Xerox Security Bulletin XRX19-004
Xerox® FreeFlow® Print Server v7 / Solaris® 11

Supports: Xerox Nuvera® PSIP 14.0 Printer Products

Delivery of: January 2019 Security Patch Cluster
Includes: Java 7 Update 211 and Firefox v52.9.0
Bulletin Date: February 20, 2019

1.0 Background

Oracle® delivers quarterly Critical Patch Updates (CPU) to address US-CERT-announced Security vulnerabilities and deliver reliability improvements for the Solaris® Operating System platform. Oracle® does not provide these patches to the public, but authorize vendors like Xerox® to deliver them to customers with an active FreeFlow® Print Server Support Contracts (FSMA). Customers who may have an Oracle® Support Contract for their non-FreeFlow® Print Server / Solaris® Servers should not install patches not prepared/delivered by Xerox®. Installing non-authorized patches for the FreeFlow® Print Server software violates Oracle® agreements, can render the platform inoperable, and result in downtime and/or a lengthy re-installation service call.

This bulletin announces the availability of the following:

1. January 2019 Security Patch Cluster
   - Supersedes October 2018 Security Patch Cluster.
   - October 2017 Security Patch Cluster install is prerequisite.
   - October 2018 Security Patch Cluster install is prerequisite.
2. Java 7 Update 211 Software
   - Supersedes Java 7 Update 201 software.
3. Firefox 52.9.0 Software
   - Same version delivered with previous October 2018 Security Patch Cluster.

Caveat: If the October 2017 Security Patch Cluster (or newer version) is not installed, inserting a USB drive into the USB port on the FreeFlow® Print Server will result in a keyboard and mouse freeze up, and make them inoperable. The October 2017 Security Patch Cluster (or newer version) includes patches to fix this issue. We recommend transferring the Security Patch Cluster files to the FreeFlow® Print Server hard disk over an SFTP connection, and installing from the hard disk. This method can be used to overcome the USB issues.

See US-CERT Common Vulnerability Exposures (CVE) patches installed with Solaris® 11.3 OS Upgrade that are remediated in the table below:

Solaris® 11.3 Included Security Patch Remediated US-CERT CVE's					
CVE-2013-6370	CVE-2015-1819	CVE-2015-2729	CVE-2015-2737	CVE-2015-2922	CVE-2016-0414
CVE-2013-6371	CVE-2015-2721	CVE-2015-2730	CVE-2015-2738	CVE-2015-2923	CVE-2016-0416
CVE-2014-2653	CVE-2015-2722	CVE-2015-2731	CVE-2015-2739	CVE-2015-3900	CVE-2016-0418
CVE-2014-3564	CVE-2015-2724	CVE-2015-2733	CVE-2015-2740	CVE-2015-4020	CVE-2016-0419
CVE-2014-3566	CVE-2015-2725	CVE-2015-2734	CVE-2015-2741	CVE-2015-4920	CVE-2016-0426
CVE-2014-3634	CVE-2015-2726	CVE-2015-2735	CVE-2015-2742	CVE-2015-5600	CVE-2016-0431
CVE-2014-3683	CVE-2015-2728	CVE-2015-2736	CVE-2015-2743	CVE-2016-0403	CVE-2017-10003

See US-CERT Common Vulnerability Exposures (CVE) list for the January 2019 Security Patch Cluster below:

January 2019 Security Patch Cluster Remediated US-CERT CVE's					
CVE-2017-12176	CVE-2017-12179	CVE-2017-12182	CVE-2017-12185	CVE-2018-0732	CVE-2018-0737
CVE-2017-12177	CVE-2017-12180	CVE-2017-12183	CVE-2017-12186	CVE-2018-0734	CVE-2018-5407
CVE-2017-12178	CVE-2017-12181	CVE-2017-12184	CVE-2017-12187	CVE-2018-0735	

See the US-CERT Common Vulnerability Exposures (CVE) list for Java 7 Update 211 software remediate in table below:

Java 7 Update 211 Software Remediated US-CERT CVE's		
CVE-2018-11212	CVE-2019-2422	CVE-2019-2426

See the US-CERT Common Vulnerability Exposures (CVE) list for the Firefox v52.9.0 Software below:

Firefox v52.9.0 Software Remediated US-CERT CVE's					
CVE-2018-12359	CVE-2018-12364	CVE-2018-5150	CVE-2018-5157	CVE-2018-5174	CVE-2018-6126
CVE-2018-12360	CVE-2018-12365	CVE-2018-5154	CVE-2018-5158	CVE-2018-5178	
CVE-2018-12362	CVE-2018-12366	CVE-2018-5155	CVE-2018-5159	CVE-2018-5183	
CVE-2018-12363	CVE-2018-12368	CVE-2018-5156	CVE-2018-5168	CVE-2018-5188	

Note: Xerox® recommends that customers evaluate their security needs periodically and if they need Security patches to address the above CVE issues, schedule an activity with their Xerox Service team to install this announced Security Patch Cluster. Alternatively, the customer can install the Security Patch Cluster using the Update Manager UI from the Xerox® FreeFlow® Print Server Platform.

