3, 4, and 5 (tray 3 standard on 556xh only): A4, A5, B5 (JIS), 16K; Letter, legal, oficio, executive, statement Duplex: A4, RA4, B5 (JIS); Letter, legal, oficio, executive				
			ADF: A4, RA4, A5, A6, B5, B6 (JIS), postcard (JIS), double postcard (JIS); Letter, legal, oficio, statement, executive, 4 x 6 in, 5 x 7 in, 5 x 8 in		
Media weights	Tray 1: Plain paper: 60 to 120 g/m² (16 to 32 lb); Photo: 125 to 300 g/m² (33 to 80 lb); Envelope: 75 to 90 g/m² (20 to 24 lb); Brochure: 120 to 180 g/m² (32 to 48 lb); Card: 163 to 200 g/m² (90 to 110 lb) Tray 2: Plain paper: 60 to 120 g/m² (16 to 32 lb); Photo: 125 to 250 g/m² (33 to 66 lb); Envelope: 75 to 90 g/m² (20 to 24 lb); Brochure: 120 to 180 g/m² (32 to 48 lb); Card: 163 to 200 g/m² (90 to 110 lb) Optional trays 3, 4, and 5 (tray 3 standard on 556xh only): Plain paper: 60 to 120 g/m² (16 to 32 lb); Photo: 125 to 250 g/m² (33 to 66 lb); Brochure: 120 to 180 g/m² (32 to 48 lb); Card: 163 to 200 g/m² (90 to 110 lb) Duplex: Plain paper: 60 to 120 g/m² (16 to 32 lb); Brochure: 120 to 180 g/m² (32 to 48 lb); Card: 163 to 200 g/m² (90 to 110 lb)				
			ADF: 45 to 199 g/m² (12 to 53 lb)		
Media types	Plain paper (light, intermediate, mid-weight, heavy, extra heavy, prepunched, recycled, bond, other inkjet plain paper), photo (glossy, gloss, soft gloss, satin, matte, other inkjet photo), envelopes, labels, cards, specialty papers (glossy brochure, matte brochure, tri-fold brochure, Hagaki, greeting cards, other inkjet specialty paper)				
Print languages	HP PCL 6, HP PCL 5 (HP PCL 5 driver available from the Web)		HP PCL 6, HP PCL 5c, HP postscript level 3 emulation, native PDF printing (v 1.7)		
Fonts	105 internal TrueType fonts scalable in HP PCL, 92 internal scalable fonts in HP Postscript level 3 emulation (Euro symbol built-in); 1 internal Unicode Fonts (Andale Mono WorldType); 2 Internal Windows Vista® 8 Fonts (Calibri, Cambria); additional font solutions available via third-party flash memory cards; HP LaserJet Fonts and IPDS Emulation available at hp.com/go/laserjetfonts				
Connectivity	2 Hi-Speed USB 2.0 Host; 1 Hi-Speed USB 2.0 Device; Gigabit Ethernet 10/100/1000T network; Hardware Integration Pocket				
				Plus: Fax modem port	
Networking capabilities	Standard: via HP Jetdirect Ethernet embedded print server supports: 10Base-T, 100Base-Tx, 1000Base-T; 802.3az (EEE) support on Fast Ethernet and Gigabit Ethernet; IPsec				
Mobile printing	Standard: HP ePrint,[36] Apple AirPrint,[37] Mopria-certified,[38] Google Cloud Print™ 2.0				
	Optional: Wireless direct printing[13] and NFC touch-to-print[14]	Plus: Wireless direct printing[13] and NFC touch-to-print[14]	Optional: Wireless direct printing[13] and NFC touch-to-print[14]		

