

DEFEND YOUR NETWORK

WITH THE WORLD'S MOST SECURE LARGE FORMAT PRINTERS¹

Firewalls alone can't withstand attacks from sophisticated hackers. You need the world's most secure Large Format Printers¹ from HP to help protect your devices, data and documents.

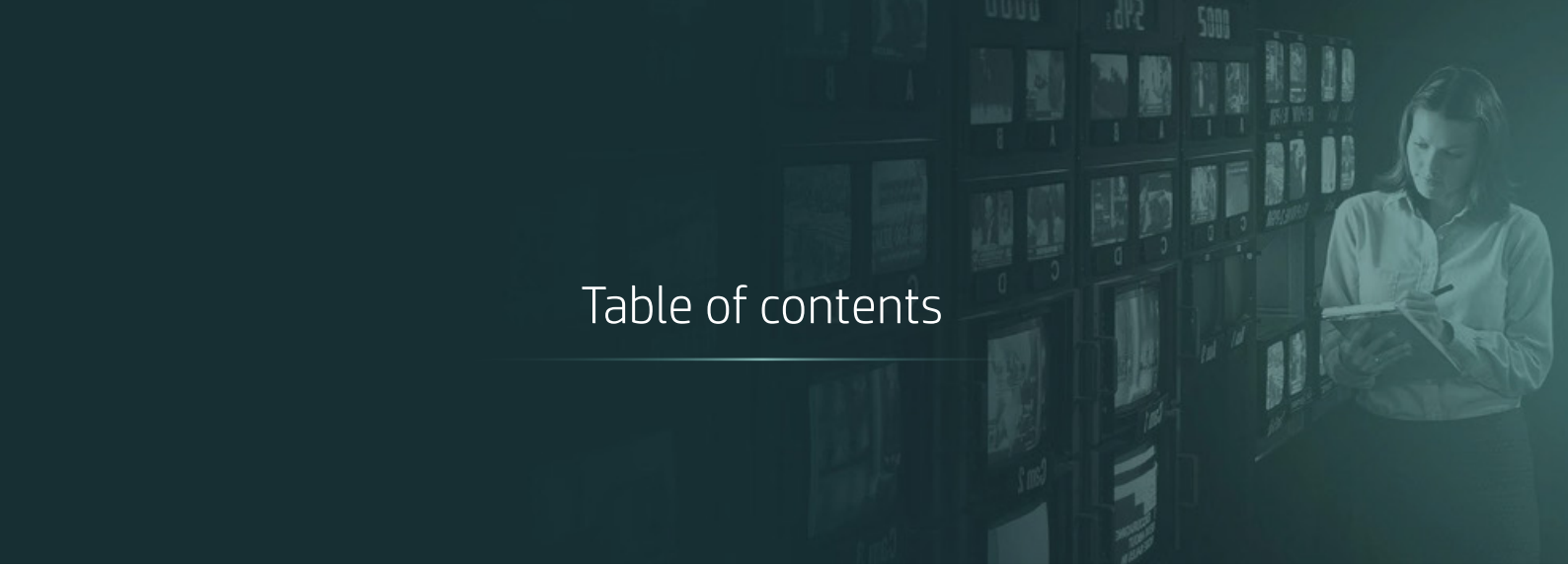
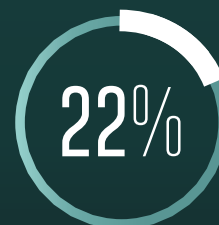


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Only 22% of companies monitor printers for threats²

Printer security threats

“TESTAMENT TO ITS LONG-TERM INVESTMENT IN PRINT SECURITY, HP HAS THE BROADEST AND DEEPEST PORTFOLIO OF SECURITY SOLUTIONS AND SERVICES IN THE MARKET.”

– QUOCIRCA, JAN 2017³

Recognize hidden risks

Although many IT departments rigorously apply security measures to individual computers, printing and imaging devices are often overlooked and left exposed. When there are unsecured devices present, the entire network can be exposed to a cybersecurity attack.

