

Product Security

Data Protection: Image Overwrite, Encryption and Disk Removal

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Introduction

General Purpose and Audience

This document is intended to provide users of Xerox products accurate and actionable information to help them evaluate and manage risks associated with image data stored to disk drives or other non-volatile memory.

Summary Information

Xerox copiers, printers and multifunction products are devices that contain a computer and the necessary software that allows them to accomplish the many productivity-enhancing tasks that have become so valuable to today's workplaces. These internal computers may have a disk drive or other non-volatile storage where job image data may be temporarily written during processing. Additionally, jobs may be stored for later reprint on some models. From the introduction of the first digital products, Xerox has recognized the risk of retained data being inappropriately recovered from non-volatile storage and built features and countermeasures into our devices to help customers safeguard their data.

Up to date product security information is maintained at www.xerox.com/security Information including security bulletins, patch information, US-CERT advisory updates, white papers, and videos on what customers can do to mitigate security risks can be found. Xerox provides detailed information about internal product workflows and features such as image overwrite in Information Assurance Documents which are available for many products at the website or as requested for older products.

Security Features

Jobs may be written to nonvolatile memory (e.g. to a hard drive) during processing. Generally, when a job finishes, this data is deleted, but may still be recoverable using forensic tools. Image overwrite is effective at eliminating this job data from the hard drive once the data is no longer needed. Xerox also scrambles the data with the user data encryption feature. This further protects data at rest from unauthorized access. Xerox recommends that the following features be enabled.

Fortunately, countermeasures are built into products to reduce this risk.

- **Immediate Job Overwrite or Immediate Image Overwrite** is a feature that deletes and overwrites (with a specific data pattern) disk sectors that temporarily contained electronic image data. Products that use hard disk drives to store job data initiate this process at the completion of each job. This conforms to NIST Special Publication 800-88 Rev1. This should be enabled (and is by default on many products).
- **On Demand Image Overwrite** is a manually initiated (can also be scheduled) feature that deletes and overwrites (with a specific data pattern) every sector of any partitions of the hard drive that may contain customer job data. The device will be offline for a period of 20 minutes to one hour while this completes. This conforms to NIST Special Publication 800-88 Rev1. ODIO is effective as an extra protection step when the utmost in security is needed.
- **Disk or User Data Encryption** is a feature which encrypts all partitions of the hard drive that may contain customer job data with AES encryption. This should be enabled (and is by default on many products). Encryption can be used in combination with either overwrite feature.

Hard Disk Drive Retention Offering

If the security features built into Xerox products do not meet your security requirements, Xerox offers another alternative.

Hard Drive Retention Offering is a service that can be requested by a customer who wants to retain a hard drive for security reasons. A Xerox technician will remove the hard drive and leave it with the customer. Contact Xerox Customer Support for information on fees and availability in your geography. There is a White Paper describing this program (aligned by sales channel) on the Xerox Security website at www.xerox.com/security under Security Resources in the Articles and White Papers section. This offering does not apply to any form of solid-state nonvolatile memory.

Things to Remember

- Not all products have hard disk drives.
- Some products have hard disk drives, but do not use the hard disk drive to save document images.
- If a Xerox product is powered off before an Overwrite operation completes, there may be remnants of data left on the drive. A persistent message will appear on the device indicating the incomplete overwrite operation. In this event, it is recommended that an On Demand Image Overwrite be performed.
- Image overwrite features are available for hard drive equipped devices only. Currently it is not possible to overwrite images on solid-state nonvolatile memory.
- **NOTE:** Xerox strongly recommends the default Administrator password be changed on all devices to prevent unauthorized access to configuration settings.

Xerox does not offer sanitization or cleansing services for returned disk drives.

Product Details

The tables below will help you to identify Xerox products containing disks or other nonvolatile storage and whether those products include image overwrite and disk encryption features. Some products offer these features as an optional accessory to the product. Instructions on how to install or enable image overwrite or disk encryption can be found in the product documentation which is available online at www.xerox.com in the 'Support and Drivers' link. Xerox offers technical and professional services to assist you.