	HP PageWide Enterprise Color 556dn	HP PageWide Enterprise Color 556xh	HP PageWide Enterprise Color MFP 586dn	HP PageWide Enterprise Color MFP 586f	HP PageWide Enterprise Color Flow MFP 586z
Network protocols	IPv4/IPv6: Apple Bonjour Compatible (Mac OS v10.2.4 or higher), SNMPv1/v2c/v3, HTTP, HTTPS, FTP, TFTP, Port 9100, LPD, WS Discovery, IPP, Secure-IPP, IPsec/Firewall IPv6: DHCPv6, MLDv1, ICMPv6 IPv4: Auto-IP, SLP, Telnet, IGMPv2, BOOTP/DHCP, WINS, IP Direct Mode, WS Print Other: ePrint, Google Cloud Print 2.0				
Security	Identity management: Kerberos authentication, LDAP authentication, 1000 user PIN codes, optional HP and third-party advanced authentication solutions (e.g., badge readers) Network: IPsec/Firewall with Certificate, Pre-Shared Key and Kerberos authentication, Supports WJA-10 IPsec Configuration Plug-in, 802.1X authentication (EAP-PEAP, EAP-TLS), SNMPv3, HTTPS, Certificates, Access Control List Data: Storage Encryption, Encrypted PDF and Email (uses FIPS 140-2 validated cryptographic libraries), Secure Erase, SSL/TLS (HTTPS), Encrypted Credentials Device: Security lock slot, USB port disablement, Hardware Integration Pocket for security solutions, HP Sure Start, intrusion detection, whitelisting, optional Trusted Platform Module Security management: Compatible with optional HP JetAdvantage Security Manager[22]				
Printer management	Printer Administrator Resource Kit for HP Universal Print Driver (UPD Active Directory Administrator Template, Add Print Model to Comments, AutoUpgradeUPD, Driver Configuration Utility, Driver Deployment Utility, HP Managed Printing Administration, PRNCON.EXE, HPPRLOG, Migrate-Server-Tools, UpdateNow, Remove Plug Play Drivers); HP Web Jetadmin Software;[9] Resource Kit for HP Web Jetadmin (HP SNMP Proxy Agent, HP WS Pro Proxy Agent); HP JetAdvantage Security Manager [22]				
Compatible operating systems[39]	Windows® OS compatible with In-Box Driver: Windows XP SP3 all 32-bit editions (XP Home, XP Pro, etc.), Windows Vista all 32-bit editions (Home Basic, Premium, Professional, etc.), Windows 7 all 32- and 64-bit editions, Windows 8/8.1 all 32- and 64-bit editions (excluding RT OS for Tablets), Windows 10 all 32- and 64-bit editions (excluding RT OS for Tablets) Windows OS compatible with Universal Print Driver (From HP.com): Windows XP SP3 32- and 64-bit editions (XP Home, XP Pro, etc.), Windows Vista all 32- and 64-bit editions (Home Basic, Premium, Professional, etc.), Windows 7 all 32- and 64-bit editions, Windows 8/8.1 all 32- and 64-bit editions (excluding RT OS for Tablets), Windows 10 all 32- and 64-bit editions (excluding RT OS for Tablets) Mac OS (HP Print Drivers available from HP.com and Apple Store): OS X 10.9 Mavericks, OS X 10.10 Yosemite, OS X 10.11 El Capitan Mobile OS (In-OS drivers): iOS, Android™, Windows 8/8.1/10 RT Linux OS (In-OS HPLIP): SUSE Linux (12.2, 12.3, 13.1), Fedora (17, 18, 19, 20), Linux Mint (13, 14, 15, 16, 17), Boss (3.0, 5.0), Ubuntu (10.04, 11.10, 12.04, 12.10, 13.04, 13.10, 14.04, 14.10), Debian (6.0.x, 7.x) Other OS: UNIX				
Network operating systems	Windows OS compatible with In-Box Driver: Windows Server 2003/2003 R2 32-bit (SP1/SP2) Standard/Enterprise (+ Cluster and Terminal Services), Windows Server 2008 32-/64-bit (SP2) Standard/Enterprise (+ Cluster and Terminal Services), Windows Server 2008 R2 64-bit (SP1) Standard/Enterprise (+ Cluster and Terminal Services) Windows OS compatible with Universal Print Driver (UPD) or Product-Specific drivers from HP.com: Windows Server 2003/2003 R2 32-/64-bit (SP1/SP2), Standard/Enterprise/Datacenter (+ Cluster and Terminal Services), Windows Server 2008/2008 R2 32-/64-bit (SP1/SP2), Standard/Enterprise/Datacenter (+ Cluster and Terminal Services), Windows Server 2012/2012 R2 64-bit, Standard/Foundation/Essentials/Datacenter (+ Cluster and Terminal Services) Citrix (on Windows Server 2003/2003R2), Citrix MetaFrame Presentation Server, 3.0, Citrix MetaFrame XP Presentation Server (Feature Release 1, 2, and 3), Citrix Presentation Server 4.0/4.5, Citrix XenApp 5.0 (Plus Feature Pack 2 and 3), Citrix (on Windows Server 2008/2008R2, Citrix XenApp 5.0 (Plus Feature Pack 2 and 3), Citrix XenApp 6.0/6.5/7.5, Citrix XenDesktop 5.6/7.0/7.5, Citrix (on Windows Server 2012/2012R2), Citrix XenApp 7.5, Citrix XenDesktop 7.0/7.5 Novell Servers: (novell.com/iprint), Novell iPrint Appliance v1.0, Novell Open Enterprise Server 11/SP1, Novell Open Enterprise Server 2 for Linux, NetWare 6.5/SP8, Novell Clients (novell.com/iprint); Windows 8 (32-bit / 64-bit) recommend v5.86+, 8.1 recommend v5.94+, Windows 7 (32-bit / 64-bit) recommend v5.82+, Windows Vista (32-bit / 64-bit) recommend v5.82+, Windows XP / SP3 (32-bit only) recommend v5.82+				
System requirements, PC	See "Compatible operating systems" above; CD-ROM or DVD drive, or Internet connection; dedicated USB or network connection or wireless connection; 200 MB available hard disk space; For OS hardware requirements see microsoft.com				
System requirements, Mac	See "Compatible operating systems" above; Internet, USB, 1 GB available hard drive space; OS compatible hardware (see Apple.com)				

	HP PageWide Enterprise Color 556dn	HP PageWide Enterprise Color 556xh	HP PageWide Enterprise Color MFP 586dn	HP PageWide Enterprise Color MFP 586f	HP PageWide Enterprise Color Flow MFP 586z
Dimensions (width x depth x height)	Operating: 530 x 463 x 457 mm (20.8 x 18.2 x 17.9 in) Maximum: 934 x 745 x 457 mm (36.7 x 29.3 x 17.9 in) (with left door open, main paper tray open)	Operating: 530 x 463 x 597 mm (20.8 x 18.2 x 23.5 in) Maximum: 1038 x 745 x 597 mm (40.8 x 29.3 x 23.5 in) (with accessory tray 3 and left door open, main paper tray open)	Operating: 530 x 564 x 529 mm (20.8 x 22.2 x 20.8 in) Maximum: 934 x 752 x 786 mm (36.7 x 29.6 x 30.9 in) (with left door open, main paper tray open, document feeder lifted)		
Weight (with ink cartridges)	22.2 kg (49 lb)	28.8 kg (64 lb)	32.3 kg (71.2 lb)		
What's in the box	HP PageWide Enterprise Color 556dn Printer	HP PageWide Enterprise Color 556xh Printer	HP PageWide Enterprise Color MFP 586dn	HP PageWide Enterprise Color MFP 586f	HP PageWide Enterprise Color Flow MFP 586z
	Plus: HP Setup Ink Cartridges (yield after setup: ~6,000 pages CMYK);[17] Installation guide, Support flyer; Software drivers and documentation on CD-ROM; Power cord				Plus: HP Setup Ink Cartridges (CMYK: ~6,000 pages each);[17] Installation guide, Support flyer; Software drivers and documentation on CD-ROM; Power cord
Software included	For Windows OS: HP Software Installer/Uninstaller, HP PCL 6 Printer Driver, HP Device Experience (DXP), HP Update, Product Registration Assist, HP Web Services Assist (HP Connected), Online user manuals For Mac OS: Welcome Screen (Directs users to HP.com or OS App Source for printer software)				
			Plus: Setup Scan to Folder and Email		
				Plus: HP Send Fax	
Downloadable software	From HP.com: Windows Full Software Solution, Windows driver only solution, Mac Software Solution, HP Universal Print Drivers (PCL6 and PS for Windows), HP ePrint Software (for Windows), Linux/Unix Print Drivers, HP Web JetAdmin,[9] HP Driver Configuration Utility, HP JetAdvantage Security Manager[22] From other sites: mobile apps				
Warranty	One-year, onsite warranty; one-year technical phone support, chat, and email				