Understand potential costs

If private information is jeopardized due to unsecured printing and imaging, the ramifications could include identity theft, stolen competitive information, a tarnished brand image and reputation, and litigation. Plus, regulatory and legal noncompliance can result in heavy fines.

HP can help

Defend your network with the world’s most secure large-format printers.¹ HP can help you automate device, data, and document protection with a broad portfolio of solutions.

Defend your devices, data, and documents

Critical gaps can occur at multiple points within your imaging and printing environment. Once you understand these vulnerabilities, you can more easily reduce the risks.



IMAGING AND PRINTING VULNERABILITY POINTS



Protect your device



Control panel

Users can exploit device settings and functions



Default password

Printers can come with simple default passwords that can be easily compromised



BIOS and firmware

Compromised firmware can open a device and network to attack



Protect your data



Storage media

Printers store sensitive information that can be at risk



Capture

Unsecured MFPs can be used to send scans anywhere



Output tray

Abandoned documents can fall into the wrong hands



Protect your environment



Management

Undetected security gaps put data at risk



Network

Jobs can be intercepted as they travel to/from a device



Ports and protocols

Unsecured ports (USB or network) or protocols (FTP or Telnet) put devices at risk

78%

of companies don't monitor their
printers for security threats²



Protect your device

HP Secure Boot

The BIOS is a set of instructions used to load critical hardware components and initiate firmware during startup. Thanks to HP Secure Boot, the integrity of the code is validated at every boot cycle—helping to safeguard your device from attack.

Whitelisting

Whitelisting automatically checks the firmware during startup to determine if it is authentic and digitally signed by HP. If an anomaly is detected, the device shuts down and notifies IT.

HP Connection Inspector

The HP Connection Inspector inspects outbound network connections typically abused by malware, determines what is normal and stops suspicious activity. If the printer is compromised, it will automatically trigger a system restart.

HP Trusted Module Platform (TPM)

The HP Trusted Platform Module (TPM) strengthens protection of encrypted credentials and data stored on your printer or MFP.

Unique Admin Password

All printers have a unique admin password by default, so your printer is always password protected even without setup.

LDAP/Kerberos user authentication

These protocols allow to authenticate the printer user through the company directory to ensure that the user only accesses authorized options and information.

Role Based Access Control

Role Based Access Control allows the administrator to restrict user access to sensitive areas and settings of the printer by configuring different roles and assigning them to such users.

Security event logging

Provides full visibility to quickly detect malicious threats. The security log records each event as defined by the audit policies set on each object.



of organizations reported at least one type of security threat/breach, either external or internal, within the last 18 months²

At rest

Self-encrypted hard drive

Protects sensitive business information stored on the hard drive with built-in encryption.

Secure File Erase

Ensures that no data is left behind in the printer after your files are deleted from the hard disk.

Secure Disk Erase

Erases all information from the printer's hard disk, making it impossible to recover sensitive data.



Protect your data

In transit

Encrypted communications

Standard encryption protocols 802.1x or IPSec use encrypted network standards to protect data traveling over the network.



of organizations expect
an increase in security
threat/breaches over
the next 3 years²



Protect your
documents

Pull printing

Celiveo Enterprise is a fully integrated secure printing and tracking solution.⁴ This access control-based function has end-to-end tracking and reporting to protect sensitive information and media, and reduce unclaimed print jobs. It helps boost productivity and keep abandoned documents from falling into the wrong hands. HP large-format printers are also compatible with other third-party pull printing solutions.

Encrypted PIN Printing

When users send confidential print jobs, they can assign a PIN to the document on the printer driver. The document will then be held in the printer until the user enters the PIN at the device. This way the user can be sure their confidential document won't be left unattended. With encrypted PIN printing, document data is encrypted when the document is sent to the printer to protect document confidentiality through the network.