HDD refers to a physical hard drive.

SSM refers to solid-state memory, which could be a SSD, SD, or integrated nonvolatile memory.

Monochrome Models

Xerox® VersaLink® and AltaLink® Printer or Multi-Function Printers Monochrome Models		Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
VersaLink®	B400/B405	Opt SSM	No	No	Yes
VersaLink®	B600/B605/B610/B615	Opt HDD	Yes	Yes	Yes
VersaLink®	B7025/B7030/B7035	Opt HDD	Yes	Yes	Yes
AltaLink®	B8045/B8055/B8065/B8075/B8090	Yes	Yes	Yes	Yes
Xerox® Phaser® Printer or Multi-Function Printers Monochrome Models		Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
Phaser®	3020	No	-	-	-
Phaser®	3052/3260	No	-	-	-
Phaser®	3300	No	-	-	-
Phaser®	3320	No	-	-	-
Phaser®	3330	Opt SSM	No	No	Yes
Phaser®	3600	No	-	-	-
Phaser®	3610	No	-	-	-
Phaser®	3635 MFP	Yes	Yes	Yes	Yes
Phaser®	4600/4620	Opt HDD	Yes	Yes	Yes
Phaser®	4622	Opt HDD	Yes	Yes	Yes
Phaser®	5550	Opt HDD	Yes	No	No
Xerox® WorkCentre® Printer or Multi-Function Printers Monochrome Models		Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
WorkCentre®	3025BI	No	-	-	-
WorkCentre®	3025NI	No	-	-	-
WorkCentre®	3210/3220	No	-	-	-
WorkCentre®	3215/3225	No	-	-	-
WorkCentre®	3315	No	-	-	-

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WorkCentre® 3325	No	-	-	-
WorkCentre® 3335/3345	Opt SSM	No	No	Yes
WorkCentre® 3550	No	-	-	-
WorkCentre® 3615	No	-	-	-
WorkCentre® 3655	Yes	Yes	Yes	Yes
WorkCentre® 3655i	Yes	Yes	Yes	Yes
WorkCentre® 4250	Yes	Yes	Yes	Yes
WorkCentre® 4260	Yes	Yes	Yes	Yes
WorkCentre® 4265	Yes	Yes	Yes	Yes
WorkCentre® 5135/5150	Yes	Yes	Yes	Yes
WorkCentre® 5225/5230	Yes	Yes	Opt	Opt
WorkCentre® 5325/5330/5335	Yes	Yes	Yes	Yes
WorkCentre® 5632/5638/5645/5655/5665/5675/5687	Yes	Yes	Yes	Yes
WorkCentre® 5735/5740/5745/5755/5765/5775/5790	Yes	Yes	Yes	Yes
WorkCentre® 5845/5855/5865/5875/5890	Yes	Yes	Yes	Yes
WorkCentre® 5865i/5875i/5890i	Yes	Yes	Yes	Yes
WorkCentre® 5945/5955	Yes	Yes	Yes	Yes
WorkCentre® 5945i/5955i	Yes	Yes	Yes	Yes
Xerox® D Copier/Printers Monochrome Models	Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
D Series D95A/D110/D125	Yes	Yes	Yes	Yes
D Series D136	Yes	Yes	Yes	Yes