Environmental and power specifications

	HP PageWide Enterprise Color 556dn	HP PageWide Enterprise Color 556xh	HP PageWide Enterprise Color MFP 586dn	HP PageWide Enterprise Color MFP 586f	HP PageWide Enterprise Color Flow MFP 586z
Environmental ranges					
Temperatures	Operating: 15 to 30° C (59 to 86° F)				
	Storage: Before initial setup (Non-Purged): -40 to 60° C (-40 to 140° F); After initial setup (Purged): 0 to 60° C (32 to 140° F)[40]				
Relative humidity range	20 to 60% RH (recommended), 20 to 80% RH (operating), 5 to 90% RH (non-operating)				
Altitude	Not applicable		Up to 3,048 m (up to 10,000 ft)		
Acoustic power emissions[41]	Ready mode: 3.5 B(A); Active printing: 6.9 B(A)		Ready mode: 3.5 B(A); Active printing: 6.8 B(A); Active copying: 7.0 B(A); Active scanning: 6.6 B(A)		
Acoustic pressure emissions (bystander)	Ready mode: 17 dB(A); Active printing: 55 dB(A)		Ready mode: 15 dB(A); Active printing and copying: 55 dB(A); Active scanning: 51 dB(A)		
Power specifications					
Power supply required	Input voltage: 100 to 240 VAC (+/- 10%), 50/60 Hz (+/- 3 Hz)				
Power consumption[42]	Printing: 52 watts; Ready: 12.0 watts; Sleep: 6.3 watts; Manual Off: 0.3 watts; Auto-Off/Manual-On: 0.3 watts	Printing: 52 watts; Ready: 15.0 watts; Sleep: 7.5 watts; Manual Off: 0.3 watts; Auto-Off/Manual-On: 0.3 watts	Printing: 62 watts; Ready: 24.0 watts; Sleep: 8.5 watts; Manual Off: 0.3 watts; Auto-Off/Manual-On: 0.3 watts		Printing: 62 watts; Ready: 26.5 watts; Sleep: 8.5 watts; Manual Off: 0.3 watts; Auto-Off/Manual-On: 0.3 watts
Typical Electricity Consumption (TEC)	0.877 kWh/Week (Blue Angel) 1.340 kWh/Week (ENERGY STAR)	0.877 kWh/Week (Blue Angel) 1.585 kWh/Week (ENERGY STAR)	1.148 kWh/Week (Blue Angel) 1.869 kWh/Week (ENERGY STAR)		1.148 kWh/Week (Blue Angel) 1.877 kWh/Week (ENERGY STAR)
Energy-saving features	HP Auto-Off Technology[31]				
Environmental specifications	Blue Angel compliant; ENERGY STAR certified				
Safety and regulatory compliance	IEC 60950-1:2005 +A1:2009 +A2:2013; EN60950-1:2006 +A11:2009 +A1:2010 +A12:2011 +A2:2013 / +AC:2011; EN62479:2010 / IEC 62479:2010; Compliance of IEC 60950-1 standard considers all country deviations according to the most recent IECEE CB Bulletin. UL/cUL Listed and UC CoC (US/Canada); GS Certificate (Germany, Europe); Low Voltage Directive 2006/95/EC with CE Mark (Europe)				
Electromagnetic emission standard	CISPR 22:2008 Class A, EN 55022:2010 Class A, FCC CFR 47 Part 15, ICES-003, Issue 5, EN 55024:2010, EN 61000-3-2:2006 +A1:2009 +A2:2009, EN 61000-3-3:2008, Other EMC approvals as required by individual countries				
Telecom Compliance Certification		Wi-Fi: EN 301 489-1 v1.9.2, EN 301 489-17 v2.2.1, EN 300 328 v1.8.1, FCC Title 47 CFR, Part 15 Subpart C (Section 15.247)/IC:RSS-210, EN 62311:2008/ IEC62311:2007			Wired: ES 203 021-1 v2.1.1, ES 203 021-2 v2.1.2, ES 203 021-3 v2.1.2, R&TTE Directive 1999/5/EC with CE marking (Europe), FCC Rules and Regulations 47 CFR Part 68; other Telecom approvals as required by individual countries.

Ordering information

Use accessories and supplies specifically designed for the printer or MFP to help provide efficient performance. To order the accessories and supplies listed here, go to hp.com. To contact HP by country, please visit hp.com/country/us/en/wwcontact_us.html.

If you don't have access to the Internet, contact your qualified HP dealer, or call HP (U.S.) at (800) 282-6672.