Security monitoring and management solutions can help you identify vulnerabilities and establish a unified, policy-based approach to protect data, reduce risk, and maintain compliance. Prevent protection gaps and help avoid costly fines.²



Protect your
printing environment

Update devices with the latest firmware/OS

HP JetAdvantage Security Manager helps you reduce cost and resources to establish a fleet-wide security policy, automate device settings remediation, and install and renew unique certificates.⁵ The Instant-on Security feature included with HP JetAdvantage Security Manager automatically configures new devices when added to the network or after a reboot.

Compliance audit reporting of print fleet security

Use HP JetAdvantage Security Manager to create proof-of-compliance reports that demonstrate the application of security policies to printers and the securing of customer data.

Compliance infringement can hurt your business

Unprotected or under-protected endpoints create more opportunity for cybercrime. To help counter the growing threat, government bodies across the globe are implementing strict security regulations that require organizations to better protect customer information. It's crucial to deploy devices and solutions—like HP DesignJet printers and HP JetAdvantage Security Manager—that can help you meet compliance requirements and protect your business information from security threats.

How does self healing work?

HP Security Manager runs a four-steps security check cycle to keep your device secure:



1. Check operating code (BIOS)

HP Secure Boot

Prevents the execution of malicious code during boot-up by allowing only HP-signed, genuine code to be loaded.



2. Check firmware

Whitelisting

Allows only authentic firmware digitally signed by HP to be loaded.



3. Check printer settings

HP JetAdvantage Security Manager

After a reboot, inspects and fixes any affected device security settings.



4. Continuous monitoring

HP Connection Inspector

Continuously monitors outbound network connections to prevent malware intrusion and automatically stops malicious activity.



Printers
that protect,
detect, and
recover

HP Large Format Printers

Designed to help reduce risk, improve compliance, and protect your network end-to-end, HP Large Format printers provide embedded features and add-on solutions that can help you defend your printers and network.



HP DesignJet XL 3600 MFP series

The most immediate, robust,⁶
MFP for demanding environments.

For more information, please visit:

[HP DesignJet XL 3600 MFP series](#)



HP DesignJet T1600 Printer series

Meet deadlines with the fastest print
speed, and with a radically simple
printing experience.

For more information, please visit:

[HP DesignJet T1600 Printer series](#)



HP PageWide XL Printer series

The fastest large-format printing.
High quality printing quality made
simple and secure.

For more information, please visit:

[HP PageWide XL Printer Series](#)



HP DesignJet T2600 MFP series

A seamless experience for
unprecedented collaboration,
with the best network protection.¹

For more information, please visit:

[HP DesignJet T2600 MFP series](#)



HP DesignJet T1700 Printer series

Empowering HP DesignJet printer
for CAD/GIS workgroups.

For more information, please visit:

[HP DesignJet T1700 Printer series](#)



HP DesignJet Z6 PostScript® Printer series

High-definition prints, fast.
More quality with fewer inks.

For more information, please visit:

[HP DesignJet Z6 PostScript® Printer Series](#)



HP DesignJet Z9+ PostScript® Printer series

Professional photo prints fast, simple.
More quality with fewer inks.

For more information, please visit:

[HP DesignJet Z9+ PostScript® Printer Series](#)

HP printer portfolio

HP DesignJet T730
Printer

HP DesignJet
T830 MFP series

HP DesignJet T1600
Printer series

HP DesignJet T1700
Printer Series

DEVICE

HP Secure Boot			●	●
UEFI Secure Boot			●	●
Connection inspector				
Whitelisting			●	
Unique admin password				
TPM			●	
LDAP/Kerberos User Authentication			●	
Role Based Access Control			●	●
Front Panel Access Lock			●	●
Security event logging			●	
SNMP v3 compatibility	●	●	●	●
Self-encrypted HDD	n/a	n/a	●	●
No HDD	●	●		
IPSec compatibility			●	●
TLS/SSL	●	●	●	●
Secure File Erase			●	●
Secure Disk Erase			●	●
802.1x compatibility	●	●	●	●
NTLMv2	n/a	●	●	●
Encrypted PIN printing			●	
IPv4 & IPv6 compatibility	●	●	●	●
CA/JD certificates	●	●	●	●
Disable interfaces	●	●	●	●

