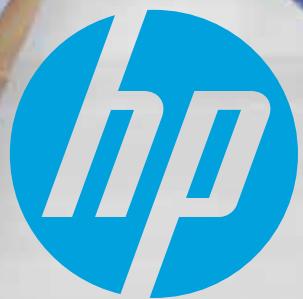


# Secure your data

How HP Designjet printers can protect your business



More than ever, it's critical for institutions to protect their most important, confidential, and sensitive data on their networks. That includes the information on their printers, which can store an enormous amount of data. In fact, for most companies, it's a luxury to have a large format printer with security features that can make the IT administrator's life easy.

HP Designjet printers are designed with these needs in mind, featuring multiple security measures designed to keep the data safe from harm and protected from incompatibility, tampering, theft, or disaster.

This document outlines the variety of features available on select HP Designjet printers designed to protect your data, and your business.

## Security

The security features described in this document make HP Designjet printers particularly well suited to deployment in environments where security features for network management, data transfer, controlled printer access, and data erasure are extremely important.

### Secure File Erase

Secure File Erase is a feature that manages how files are deleted from the printer's hard disk, which can help ensure that no data is left behind in the printer. There are three security modes to the Secure File Erase feature, with the most secure meeting the United States Department of Defence (US DOD) 5220-22.M requirements for clearing and sanitization of disk media. When the Secure File Erase feature is enabled, all temporary files that might contain sensitive data are erased and no temporary files remain after a job has completed (scan, copy, or print). Secure File Erase is performed whenever the system is finished with a file and calls the delete procedure. If the Secure File Erase mode is never set to a secure mode, the system still deletes these files on a continuous basis, using an insecure manner. The printer performance can be affected while increasing the Secure File Erase level.

### Secure Disk Erase

Secure Disk Erase allows the erasing of all information from the hard disk drive inside the printer in a secure manner, making it impossible to recover the information. It is possible to trigger a Secure Disk Erase using the US DOD 5220-22.M specification to erase all data from the hard disk partition that contains the user data.

### Control panel access lock

The control panel access is a feature intended for IT administrators, which allows them to lock the printer's control panel using either HP Web Jetadmin software, or the printer's HP Embedded Web Server. This feature prevents unauthorized users from accessing the control panel and changing the printer's settings. There are four levels of access that can be set:

- Minimum Lock—This option denies access to the Resets options, Enable/Disable connectivity options, and the Service Menu.
- Moderate Lock—In addition to the Minimum Lock, this option also denies access to all printer settings, the job queue, information and service prints, and the printer log.
- Intermediate Lock—In addition to the Moderate Lock, this option also denies access to the paper and ink supplies handling options, maintenance options, and demo prints. Only viewing of printer and supplies information is allowed.
- Maximum Lock—This option denies access to all options in the control panel.

HP Designjet printers are particularly well suited to deployment in environments where security features for network management, data transfer, controlled printer access, and data erasure are extremely important.

### **Disable connectivity interfaces**

HP Designjet printers are designed so that some ports can be disabled to prevent unauthorized printing and possible data theft. For example, disabling the USB printing port prevents people from connecting a laptop directly into the printer and printing through the USB. If an optional HP Jetdirect card has been installed to add extra security features, the onboard Ethernet card can be disabled.

### **High-performance Self-encrypting Drive (SED)**

The Self-encrypting Drive (SED) is designed to ensure your print data is automatically encrypted every time data is sent to the printer and written to the drive. It provides an additional layer of security for all of your printed files and reduces the risk of tampering or unauthorized access to the data. With an SED installed on select HP Designjet printers, workgroups can safely store and print their most sensitive data over a network with security features.

The Advanced Encryption Standard (AES) reduces the risk of stolen data. AES technology provides trust that the printer's hard drive data is not readable if the hard disk is removed from the device. The SED supports AES256 encryption, following the FIPS 140-2 Level 2 (tamper evident sticker compliant) requirement.

There's no need to activate any settings or perform any action to encrypt the content. The SED is also protected with an ATA password, unique for each printer and changeable when required.