Product	HP PageWide Enterprise Color 556dn	G1W46A
	HP PageWide Enterprise Color 556xh	G1W47A
	HP PageWide Enterprise Color MFP 586dn	G1W39A
	HP PageWide Enterprise Color MFP 586f	G1W40A
	HP PageWide Enterprise Color Flow MFP 586z	G1W41A
Supplies[6,17]	HP 981A Black Original PageWide Cartridge (~6,000 pages)	J3M71A
	HP 981X High Yield Black Original PageWide Cartridge (~11,000 pages)	L0R12A
	HP 981Y Extra High Yield Black Original PageWide Cartridge (~20,000 pages)	L0R16A
	HP 981A Cyan Original PageWide Cartridge (~6,000 pages)	J3M68A
	HP 981X High Yield Cyan Original PageWide Cartridge (~10,000 pages)	L0R09A
	HP 981Y Extra High Yield Cyan Original PageWide Cartridge (~16,000 pages)	L0R13A
	HP 981A Magenta Original PageWide Cartridge (~6,000 pages)	J3M69A
	HP 981X High Yield Magenta Original PageWide Cartridge (~10,000 pages)	L0R10A
	HP 981Y Extra High Yield Magenta Original PageWide Cartridge (~16,000 pages)	L0R14A
	HP 981A Yellow Original PageWide Cartridge (~6,000 pages)	J3M70A
	HP 981X High Yield Yellow Original PageWide Cartridge (~10,000 pages)	L0R11A
	HP 981Y Extra High Yield Yellow Original PageWide Cartridge (~16,000 pages)	L0R15A
	HP 200 ADF Roller Replacement Kit (MFP 586 series only)	W5U23A
	Ink-collection unit	B5L09A
Accessories	HP PageWide Enterprise 500-sheet Paper Tray	G1W43A
	HP PageWide Enterprise Printer Stand	G1W44A
	HP PageWide Enterprise 3 x 500-sheet Paper Feeder and Stand	G1W45A
	HP 1GB DDR3 x32 144-Pin 800MHz SODIMM	E5K48
	HP Internal USB Ports	B5L28A
	HP LaserJet MFP Analog Fax Accessory 500 (MFP 586dn model only)	CC487A
	HP Foreign Interface Harness (MFP 586 series only)	B5L31A
	HP Common Card Reader	CZ208A
	HP Trusted Platform Module	F5S62A
	HP Jetdirect 2900nw Print Server	J8031A
	HP Jetdirect 3000w NFC/Wireless Accessory	J8030A
	HP LaserJet Keyboard Overlay Kit for Simplified Chinese and Traditional Chinese (586z only)	A7W12A
	HP LaserJet Keyboard Overlay Kit for Swedish (586z only)	A7W14A

HP Services

Boost performance—it's your choice. HP Care for printers provides options to help you manage printing—from Care Pack services to customisable and advisory services. With HP Managed Print Services, we oversee everything for you.

Make sure your imaging and printing investments are protected with Care Pack, part of HP Care. Pick your package of services to keep your MFP running and your business moving. Now your office can spend less time trouble-shooting and more time getting things done. For details, visit hp.com/go/cpc.[43]

Solutions

HP Web Jetadmin: hp.com/go/wja

HP Universal Print Driver: hp.com/go/upd

HP JetAdvantage Security Manager: hp.com/go/securitymanager

HP LaserJet Fonts, Barcodes, and IPDS Emulation available at hp.com/go/laserjetfonts

To learn more about available infrastructure, management, and workflow solutions, visit hp.com/go/printing solutions

Appendix A: Security features

Protect your business information

These PageWide devices offer a multitude of options to help you secure your printing and imaging environment. You can count on the deepest embedded printer security from HP,[2] as well as built-in and optional security solutions such as PIN printing. In addition, the MFP 586 series and 556xh model come standard with the HP High‑Performance Secure Hard Disk.

Protect your printer

As capabilities expand and devices become more integrated into your work, device security becomes increasingly important. These features help protect your PageWide devices:

- **Embedded protection:** Multi-level, built-in features help protect your device against complex security threats from power-up to power-down. If an anomaly is detected, the device will reboot to a known secure state.
    - **HP Sure Start:** Helps ensure that the device BIOS boots up properly every time with unaltered HP genuine code and without corruption, using the same technology as HP Elite Notebook PCs.
    - **Whitelisting:** Helps ensure that the device firmware loads properly with HP genuine code— without corruption—every time.
    - **Run-time intrusion detection:** Guards against malware, so the device continues general operation without alteration or corruption.
- **Code signing:** Firmware signed by HP ensures that the firmware was produced by HP (authenticity) and that the firmware has not been altered in any way (integrity).
- **Firewall:** The built-in device network firewall allows or denies access to specific TCP/UDP ports and services.
- **Physical port disablement:** Host USB ports, network ports, and other physical ports can be disabled to prevent unauthorised use.
- **CA & Device Identity Certificates:** These devices support identity certificates signed by a corporate certificate authority, which provides verification of identity and authenticity. The devices also support CA certificates for validation of identity certificates. Certificates can enable secure end-to-end communications with the device when used with features like IPsec, Secure-IPP, ePrint, and more. Additional certificates can be stored for validating S/MIME email servers and 802.1x authentication.
- **Authentication and authorisation:** Authentication can help your organisation manage user access, help secure access to management utilities, and avoid unwanted device configurations. Control access to the device, device settings, and functions, with options like:
    - **Multiple embedded authentication methods.** Print with a positive ID. With authentication options available from the device, you can configure Windows/Kerberos authentication, LDAP authentication, and user PIN authentication that integrates with your existing infrastructure.
    - **Role-based device authentication and authorisation with HP FutureSmart.** With HP FutureSmart, you have more control than ever before over device security and permission settings. IT administrators can decide who can interact with certain device capabilities—helping to make printing more secure, control access, and uphold site security policies.
    - **HP and third-party authentication solutions.** With optional solutions like HP Access Control, you can enable advanced authentication using proximity cards. The Hardware Integration Pocket on the control panel enables integration of select card readers.[10]
- **Physical device protection:** Both the device and the embedded HP High-Performance Secure Hard Disk (MFP 586 series and 556xh) can be physically secured from theft and tampering using a lock that requires a physical key for removal (this accessory must be purchased separately).
- **Common Criteria Certification (CCC):** CCC is a security certification recognised in 26 countries worldwide. HP certifies the security functionality of its Enterprise devices to align with the IEEE 2600 imaging and printing security standard.