Color Models

Xerox® VersaLink® and AltaLink® Printer or Multi-Function Printers Color Models		Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
VersaLink®	C400/C405	Opt HDD or SSM	Yes	Yes	Yes
VersaLink®	C500/C505/C600/C605	Opt HDD	Yes	Yes	Yes
VersaLink®	C7000/C7020/C7025/C7030	Opt HDD	Yes	Yes	Yes
AltaLink®	C8030/C8035/C8040/C8055/C8070	Yes	Yes	Yes	Yes
Xerox® ColorQube® Printer or Multi-Function Printers Color Models		Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
ColorQube®	8570/8870	Opt HDD	Yes	No	No
ColorQube®	8580/8880	Opt SSM	No	No	Yes
ColorQube®	8700/8900	Yes	Yes	Yes	Yes
ColorQube®	9201/9202/9203 CBC	Yes	Yes	Yes	Yes
ColorQube®	9201/9202/9203 SBC	Yes	Yes	Yes	Yes
ColorQube®	9301/9302/9303	Yes	Yes	Yes	Yes
Xerox® Phaser® Printer or Multi-Function Printers Color Models		Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
Phaser®	6000/6010	No	-	-	-
Phaser®	6020 Windows	No	-	-	-
Phaser®	6020 Mac	No	-	-	-
Phaser®	6022 Windows	No	-	-	-
Phaser®	6022 Mac	No	-	-	-
Phaser®	6128/6128MFP	No	-	-	-
Phaser®	6280	No	-	-	-
Phaser®	6500	No	-	-	-
Phaser®	6600	No	-	-	-
Phaser®	6700	Opt HDD	Yes	Yes	Yes
Phaser®	7100	Opt HDD	No	Yes	No
Phaser®	7500	Opt HDD	No	Yes	No
Phaser®	7800	Opt HDD	Yes	Yes	No
Xerox® WorkCentre® Printer or Multi-Function Printers Color Models		Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
WorkCentre®	6015 N/NI	No	-	-	-
WorkCentre®	6025 Windows	No	-	-	-
WorkCentre®	6025 Mac	No	-	-	-
WorkCentre®	6027 Windows	No	-	-	-
WorkCentre®	6027 Mac	No	-	-	-
WorkCentre®	6400	Yes	Yes	Yes	Yes
WorkCentre®	6505	No	-	-	-

WorkCentre® 6605	No	-	-	-
WorkCentre® 6655	Yes	Yes	Yes	Yes
WorkCentre® 6655i	Yes	Yes	Yes	Yes
WorkCentre® 7120/7125	Yes	No	Opt	Yes
WorkCentre® 7220/7225	Yes	Yes	Yes	Yes
WorkCentre® 7220i/7225i	Yes	Yes	Yes	Yes
WorkCentre® 7425/7428/7435	Yes	Yes	Yes	Yes
WorkCentre® 7525/7530/7535/7545/7556	Yes	Yes	Yes	Yes
WorkCentre® 7755/7765/7775	Yes	Yes	Yes	Yes
WorkCentre® 7830/7835	Yes	Yes	Yes	Yes
WorkCentre® 7830i/7835i	Yes	Yes	Yes	Yes
WorkCentre® 7845/7855	Yes	Yes	Yes	Yes
WorkCentre® 7845i/7855i	Yes	Yes	Yes	Yes
WorkCentre® 7970	Yes	Yes	Yes	Yes
WorkCentre® 7970i	Yes	Yes	Yes	Yes
Xerox® Color Printer or Color Press Models	Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
Xerox Color 550/560/570	Yes	Yes	Yes	Yes
Xerox Color C60/C70	Yes	Yes	Yes	Yes
Xerox Color C75	Yes	Yes	Yes	Yes
Xerox Color J75	Yes	Yes	Yes	Yes
Xerox® Versant Press Color Models	Hard Drive	Immediate Job Overwrite	Disk Overwrite	Disk Encryption
Versant 80	Yes	Yes	Yes	Yes
Versant 180	Yes	Yes	Yes	Yes
Versant 2100	Yes	Yes	Yes	Yes
Versant 3100	Yes	Yes	Yes	Yes

For additional information or clarification on any of the product information given here, contact your local Xerox Customer Support Centre via the Xerox Website <https://www.xerox.com/about-xerox/contact-us/enus.html> . Xerox welcomes feedback on all documentation - send feedback via https://www.xerox.com/perl-bin/formeng.pl?form=product_security_information_request_7285 .