### **Disabling unused protocols**

In some cases, you may want to disable all protocols that you do not plan to use to access your printer. For example, you might prevent users from sending files through the FTP or connecting through telnet to manage the printer network settings. You can disable unused protocols through the Mgmt. protocols option in the HP Embedded Web Server or Network Enable features in HP Web Jetadmin.

### **Network management security features through SNMP v3**

HP Designjet printers can be managed through SNMP v1 and v2. In addition, most HP Designjet printers can be managed via SNMP v3 which provides the following additional benefits:

- Integrity—protects data flowing from side to side from being modified by a third party.
- Authentication—verifies the data source.
- Encryption—protects data from being accessed by a third party.
- Access control—restricts Managed Device data that can be accessed by each Network Management System.

### **Internet Protocol Security (IPsec) compatibility**

IPsec is a standard that provides security at the IP (network) layer of TCP/IP-based communication. IPsec allows for private and secure communications over the public Internet. HP Designjet printers are compatible with IPsec and provide the following benefits:

- Helps ensure data confidentiality by making it difficult for anyone but the receiver to understand the data being communicated.
- Allows each party in a communication session to reliably authenticate each other.
- Helps ensure that the data is not altered during transmission.
- Protects against unauthorized resending of data.

### **IPv6 and IPv4 compatibility**

Easily transition from IPv4 to IPv6 with HP Designjet printers. While IPv4 was a solid and long-lasting TCP/IP protocol version, the IPv6 protocol takes you to the next generation, solving the IP address limitation problem for an ever-increasing number of network devices.

**To learn more about HP Designjet printers and security features, visit**

[hp.com/go/DesignjetT520](http://hp.com/go/DesignjetT520)

[hp.com/go/DesignjetT790](http://hp.com/go/DesignjetT790)

[hp.com/go/DesignjetT795](http://hp.com/go/DesignjetT795)

[hp.com/go/DesignjetT920](http://hp.com/go/DesignjetT920)

[hp.com/go/DesignjetT1300](http://hp.com/go/DesignjetT1300)

[hp.com/go/DesignjetT1500](http://hp.com/go/DesignjetT1500)

[hp.com/go/DesignjetT2500](http://hp.com/go/DesignjetT2500)

[hp.com/go/DesignjetT3500](http://hp.com/go/DesignjetT3500)

[hp.com/go/DesignjetT7200](http://hp.com/go/DesignjetT7200)

[hp.com/go/DesignjetZ5400](http://hp.com/go/DesignjetZ5400)

[hp.com/go/DesignjetZ6200](http://hp.com/go/DesignjetZ6200)

[hp.com/go/DesignjetZ6600](http://hp.com/go/DesignjetZ6600)

[hp.com/go/DesignjetZ6800](http://hp.com/go/DesignjetZ6800)



**802.1x compatibility**

To provide additional security, a select number of HP Designjet printers are 802.1x compatible out of the box (for some HP Designjet printers, this feature is available using the optional HP Jetdirect card). The 802.1x standard provides access control to the Ethernet network, and network devices that are unable to authenticate to the 802.1x authorization server are denied all network access. 802.1x can prevent unauthorized users from attaching devices to the network and can help ensure that only IT-deployed and trusted devices, such as those with virus protection software, are allowed access.

**CA/JD certificates**

You can request, install, and manage digital certificates on the HP Jetdirect print server included with most HP Designjet printers (for some HP Designjet printers, the HP Jetdirect card is optional and is not included). Certificates are used to identify the HP Jetdirect print server both as a valid Web server for network clients and as a valid client requesting access on a network with security features. By default, the HP Jetdirect print server contains a self-signed pre-installed certificate to provide optimal security from set up. It is possible to issue new certificates using this card.

**Personal identification number (PIN) printing**

Does your business need to print confidential or sensitive documents? Often, users need to print private documents to shared printers across a company's network. The new HP Designjet T3500 Production eMFP is the only HP large format printer with the capability to hold print jobs until a user enters a PIN to release the job to help ensure that confidential documents do not print until the user is physically present at the printer.