Protect your data

Your device harbours sensitive information—make sure it's not at risk. HP offers security features at every stage in your work.

Help protect data at rest with the following features:

- **Storage encryption:** Defend your data. The HP High-Performance Secure Hard Disk provides full 256-bit AES hardware encryption (MFP 586 series and 556xh model).
- **Secure Erase:** The device provides built-in capabilities for securely overwriting data stored on it, allowing sensitive data to be safely removed. HP offers multiple mechanisms to erase stored data, including functionality that conforms to U.S. National Institute of Science and Technology (NIST) Special Publication 800-88.
- **Password protection:** Stored passwords are encrypted to help provide protection of this critical information.
- **Secure keys, credentials, and certificates:** For an extra level of security, the optional HP Trusted Platform Module (TPM) accessory can be added to the device to strengthen protection of encrypted credentials and data by automatically sealing device encryption keys to the TPM, and it provides secure device identity by generating and protecting certificate private keys.[28]

Help protect data in transit with these features:

- **Network protection:** Network-transmitted data can be protected with IPsec and print jobs can also be encrypted using Internet Printing Protocol (IPP) over SSL/TLS.
- **CipherSuite Encryption Strength:** Encryption strength can be selected to prevent the use of legacy or insecure protocols for data in transit.
- **FIPS-140 Mode:** Ensures device uses available FIPS-140 validated cryptographic modules for TLS encryption, SNMPv3 signing and encryption, and signed certificates.
- **Secure Encrypted Print with HP UPD 5.3.1 or later:** For added security, choose end-to-end Secure Encrypted Print. HP UPD[29] provides true symmetric AES256 print job encryption and decryption from the client to the page based on a user-defined password using FIPS 140 validated cryptographic libraries from Microsoft.
- **Secure Capture and Send:** On the MFP 586 series, scanned PDFs and emails can be encrypted using built-in FIPS 140 validated cryptographic libraries from Microsoft. HP also offers a rich portfolio of HP JetAdvantage Workflow Solutions that provide advanced capture and route capabilities with enterprise level security. See "Optional HP JetAdvantage Workflow Solutions" on page 11 for more information.
- **Management safeguards:** Device management data that travels over the network between the device and HP Web Jetadmin[9] and other management tools can also be protected using SNMPv3. HTTPS (HTTP over SSL/TLS) can be enforced so all connections to the device Embedded Web Server administration interface are securely encrypted.
- **Secure Mobile Print:** HP offers multiple options for secure mobile printing. For more information, see "Unbeatable productivity for the enterprise," on page 10.

Safeguard your physical documents

HP offers several optional solutions to help keep documents from falling into the wrong hands and help prevent fraud, such as:

- **Pull printing:** Have documents held and released only to the person who printed them. Pull printing solutions help protect sensitive data by requiring authentication at the device, and give users the flexibility of pulling the documents from any device that is enabled with the solution.
  - **HP JetAdvantage Private Print:** With HP's cloud-based solution, you get the advantages of pull printing, without the complexity.[27] It is simple to set up and does not require a server, installation, or maintenance. For more information, visit hpjetadvantage.com/ondemand.

- HP Access Control Pull Print: This optional robust server-based solution offers multiple forms of authentication including badge release, as well as enterprise level security, management, and scalability. To learn more, visit hp.com/go/hpac.

- **Embedded anti-fraud features:** This is a valuable tool in sensitive documents like prescriptions, birth certificates, or transcripts. Anti-fraud features are embedded before they are routed to the device and printed on plain paper by using the optional HP and TROY Secure Document Printing solution.

Easily manage security across the fleet

HP JetAdvantage Security Manager

Apply efficient, fleet-wide security policies to protect all your HP print devices with optional HP JetAdvantage Security Manager.[22]

- Automate many tedious tasks so you can free up time for your IT staff and protect the data and documents that matter most to your business.

- Streamline the process to securely deploy and monitor devices by applying a single security policy across the fleet.

- Easily create a print security policy for your environment by leveraging the HP Security Manager Base Policy template.

- Secure new HP devices as soon as they are added to your network with HP Instant-on Security. The software automatically configures settings to comply with your corporate security policy.

- Improve the security of your infrastructure and device communications by deploying unique identity certificates across your fleet and monitoring to ensure they remain valid with HP Security Manager's efficient fleet management of certificates. The administrative overhead to install unique identity certificates across your fleet of HP devices is now less than manually installing on a single device.

- Actively maintain and verify compliance with your defined security policies by using HP Security Manager automated monitoring and risk-based reporting.

HP JetAdvantage Security Manager

Secure your HP printing fleet with the solution Buyers Laboratory (BLI) calls trailblazing.[22]

HP security best practices

Since 2005, HP has published security best practice checklists for networked environments common to enterprises and small to medium businesses. HP recommends that customers incorporate recommended security configurations into their environments.

For more information on HP security solutions and checklists, please visit: hp.com/go/secureprinting

Create/review policy → Add devices → Assess devices → Remediate devices → Renew certificates → Review results

HP JetAdvantage Security Manager

To learn more about HP JetAdvantage Security Manager, please visit hp.com/go/securitymanager.

HP ArcSight Printer Integration

HP ArcSight provides real-time monitoring of the security posture of HP imaging and printing devices with the industry leading Security Information and Event Management (SIEM) tool.

- HP FutureSmart imaging and printing device security events are logged and easily collected.

- Events are analysed, correlated, and risks are highlighted in the ArcSight dashboard and pre-built reports.

- Devices can be easily monitored by IT security as part of the broader IT ecosystem and can enable them to take corrective actions.

