



HP WOLF SECURITY

HP WOLF SECURITY IS HERE TO HELP

## ANOTHER LAYER OF DEFENSE WITH ORIGINAL HP PRINTER CARTRIDGES

Whether at home or in the office, your HP printer, supplies, and services work together to help protect your device and data. Security features at every step—including the cartridges you install in your HP device—result in end-to-end protection of the world's most secure printers.<sup>1</sup>

### SUPPLIES SECURITY<sup>2</sup>

#### Cartridge chip

- Functionality designed for security
- Tamper-resistant HP proprietary firmware prevents modification by third parties
- Secure smart card technology allows a secure transaction between the printer and the cartridge

#### Supply chain

- Chips manufactured in EAL5+ certified facilities
- Digital tracking through HP supply chain<sup>2</sup>
- Tamper-evident packaging

#### Dynamic supplies security

- Authentication strategies help protect against counterfeits
- Better printing results

### PRINTER SECURITY

#### Device-embedded features<sup>1</sup>

- HP Sure Start
- Whitelisting
- Run-time intrusion detection
- HP Connection Inspector

#### Self-healing

- Continuous validation of critical printer elements
- Reboots to last known-good state or security mode when attacked

#### Firmware updates

- New security threats addressed
- Bug fixes
- New features and functionalities

### SECURITY SERVICES

#### Assessment tools available from HP Channel Partners

- Quick Assess
- SMB Questionnaire

#### Services available direct from HP

- HP Secure Managed Print Services
  - Remote device management
  - Access to the latest protections
  - Advanced strategies for risk management and compliance
- HP Managed Print Cloud Services
  - Remote management of print ecosystem
- HP Print Security Advisory Services
  - Print security strategy
  - Governance and compliance

**SUPPLIES SECURITY + PRINTER SECURITY + SECURITY SERVICES =  
LAYERED, DEFENSE-IN-DEPTH PRINT SYSTEM SECURITY**

# YOUR WORKPLACE PRINTER, SUPPLIES, AND SERVICES: DESIGNED FOR SECURITY

## SUPPLIES SECURITY<sup>2</sup>

**HP chips have functionality designed for security:** Only Original HP office-class cartridges contain a chip with HP proprietary firmware that is designed from the ground up to be secure and resistant to tampering. Non-HP supplies include chips of unknown origin that may employ untrusted firmware. Given that there is a data interface from the chip to the printer, an attacker with the right skills and resources may be able to uncover and exploit a vulnerability, taking advantage of this interface to add malicious code.

**HP chips contain tamper-resistant HP firmware:** The proprietary firmware on HP office-class cartridge chips cannot be modified by third parties after production. Some non-HP cartridge and chip suppliers claim their chips can be reprogrammed, and even sell devices online that can modify data elements. Non-HP chips can use general purpose microcontrollers with firmware that can be modified or replaced.

**HP chips use secure smart card technology:** Original HP office printer cartridges introduced since 2015 use smart card technology that allows a secure transaction between the printer and cartridge. Non-HP chips may use general purpose microcontrollers, which can be vulnerable.

**Supply chain security:** HP is vigilant about recognizing and mitigating security risks in the supply chain to help protect the chip from being replaced or altered, and reduce the risk of malicious code entering the chip. HP and our partners have world-class manufacturing—carefully managing internal supply chains, working with partners who follow industry best practices on security, and partnering with security experts.

**Manufactured in secure facilities:** HP chips are certified as EAL5+ and/or manufactured in facilities where products achieved EAL5+ certification.

**Specialized construction:** Designs and glues contribute to tamper-evident packaging. The security label on the box incorporates both manual- and machine-readable elements, including an identifier for digital tracking through the HP supply chain. HP adds a zip-strip sealed inner package and, for some Asia Pacific countries and products, provides a tamper-evident label on the tear strip. To learn more, see [hp.com/go/anticounterfeit](http://hp.com/go/anticounterfeit).

**Dynamic supplies security:** HP print security uses dynamic authentication strategies to help mitigate the risks of counterfeit or non-HP cartridges being used in an HP printer. HP also provides firmware updates that can improve, enhance, or extend the printer's functionality and features, protect against security threats, and may update Dynamic Security. See [hp.com/go/learnaboutesupplies](http://hp.com/go/learnaboutesupplies).

## PRINTER SECURITY

**HP Enterprise-class printers** include HP FutureSmart firmware, which provides integrity checking down to the BIOS.

- **HP Sure Start:** Checks operating code and reboots to safety if it's compromised.
- **Whitelisting:** Validates critical firmware code as authentic to avoid exposing your network.
- **Run-time intrusion detection:** Continuously monitors memory to detect attacks before they start.
- **HP Connection Inspector:** Evaluates network connections to stop malware before it runs wild.
- **HP Security Manager<sup>3</sup>:** Allows you to establish a single security policy, quickly apply it across your HP printer fleet, and then monitor, manage, and automatically restore critical settings.

**HP Pro-class printers** include built-in protection.

- **Secure boot:** Automatically checks critical code during startup and stops if it's compromised.
- **Unique password:** Pre-set to prevent intruders from accessing printer settings.
- **Write-protected memory:** Prevents introduction of malicious code while the printer is running.
- **Automatic firmware updates:** Helps ensure your devices are running without known vulnerabilities.
- **Firmware code-signing validation:** Validates memory code, then stops and notifies you if it's not authentic.

For more information, see the [Compatibility Matrix](#).

## SECURITY SERVICES

**Assessment tools available from HP Channel Partners:**

**Quick Assess:** Scans up to 50 HP network printers/MFPs against 15 common security settings, then reports on the level of risk within your print environment.

**SMB Questionnaire:** Assesses the organization's overall print security, from security ecosystem to purchasing requirements and policy management.

1. HP's most advanced embedded security features are available on HP Enterprise and HP Managed devices with HP FutureSmart firmware 4.5 or above. Claim based on HP review of 2021 published features of competitive in-class printers. Only HP offers a combination of security features to automatically detect, stop, and recover from attacks with a self-healing reboot, in alignment with NIST SP 800-193 guidelines for device cyber resiliency. For a list of compatible products, visit [hp.com/go/PrintersThatProtect](http://hp.com/go/PrintersThatProtect). For more information, visit [hp.com/go/printersecurityclaims](http://hp.com/go/printersecurityclaims). 2. HP office-class printing systems are select Enterprise and Managed devices with FutureSmart firmware 4.5 and up, Pro devices, LaserJet models 200 and up, with respective Original HP Toner, PageWide and Ink Cartridges. Does not include HP integrated printhead cartridges. Digital supply-chain tracking, hardware and packaging security features vary locally by SKU. See [hp.com/go/SuppliesThatProtect](http://hp.com/go/SuppliesThatProtect) and [hp.com/go/SuppliesSecurityClaims](http://hp.com/go/SuppliesSecurityClaims). 3. HP Security Manager must be purchased separately. To learn more, please visit [hp.com/go/securitymanager](http://hp.com/go/securitymanager).