**Common Access Card (CAC) security via Netgard™ MFD**

Netgard™ MFD is a drop-in, in-line, multi-factor, user authentication solution for networked, special-purpose devices such as multi-function printers, scanners, and copiers. Netgard™ protects a network by requiring users to authenticate themselves with a smartcard (CAC/PIV—personal identity verification) and personal identification number (PIN), thereby preventing unauthorized users from accessing privileged materials or distributing unauthorized material. Without a card and PIN, Netgard™ does not permit the user to print, scan, or send from the multi-function device to network resources. This solution is an optional third-party accessory that integrates with the HP Designjet T2500 eMultifunction Printer series and the HP Designjet T3500 Production eMFP.

**Learn more at**  
[apitech.com](http://apitech.com)

**HP Designjet printers—security features**

	HP Designjet T520 ePrinter series	HP Designjet T790/T795 ePrinters / T1300 PostScript® ePrinter	HP Designjet T920/T1500 ePrinter series/ T2500 eMFP series	HP Designjet T3500 Production eMFP	HP Designjet T7100 Printer	HP Designjet Z5400 PostScript® ePrinter	HP Designjet Z6200 Photo Production Printer	HP Designjet Z6600 Production Printer	HP Designjet Z6800 Photo Production Printer
<b>Self-encrypting Disk (SED)</b>	N/A	N/A	CR355B / CR357B	●	N/A	N/A	N/A	N/A	N/A
<b>Secure Disk Erase (SDE)</b>	N/A	●	●	●	●	●	●	●	●
<b>Secure File Erase (SFE)</b>	N/A	●	●	●	●	●	●	●	●
<b>Control panel access lock</b>	N/A	●	●	●	●	●	●	●	●
<b>Disable protocols</b>	●	●	●	●	●	●	●	●	●
<b>Disable connectivity interfaces</b>	●	●	●	●	●	●	●	●	●
<b>IPv4 &amp; IPv6 compatibility</b>	●	●	●	●	●	●	●	●	●
<b>IPsec compatibility</b>	N/A	●	●	●	●	●	●	●	●
<b>SNMP v3 compatibility</b>	N/A	●	●	●	●	●	●	●	●
<b>CA/JD certificates</b>	N/A	HP Jetdirect 640n required	●	●	HP Jetdirect 640n required	HP Jetdirect 640n required	HP Jetdirect 640n required	HP Jetdirect 640n required	HP Jetdirect 640n required
<b>802.1x compatibility</b>	N/A	HP Jetdirect 640n required	●	●	HP Jetdirect 640n required	HP Jetdirect 640n required	HP Jetdirect 640n required	HP Jetdirect 640n required	HP Jetdirect 640n required
<b>Personal identification number (PIN) printing</b>	N/A	N/A	N/A	●	N/A	N/A	N/A	N/A	N/A
<b>Common Access Card (CAC) security via Netgard™ accessory</b>	N/A	N/A	T2500 eMFP series only	●	N/A	N/A	N/A	N/A	N/A
<b>HP Embedded Web Server</b>	●	●	●	●	●	●	●	●	●
<b>HP Web Jetadmin compatibility</b>	●	●	●	●	●	●	●	●	●
<b>Accounting solutions</b>	N/A	●	●	●	●	●	●	●	●
<b>HP Designjet Universal Print Driver (UPD)</b>	●	●	●	●	●	●	●	●	●



## IT friendly

HP Designjet printers are also designed for manageability in IT environments, with some additional solutions.

### **HP Web Jetadmin access**

HP Web Jetadmin is the user interface that manages the Secure File Erase and Secure Disk Erase functionality. This is the same functionality that is used in the HP Web Jetadmin device plug-ins for HP LaserJet printers, allowing you to set the same global options across your fleet of HP LaserJet and HP Designjet printers.