Appendix B: Fleet management features

Resources

HP Web Jetadmin:

- Website: hp.com/go/wja
- Solution brief:
  http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA5-2719EEW.pdf
- Video:
  http://h20621.www2.hp.com/video-gallery/us/en/sss/35D707B5-B7B3-4A67-B4E0-2DE6C423AEA7/r/video/

HP Universal Print Driver:

- Website: hp.com/go/upd
- Solution brief:
  http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-4781EEW.pdf

Simple one-to-one device management

These PageWide devices can also be managed using the HP Embedded Web Server. Use a web browser to monitor status, configure network parameters, or access device features.

Control colour access

Use HP Web Jetadmin[9] and the HP Universal Print Driver[29] to assign colour access by user, time of day, or application, or disallow colour output completely until it's needed for special projects. People who truly need to leverage the power of colour—such as your sales team and marketing department—can, while others automatically default to black-and-white output.[44]

Efficiently manage from a central location

These PageWide devices are supported by HP Web Jetadmin,[9] an HP JetAdvantage Management Solution. This single solution allows you to efficiently manage a wide variety of networked and PC-connected devices, including printers, multifunction products, and scanners. Remotely install, configure, troubleshoot, safeguard, and manage your devices—ultimately increasing business productivity by helping you save time, control costs, protect your assets, and provide a better return on your investment. Easily integrate new HP devices without having to upgrade HP Web Jetadmin.[9] A universal plug-in lets you support most features of new devices and apply corporate policies in one step—helping to save time and simplify device management.

HP Web Jetadmin enables you to:

- Gain a clear picture of how many and what kinds of devices you have.
- Get visibility into your supplies usage, so you can make smarter purchasing decisions, reduce spending, and even track and allocate printing costs to individual departments or users.
- Simplify, and, in many cases, automate routine tasks. For example, you can apply fleet-wide policies to automatically configure new devices with the right printing and security settings when they're added to your network.
- Give your help desk staff the tools they need—such as automatic alerts—to resolve problems quickly, and often proactively, before a call is even received.
- Verify that your devices are up-to-date with the latest firmware and are properly configured (especially important for organisations that need to meet regulatory requirements).
- Use robust tracking and reporting tools to help you make better decisions about how your devices are deployed across your organisation, so you can make the most of your IT investments.
- Take advantage of additional options, like the HP Database Connectivity Module which works together with Web Jetadmin to help you establish and help achieve environmental goals.
- Get the ultimate in investment protection with HP Web Jetadmin Premium Support. This expanded service option gives your staff access to HP's dedicated software support engineers, who provide advice, usage recommendations, problem diagnosis, and more.

HP Web Jetadmin can benefit IT-managed print environments of all sizes, from large enterprises managing thousands of devices to small businesses with just a handful. For more information—or to download this free software tool—visit hp.com/go/wja.

Make it easy for all to print with one common driver

The HP Universal Print Driver enables both mobile Microsoft device users and traditional desktop users to access the full features of nearly every HP device in your managed printing environment without the need for assistance.[29]

Eliminate the clutter on your computer by replacing multiple print drivers with one versatile solution. Empower IT by dramatically reducing the number of drivers they have to manage—and by giving them the tools they need to improve efficiency. With the HP UPD, your IT team can easily adjust device settings to help reduce printing costs, improve security, and help meet environmental goals. For example, it's simple to push two-sided printing or quicker sleep times across the fleet. Plus, the valuable tools in the HP UPD Printer Administrator's Resource Kit help you save time and money by streamlining IT tasks, implementing printing policies, and monitoring usage across the enterprise. You can also use the HP UPD in tandem with HP Web Jetadmin[9] to create fleet-wide managed printer lists, reports, and more.

You can download this valuable fleet driver solution and the tools in the Printer Administrator's Resource Kit for free. For more information about how the HP Universal Print Driver can help you protect your imaging and printing investment, simplify management, and boost productivity, visit hp.com/go/upd.

Appendix C: Control panel features
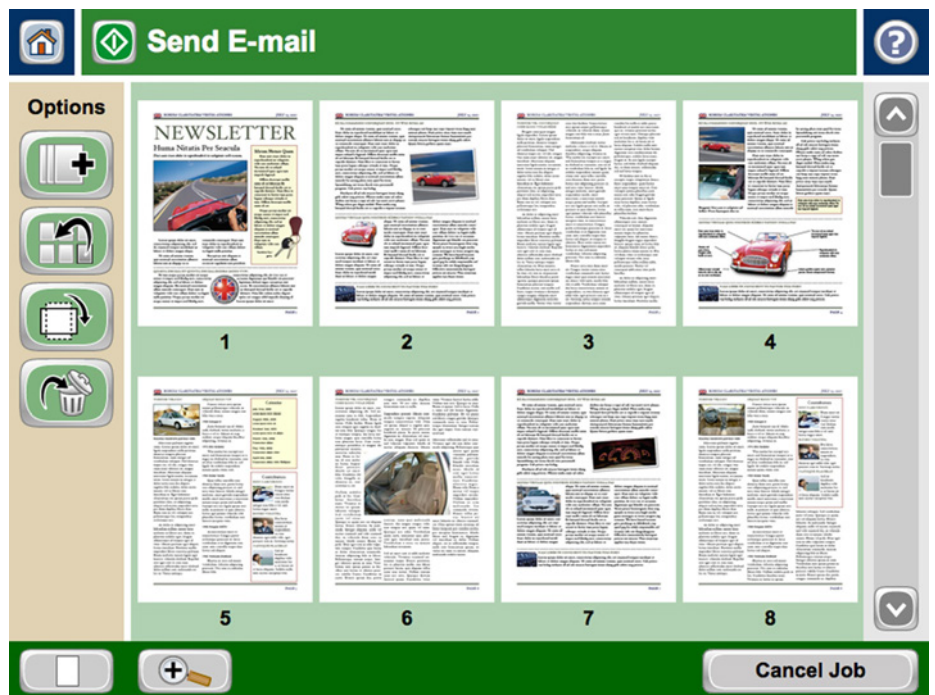
Troubleshoot with ease

These HP PageWide devices can help save your IT department valuable time when it comes to troubleshooting problems. The new Remote Control Panel allows users to operate the user interface remotely, so IT can troubleshoot problems without running to the device.[45] Users can also quickly troubleshoot technical issues with HP's innovative, cloud-based Online Help services that are relevant and up to date. Easily solve problems from your PC or mobile device. A Quick Response (QR) code on the adjustable touchscreen links to quick, accurate Online Help using smart phones and tablets.[46] You can also find these links in the HP Embedded Web Server event log.