2.0 Applicability

The customer can schedule a Xerox Service or Analyst representative to deliver and install the Security Patch Cluster from the Update Manager UI, USB/DVD media or the hard disk on the FreeFlow® Print Server platform. A customer can work with the Xerox CSE/Analyst to install the quarterly Security Patch Clusters if they have the expertise. The Xerox CSE/Analyst would be required to provide the Security Patch Cluster deliverables if they agree to allow their customer install.

The January 2019 Security Patch Cluster is available for the FreeFlow® Print Server v7 release on the Solaris® 11.3 OS for the Xerox® printer products below:

1. Nuvera® 100/120/144/157 EA Digital Production System
2. Nuvera® 200/288/314 EA Perfecting Production System
3. Nuvera® 100/120/144 MX Digital Production System
4. Nuvera® 200/288 MX Perfecting Production System

This Security patch deliverable has been tested on the FreeFlow® Print Server 73.I1.10.11 software release. We have not tested the January 2019 Security Patch Cluster on all earlier FreeFlow® Print Server 7.3 releases, but there should not be any problems on these releases.

It is a prerequisite to install the October 2017 and October 2018 Security Patch Clusters on the FreeFlow® Print Server platform before installing the January 2019 Security Patch Cluster. A patch version script is provided to assist with identification of the current Security Patch Cluster version installed as well as other version information

(E.g., Solaris® OS). If the script output illustrates that the January 2018 Security Patch Cluster (or newer version) is installed it means that the October 2017 Security Patch Cluster has already been installed, so that prerequisite is satisfied. If the currently installed Security Patch Cluster is an older version than October 2018, then the October 2018 Security Patch Cluster prerequisite must be installed prior to installing the January 2019 Security Patch Cluster.

Xerox® offers the Security Patch Cluster delivery available over the network from a Xerox server using an application called FreeFlow® Print Server Update Manager. The use of FreeFlow® Print Server Update Manager (GUI-based application) makes it simple for a customer to install Security patch updates. The January 2019 Security Patch Cluster is delivered for install from the Update Manager UI given the smaller size compared to previous Security Patch Cluster versions. The October 2017and 2018 Security Patch Clusters are too large to be supported by Update Manager. These larger deliverables can be transported to the customer location on DVD/USB media, or a laptop computer hard drive, and installed from a directory location on the FreeFlow Print Server platform. As a result of their large size, we deliver the October 2017 and October 2018 Security Patch Clusters as three-part ZIP files. They can be transferred to the FreeFlow Print Server over the network using SFTP, or copied from USB media to prepare for install.

The Update Manager UI delivery of the Security Patch Cluster provides the ability to install Security patches on top of a pre-installed FreeFlow® Print Server software release. The advantage of this network install method is the "ease of delivery and install" from a Xerox patch server over the Internet. This easy install method gives a FreeFlow® Print Server customer the option to manage quarterly Security Patch Cluster install without need for support from Xerox service. This empowers the customer to have the option of installing patch updates as soon as they become available, and not need to rely on the Xerox Service team. Many customers do not want the responsibility of installing the quarterly Security Patch Cluster or they are not comfortable providing a network tunnel to the Xerox® Xerox® communication server that stores Security patches. In this case, the media install method (i.e., USB/DVD, hard drive) is the best option under those circumstances.

The Xerox Customer Service Engineer (CSE)/Analyst uses a tool that enables identification of the currently installed Solaris® OS version, FreeFlow® Print Server software version, Security Patch Cluster version, Java Software version. This tool can be initially run to determine of the prerequisite October 2017 and October 2018 Security Patch Clusters are currently installed. Example output from this script for the FreeFlow® Print Server v9 software is as follows:

Solaris® OS Version:	11.3
FFPS Release Version	7.0_SP-3_(73.I1.10.11.86)
FFPS Patch Cluster	January 2019
Java Version	Java 7 Update 211
Base Repository	Installed

The above versions are the correct information after installing the January 2019 Security Patch Cluster.

