Xerox Security Bulletin XRX17-032
Xerox® FreeFlow® Print Server v2.x on Windows

Delivery of: Update Manager SHA2 Patch
Bulletin Date: December 20, 2017

1.0 Background

Xerox® offers customer access to network download and install of FreeFlow® Print Server deliverables such as software patch upgrades and quarterly security patches. The Update Manager on the FreeFlow® Print Server is a GUI-based client application that can access the Xerox Download Manager server to check, download and install software and patch updates.   The FreeFlow® Print Server platform requires customer proxy information configuration so the Update Manager can access the Xerox Download Manager server, which hosts the software and patch deliverables.

Xerox® has updated the Communication servers for services (such as Download Manager) to restrict access to only HTTPS clients that connect with SHA2 hash encryption. This bulletin is notification of an Update Manager patch to update the FreeFlow® Print Server platform to ensure SHA2 connectivity with the Xerox Download Manager server. If this patch is not installed on the FreeFlow® Print Server platform the Update Manager application will fail to connect with the Xerox communication server.

The current existing Xerox printers supported by the FreeFlow® Print Server platform connect to the Xerox Download Manager server with HTTPS (port 443) over the TLS 1.0 protocol using an RSA 2048-bit certificate with SHA1 hash and AES 256-bit encryption. The SHA1 encryption is a hash encryption that suffers cryptographic weakness and its days for useful protection approaching the end. Microsoft, Mozilla and Google have lost confidence in light of known attacks on SHA1 encrypted data. Their Certificate Authorities will stop issuing new SHA1 SSL certificates in 2017 in favor of stronger encryption methods. All of the public Certificate Authorities are moving from SHA1 to SHA2 for new SSL certificates.

The patch for the Update Manager application will ensure connection to the Xerox Download Manager server with HTTPS over the TLS 1.0 protocol using an RSA 2048-bit certificate with SHA2 hash and AES 256-bit stream encryption. The SHA2 and AES 256-bit encryption algorithms are the strongest level among all the commonly available encryption solutions.

Using the Update Manager application ensures privacy for the customer network by virtue of initiating the "secure" communication session with the Xerox Download Manager server. HTTPS requests are only made by the FFPS platform. The Update Manager does not support incoming requests over the HTTPS communication connection, which ensures the remote Xerox communication server can't access the FreeFlow® Print Server or the customer network.

2.0 Applicability

The customer can schedule a Xerox Service or Analyst representative to deliver and install this Update Manager patch. The installation of the Update Manager patch is a script that is run in a PowerShell command window. The configuration will be modified to ensure the highest level of session authentication and information encryption per specified in the section "1.0 Background" of this bulletin.

The Update Manager patch is available for all currently supported FreeFlow® Print Server versions and the Xerox printer products they support. See the supported products below:

Product	Xerox Printer Product
FreeFlow® Print Server 2.0	Xerox® Color C60/C70 Printer
FreeFlow® Print Server 2.1	Xerox® iGen®5 Press
	Xerox® Brenva™ HD Production InkJet Printer

3.0 Patch Install

Xerox® strives to deliver these critical FreeFlow® Print Server patch updates in a timely manner. The customer process to obtain patches is to contact the Xerox hotline support number. Xerox Service or an analyst can install the FreeFlow® Print Server patch using a script utility from the FreeFlow® Print Server hard disk, DVD, or USB media.

The FreeFlow® Print Server patch deliverables are available on a secure FTP site once they are ready for customer delivery. The Xerox CSE/Analyst will obtain the Update Manager patch, which is a script that can be run from a PowerShell command window on the FreeFlow® Print Server platform.

The most common method to install a shell script patch is copy or transfer it to a directory created under the C:\Users\Administrator directory (Windows Administrator home directory), and then execute the script by typing the script name preceded by a dot and forward slash (E.g., ./<shell_script_name>.

The Update Manager connectivity requires testing after the SHA2 update has been completed. The validation can be achieved by launching the Update Manager UI and selecting the 'Check for Updates' option. If the connection is successful using SHA2 connectivity a list of updates will be displayed. Otherwise, an error will be displayed that indicates the Update Manager was unable to connect with the Xerox Communication server.

4.0 Disclaimer

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