Edit jobs right at the MFP

The control panel on the HP PageWide Enterprise Color MFP 586 series features image preview, which lets you minimise steps and reduce errors. Right from the device's 20.3 cm, full-colour touchscreen control panel, you can view and edit your scan job before you send it. You can easily get your scans to look just the way you want them. Instantly preview and modify scans before sending them into the workflow, eliminating the need to walk back and forth from a computer.

Scan multiple pages using the ADF and view them as thumbnail images, or zoom and pan for a detailed inspection. Before finalising a document, you can reorder, rotate, delete, add, or zoom in on pages. You can apply changes to a single page, or multiple pages at once. Batch separation allows users to create separate PDF or PDF/A files from scanned documents. The Flow MFP 586z model can also create PDF OCR and PDF/A OCR files.[20,45]

Use HP Quick Sets to launch automated workflows

The 586 MFP's digital sending capability allows users to route documents to a variety of destinations like email recipients, USB, network folders, fax,[26] or the cloud.[12] With the Flow 586z model, you can also send scans to Microsoft SharePoint.[12]

HP Quick Sets let you launch document workflows and get it right every time—at the touch of a button. HP Quick Sets help by automating all of the steps of a complicated workflow, all on a large, full-colour touchscreen. Users can find what they need right away.

In addition to scan destinations, you can preset other scan settings. These can include output file types such as PDF, JPEG, TIFF, MTIFF, XPS, and PDF/A formats. You can also specify security settings, such as encrypted PDFs to be delivered through encrypted and signed emails. Quick Set buttons can be easily created, labelled, and placed on the control panel home screen, so that you can quickly find the functions you need.

Quick Sets help IT by enabling them to promote or block access to certain device features. Calls to the helpdesk can be reduced when users have everything they need on the home screen and are restricted from accessing settings they shouldn't tamper with.
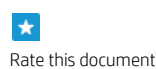
Notes

[1] Comparison of Enterprise devices based on manufacturers' published specifications of fastest available colour mode of colour business A4 MFPs €1,000-€3,000 and colour business A4 printers €500-€1,249 as of November 2015, excluding other HP PageWide products, and products with 1% or lower market share using market share as reported by IDC as of Q3 2015. HP PageWide speeds based on General Office mode and exclude first page. Learn more at hp.com/go/printerspeeds.

[2] Based on HP review in 2015 published embedded security features of competitive in-class printers. Only HP Enterprise-class devices with FutureSmart offer a combination of security features for integrity checking down to the BIOS with self-healing capabilities. A FutureSmart service pack update may be required to activate security features. Learn more at hp.com/go/printersthatprotect and hp.com/go/printersecurityclaims.

[3] Total cost of ownership Enterprise comparison based on 150,000 pages, manufacturers' published specifications for page yields and energy use, manufacturers' suggested retail prices for HP hardware and supplies, average street prices for competitive devices, cost per page based on ISO yield with continuous printing in default mode with highest-available-capacity cartridges, and long-life consumables of all colour business A4 MFPs €1,000-€3,000 and all colour business A4 printers €500-€1,249 as of November 2015, excluding products with 1% or lower market share using market share as reported by IDC as of Q3 2015. Learn more at hp.com/go/pagewideclaims and hp.com/go/learnaboutsupplies.

[4] Energy claim for enterprise devices based on TEC data reported on energystar.gov. Data normalised to determine energy efficiency of majority of in-class colour laser MFPs €1,000-€3,000 and colour laser printers €500-€1,249 as of November 2015; market share as reported by IDC as of Q3 2015. Subject to device settings. Learn more at hp.com/go/pagewideclaims.

[5] Purchase of optional paper trays required to reach maximum input capacity.

[6] Yield based on ISO 24711 cartridge yields for HP 981X series High Yield Original PageWide Cartridges compared with HP 981 series Original PageWide Cartridges and on HP 981Y Extra High Yield Original PageWide Cartridges compared with HP 981 series Original PageWide cartridges. Learn more at hp.com/go/learnaboutsupplies. Optional high-yield and extra-high-yield cartridges are not included in printer purchase and must be purchased separately.

[7] Wireless operations are compatible with 2.4 GHz operations only. App or software and HP ePrint account registration may also be required. Some features require purchase of an optional accessory. Learn more at hp.com/go/mobileprinting.

[8] Wireless networking requires purchase of the HP Jetdirect 2900nw Print Server. Wireless performance is dependent on physical environment and distance from access point, and may be limited during active VPN connections.

[9] HP Web Jetadmin is available for download at no additional charge at hp.com/go/webjetadmin.

[10] Solutions deployed through the Hardware Integration Pocket (HIP) may require additional purchase.

[11] Scan speeds measured from ADF. Actual processing speeds may vary depending on scan resolution, network conditions, computer performance, and application software.

[12] Scanning is only available on the HP PageWide Enterprise Color MFP 586 series. Requires an Internet connection to the printer. Services may require registration. App availability varies by country, language, and agreements. For details, see hpconnected.com. Scanning to SharePoint and/or the cloud requires an Internet connection to the MFP. Services may require registration. App availability varies by country, language, and agreements. For details, see hpconnected.com.