3.0 Patch Install

Xerox® strives to deliver critical Security patch updates in a timely manner. The customer process to obtain Security Patch Cluster updates (delivered on a quarterly basis) is to contact the Xerox hotline support number. Xerox Service or an analyst can install the Patch Cluster using a script utility that will support install over the network using the Update Manger UI on the FreeFlow® Print Server platform, or from USB/DVD media, or from the hard disk on the FreeFlow® Print Server platform.

3.1 DVD/USB Delivery and Install Method

The Security Patch Cluster deliverables are available on a secure FTP site once they are ready for customer delivery. The Xerox CSE/Analyst can download and prepare for the install by writing the Security patch update into a known directory on the FreeFlow® Print Server platform, or on DVD/USB media. Delivery of the Security Patch Cluster includes an ISO and ZIP archive file for convenience. Once the patch cluster has been prepared on media, run the provided install script to perform the install. The install script accepts an argument that identifies the media that contains a copy of the FreeFlow® Print Server Security Patch Cluster. (e.g., # installSecPatches.sh [disk | usb | dvd]).

Delivery of the January 2019 Security Patch Cluster includes a ZIP and ISO image file. The ISO image file can be written to DVD media to transport and install on the FreeFlow® Print Server platform. The ZIP file can be copied to a well-defined location on the FreeFlow® Print Server hard drive to prepare for install. Once the patch cluster has been prepared on the hard disk, a script is run to perform the install. Alternatively, the January 2019 Security Patch Cluster can be installed from USB/DVD media.

Note: The install of this Security Patch Cluster can fail if the archive file containing the software is corrupted from when downloading the deliverables from the SFTP site, copying them to USB media or uploading them to the hard drive on the FreeFlow® Print Server platform over a network connection. The table below illustrate file size on Windows®, file size on Solaris® and checksum on Solaris® for the January 2019 Security Patch Cluster files.

January 2019 Security Patch Cluster Files

Security Patch File	Windows® Size (Kb)	Solaris® Size (bytes)	Solaris® Checksum
Jan2019AndJava7Update211Patches_v7S11.zip	1,334,950	1,366,987,810	12455 2669899
Jan2019AndJava7Update211Patches_v7S11.iso	1,335,300	1,367,347,200	39893 2670600

Verify integrity of the Security Patch files from the FreeFlow® Print Server hard drive by comparing it to the original archive file size checksum with the actual checksum of these files on the platform. Change directory to the location of the Security Patch Cluster file and use the UNIX 'sum' command to output the check sum numbers of each ZIP file (E.g., '**sum Jan2019AndJava7Update211Patches_v7S11.zip**'). The output of the '**sum**' command should match the checksum in the above table.

3.2 Update Manager UI Delivery and Install Method

Once Security patches are ready for customer delivery, they are available from the Xerox communication server. Procedures are available for the Customer or Xerox Service for using the Update Manager UI to download and install the Security patches over the Internet. The Update Manager UI has a '**Check for Updates**' button that can be selected to retrieve and list patch updates available from the Xerox communication server. When this option is selected the latest Security Patch Cluster should be listed (E.g., **January 2019 Security Patch Cluster for FFPS v7.3 / Solaris 11**) as available for download and install. The Update Manager UI includes mouse selectable buttons to download and then install the patches.

Xerox® uploads the Security Patch Cluster to a Xerox patch server that is available on the Internet outside of the Xerox® Corporate network once the deliverable has been tested and approved. Once in place on the Xerox server, a CSE/Analyst or the customer can use FreeFlow® Print Server Update Manager UI to download and install on the FreeFlow® Print Server platform.

The customer proxy information is required to be setup on the FreeFlow® Print Server platform so it can access to the Security Patch Update over the Internet. The FreeFlow® Print Server platform initiates a “secure” communication session with the Xerox communication server using HTTP over the TLS 1.0 protocol (HTTPS on port 443) using an RSA 2018-bit certificate, SHA2 hash and AES 256-bit stream encryption algorithms. This connection ensures authentication of the FreeFlow® Print Server platform for the Xerox server, and sets up encrypted communication of the patch data. The Xerox server does not initiate or have access to the FreeFlow® Print Server platform behind the customer firewall. The Xerox server and FreeFlow® Print Server platform both authenticate each other before making a connection between the two end-points, and patch data transfer.

4.0 Disclaimer

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