DATA

Secure File Erase			●	●
Secure Disk Erase			●	●
802.1x compatibility	●	●	●	●
NTLMv2	n/a	●	●	●
Encrypted PIN printing			●	
IPv4 & IPv6 compatibility	●	●	●	●
CA/JD certificates	●	●	●	●
Disable interfaces	●	●	●	●
PIN printing			●	●

DOCUMENT

Integrated Celiveo Enterprise Solution			●	●
Integrated API Netgard® MFD			●	●

FLEET SECURITY MANAGEMENT

HP Web JetAdmin ⁷	●	●	●	●
HP JetAdvantage Security Manager	●	●	●	●
SIEM integration			●	

Competitive Comparison

HP
HP DesignJet T1700
Printer / Z9+ and Z6
PostScript® Printer
series

HP
HP DesignJet XL 3600
MFP / HP DesignJet
T2600 MFP and T1600
Printer Series

HP
HP PageWide
XL Printers

CANON
CW
3600/3800
/9000

CANON
imagePROGRAF
TX-series
TM-series

DEVICE

Secure Boot	●	●	●	●	
HP Connection Inspector			●		
Whitelisting	●	●	●	●	
Unique admin password			●		
TPM ^(a)		●	●	●	
LDAP/Kerberos User Authentication ^(a)		●	●	●	
Role Based Access Control	●	●	●	●	●*
Front Panel Access Lock	●	●	●	●	●
Security event logging		●	●	●	
Disable network ports and protocols ^(a)	●	●	●	●	●
SNMP v3	●	●	●	● ^(g)	●

DATA

Self-encrypted HDD ^(a)	●	●	●	●	● ^(c)
IPSec	●	●	●	●	●
TLS/SSL	●	●	● ^(h)	●	●
Secure File Erase	●	●	●	● ⁽ⁱ⁾	●
Secure Disk Erase	●	●	●	●	●
802.1x compatibility ^(a)	●	●	●	●	●
NTLM v2 ^(a)	n/a	●	●	●	●
Encrypted PIN printing		●	●		

DOCUMENT

Integrated pull-printing solution ^(f)	●	●	●	● ^(j)	
PIN printing ^(a)	●	●	●		

FLEET SECURITY MANAGEMENT

Security policy based fleet management ^(a)	●	●	●		
SIEM integration		●	●	●	



DEFEND YOUR NETWORK WITH THE WORLD'S MOST SECURE LAR- GE FORMAT PRINTERS¹





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1. Applicable to the HP DesignJet T1700 Printer series, HP DesignJet Z9+ PostScript® Printer series, and HP DesignJet Z6 PostScript® Printer series, HP DesignJet XL 3600 Multifunction Printer series, HP DesignJet T2600 Multifunction Printer series, and HP DesignJet T1600 Printer series. Advanced embedded security features are based on HP review of 2019 published embedded security features of competitive printers, as of February 2019.
2. Spiceworks survey of 501 IT decision-makers in North America, EMEA, and APAC, on behalf of HP, June 2018.
3. Quocirca, "Print security: An imperative in the IoT era," [quocirca.com/content/print-security-imperative-iot-era](https://www.quocirca.com/content/print-security-imperative-iot-era), January 2017.
4. The HP DesignJet T1700 Printer series, Z9+ and Z6 PostScript® Printer series, and, HP PageWide XL printers include the fully integrated Celiveo Enterprise solution.
5. HP JetAdvantage Security Manager must be purchased separately. To learn more, please visit hp.com/go/securitymanager.
6. Based on comparable printers using LED technology and capable of printing 4-6 D/A1 pages per minute and which represent more than 70% of the share of low-volume LED printers in the US and Europe according to IDC as of November, 2018. Fastest first page out and up to 10 times less energy consumption based on internal HP testing for specific use scenarios. Operational costs based on low-volume LED technology under \$17,000 USD in the market as of November, 2018. Operational costs consist of supplies and service costs. For testing criteria, see hp.com/go/designjetxlclaims.
7. HP Web Jetadmin is available for download at no additional charge at hp.com/go/webjetadmin.

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