[13] Wireless direct printing is standard on the HP PageWide Enterprise Color 556xh model only. Requires purchase of optional HP Jetdirect 3000w NFC/Wireless Direct Accessory for HP PageWide Enterprise Color 556dn and MFP 586 series. Mobile device needs to be connected directly to the Wi-Fi® network of a wireless direct-capable MFP or printer prior to printing. Depending on mobile device, an app or driver may also be required. Wireless performance is dependent on physical environment and distance from the access point in the MFP or printer. For details, see hp.com/go/businessmobileprinting.

[14] Touch-to-print capability is standard on the HP PageWide Enterprise Color 556xh only. Requires purchase of optional HP Jetdirect 3000w NFC/Wireless Direct Accessory for HP PageWide Enterprise Color 556dn and MFP 586 series. Mobile device must support Near Field Communication (NFC)–enabled printing. For more information, see hp.com/go/businessmobileprinting.

[15] Measured using ISO/IEC 24734, excludes first set of test documents. For more information, see hp.com/go/printerclaims. Exact speed varies depending on the system configuration, software application, driver, and document complexity.

[16] Measured using ISO/IEC 17629. Exact speed for first page out varies depending on the system configuration, software application, driver, and document complexity. Learn more at hp.com/go/printerclaims.

[17] Average colour composite (cyan/magenta/yellow) pages and black yields based on ISO/IEC 24711 or HP testing methodology and continuous printing. Actual yields vary considerably based on content of printed pages and other factors. For details, see hp.com/go/learnaboutsupplies.

[18] Page volume based on HP 980 Black, Cyan, Magenta and Yellow Ink Cartridges. Average yield based on ISO/IEC 24711 or HP testing methodology and continuous printing. Actual yield varies considerably based on content of printed pages and other factors.

[19] Less scheduled maintenance based on 150,000 pages printed, and published comparisons of majority of in-class colour laser printers and A4 MFPs €1,000-€3,000 as of November 2015; market share as reported by IDC as of Q3 2015.

[20] Embedded OCR is only supported by the HP PageWide Enterprise Color Flow MFP 586z and is intended for occasional use. For high-volume OCR usage, consider optional server-based Digital Sending Software (DSS).

[21] Some features require additional purchase. A FutureSmart service pack update may be required to activate security features. Learn more at hp.com/go/printsecurity.

[22] Based on HP internal research on competitor offerings (Device Security Comparison January 2015), and Solutions Report on HP JetAdvantage Security Manager 2.1 from Buyers Laboratory LLC, February 2015. Requires separate purchase. For details, see hp.com/go/securitymanager.

[23] Based on internal HP testing of Original HP pigment inks on ColorLok® papers.

[24] Water, smear, fade, and highlighter resistance based on ISO 11798 and internal HP testing. For details, see hp.com/go/printpermanence.

[25] Requires purchase of server software such as HP Access Control Secure Pull Printing or HP ePrint Enterprise. Learn more at hp.com/go/businessmobileprinting.

[26] Fax capability is standard on the HP PageWide Enterprise Color MFP 586f and Flow MFP 586z models only; it is optional on the MFP 586dn model.

[27] HP JetAdvantage Private Print is available at no charge and requires that the printer or MFP be connected to the Internet with web services enabled. Not available in all countries. For more information, see hpjetadvantage.com/ondemand.

[28] Use of the optional HP Trusted Platform Module accessory may require a firmware upgrade.

[29] The HP Universal Print Driver is available for download at no additional charge at hp.com/go/upd.

[30] HP recommends that the number of printed pages per month be within the stated range for optimum device performance, based on factors including supplies replacement intervals and device life over an extended warranty period.

[31] HP Auto-Off technology capabilities subject to device and settings.

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[32] First copy out and copy speed measured using ISO/IEC 29183, excludes first set of test documents. For more information, see hp.com/go/printerclaims. Exact speed varies depending on the system configuration, software application, driver, and document complexity.

[33] Based on standard ITU-T test image #1 at standard resolution and MMR encoding, the HP fax device can transmit at 3 sec/page for V.34 and 6 sec/page for V.17.

[34] HP recommends that the number of scanned pages per month be within the stated range for optimum device performance.

[35] Duty cycle is defined as the maximum number of pages per month of imaged output. This value provides a comparison of product robustness in relation to other HP LaserJet or HP Color LaserJet devices, and enables appropriate deployment of printers and MFPs to satisfy the demands of connected individuals or groups.

[36] Printer requires ePrint account registration. App or software may be required. Wireless operations are compatible with 2.4 GHz operations only. Learn more at hp.com/go/mobileprinting.

[37] Supports the following devices running iOS 4.2 or later: iPad®, iPad® 2, iPhone® (3GS or later), iPod touch® (3rd generation or later). Works with HP's AirPrint-enabled printers and requires the printer be connected to the same network as your iOS device. Wireless performance is dependent on physical environment and distance from the access point.

[38] Mopria-certified HP printer and mobile device must be connected to the same wireless network or have a direct wireless connection. Performance is dependent on physical environment and distance from the wireless access point. Wireless operations are compatible with 2.4 GHz routers only.

[39] Not all "Compatible Operating Systems" are supported with INBOX software; Full solution software available only for Windows® 7 and newer; Legacy Windows® Operating Systems (XP, Vista®, and equivalent servers) get print and Scan drivers only; Windows® RT OS for Tablets (32- and 64-bit) uses a simplified HP print driver built into the RT OS; UNIX® modelscripts are available on HP.com (Modelscripts are printer drivers for UNIX® operating systems); Linux systems use in-OS HPLIP software.

[40] If stored below the lowest specified operating temperature, unit must slowly warm up to an approved operating temperature (HP recommends waiting 24 hours at approved operating temperature prior to using the printer).

[41] Acoustic values are subject to change. For current information, see hp.com/support.

[42] Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. This will damage the printer and void the product warranty.

[43] Service levels and response times may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit hp.com/go/cpc.

[44] Color access control capabilities vary from device to device.

[45] Availability dependent on firmware or software updates or upgrades.

[46] Online Help must be enabled on the printer or MFP. Mobile device must have an Internet connection to access online services.

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