**To learn more visit**  
[hp.com/go/webjetadmin](http://hp.com/go/webjetadmin)

### **HP Embedded Web Server**

The HP Embedded Web Server is a powerful remote access tool that can be used to manage the printer, check print jobs, and determine usage costs and is included with HP Designjet printers. The level of detail and functionality of the HP Embedded Web Server varies between printer models.

Accessing the HP Embedded Web Server of an HP Designjet printer simply requires a TCP/IP connection and a standard Web browser. Some of the powerful features offered by the HP Embedded Web Server include:

- Checking the status of the printer
- Checking the status of the printing supplies
- Updating the firmware
- Checking supply usage for each print job
- Remotely managing the print queue
- Managing the network settings

### **HP accounting solutions**

Some HP Designjet printers include advanced accounting features, enabling users to monitor usage, including statistics such as the amount of paper and ink used per job and per user. The user can retrieve this information directly from the printer, or instruct the printer to send it automatically by e-mail at regular intervals.

### **HP Certified Accounting Solutions from third parties**

To track the usage of a wider variety of HP Designjet printers, you can use HP Certified third-party solutions that offer accounting or cost tracking. The HP Certification program includes a comprehensive set of compatibility criteria with certified software products taking advantage of the unique capabilities of HP Designjet printers.

The third-party Solutions that have been awarded HP Certified Accounting Solution status have demonstrated compatibility with the HP Designjet Accounting Software Development Kit (SDK) and use the advanced accounting features of the supported HP Designjet printers. The following HP Certified Accounting Solutions are currently available:

- Sepialine Argos ([sepialine.com](http://sepialine.com))
- Capella MegaTrack ([capellatech.com](http://capellatech.com))
- Technesis ([technesis.com](http://technesis.com))
- ARC Abacus ([e-arc.com/technology-solutions/abacus](http://e-arc.com/technology-solutions/abacus))
- Cloud4MPS ([cloud4mps.com](http://cloud4mps.com))
- Kothari Kojac ([kothariinfotech.com/KoJac.htm](http://kothariinfotech.com/KoJac.htm))
- Printerpoint ([printerpoint.com](http://printerpoint.com))

### **Deployability**

HP Designjet printers can be deployed to remote locations to support customer missions including the military, firefighting, law enforcement, and disaster recovery. HP Designjet printers have been fielded with the US military to print GIS and AEC data from the back of vehicles in some of the world's most inhospitable environments. They have been used by a US federal government agency to print GIS data to support firefighters in the field. And they were used to support disaster recovery efforts after hurricanes Katrina and Sandy by printing GIS and AEC data.



The closed-ink system found on all of the HP Designjet printers, as well as the solid construction and engineering, allow these devices to withstand demanding field conditions. HP works with case manufacturers, such as Hardigg Pelican, to produce deployable cases that can provide extra protection for your HP Designjet printer and allow it to be more easily transported and set up.

For more information on these deployable case solutions, contact Deployable Systems at [dscases.com](http://dscases.com)

### **HP Designjet Universal Print Driver (UPD)**

The HP Designjet Universal Print Driver (UPD) provides users and administrators with a standardized, one-driver solution for their printing needs. Instead of installing and managing individual drivers for each printer model, administrators can install the HP Designjet UPD for use with a variety of HP large format printers. With only one package to manage, testing and internal certification of print drivers is simplified by the use of the HP Designjet UPD packages. Time spent on installation, both on servers and workstations, is greatly reduced, and hard drive space formerly occupied by many product-specific drivers is now diminished significantly.

**To learn more visit**  
**[hp.com/go/designjetupd](http://hp.com/go/designjetupd)**



## Protect your data with HP Designjet printers

While high print quality, performance, and reliability have always been key design attributes of HP Designjet printers, data protection is equally important. From advanced security measures to compliance and certification assurance, HP Designjet printers can provide IT managers at any institution with the peace of mind that all their valuable and sensitive data is properly protected.

**For more information, contact your HP representative today or visit  
[hp.com/go/designjet](http://hp.com/go/designjet)**

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