



# FreeFlow<sup>®</sup> Web Services Customer Expectations Document

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# Introduction

This document provides the feature details and expectations for FreeFlow® Web Services. It is intended to help Customers understand the capabilities, requirements and limitations of the current release.

FreeFlow Web Services is a business workflow management software application designed for the printing industry. It serves as a platform for communication between the Print Service Provider and the Print Buyer by providing a dedicated web server for Internet access to the print shop through a web browser. Web Services provides a web storefront for your customers to submit new jobs, and reorder existing ones in a secure environment from virtually anywhere. Jobs are quickly and easily transitioned into production or other FreeFlow services—reducing errors and simplifying the fulfillment process.

Web Services and the optional add-on modules address the needs of Print Service Providers by providing production-workflow management, together with a complete e-procurement platform and information management capabilities.

## Product Overview

FreeFlow Web Services allows printers of all sizes to create, customize, order, print and deliver jobs in one streamlined operation. With Web Services, printers can stay connected to their customers with fast and easy print-on-demand and variable print services, as well as benefit from a fully-automated workflow and business flow— from job order through delivery. By integrating ordering, file creation, customization, approval, printing and delivery, Web Services streamlines processes for digital and hybrid print shops of all sizes.

Web Services allows customers to create and order simple, personalized, and variable data jobs through an enhanced product catalog with attractive navigation tools. Since your customers can also create multiple stores with custom buying flows, they can easily provide a customized purchasing experience for print buyers from any market. The system also allows your customers to generate instant quotes, PDF proofs, and reports. By integrating all these processes into a cost-effective, streamlined operation, Web Services enables print providers to offer more efficient services to their existing customers and opens up new business opportunities for new customers and new services.

## Features

	Print Provider	Print Buyer
<b>Easy Internet shopping experience</b>	<ul style="list-style-type: none"> <li>Seamlessly connect with existing Intranet</li> </ul>	<ul style="list-style-type: none"> <li>No training necessary for online ordering and price quoting</li> </ul>
<b>Provides strong back-end production-management capabilities</b>	<ul style="list-style-type: none"> <li>Prioritization of jobs in the production queue</li> <li>Print file management</li> </ul>	<ul style="list-style-type: none"> <li>Supports need for turnaround and customer satisfaction</li> </ul>
<b>Open system works seamlessly with other third-party systems</b>	<ul style="list-style-type: none"> <li>Complies with most industry standards, including JDF and variable data print output</li> <li>Application Programming Interface (API) allows Print Providers to meet unique business requirements</li> </ul>	
<b>Significantly streamlines print shop operations while enhancing customer service capability</b>	<ul style="list-style-type: none"> <li>Provides a single point of focus for job management</li> <li>Simplifies and streamlines ordering and payment processes</li> <li>Supports PDF conversion either on the client or the server</li> <li>Advanced GUI can define simple or complex jobs, customize the ordering sequences, and even prevent print buyers from ordering “impossible” jobs</li> </ul>	<ul style="list-style-type: none"> <li>Easily handles reorders from your customers with a “shopping cart” approach that identifies costs up front</li> <li>Enables dynamic, real-time price estimation during job setup and submission</li> <li>Supports job submission from both PC and Mac, with security via user account password</li> </ul>
<b>Enables integrated personalized printing capabilities</b>	<ul style="list-style-type: none"> <li>Optimizes variable data printing through the VIPP Emitter, making it possible for any VIPP-enabled print server to achieve optimal variable printing</li> <li>Enables integration with third-party applications, including variable data generation and variable campaign management</li> </ul>	<ul style="list-style-type: none"> <li>Supports basic text and image personalization with dynamically updated preview through a step-by-step wizard</li> </ul>

## Optional Modules

A range of optional, add-on modules may be purchased for advanced capabilities, making Web Services the most comprehensive solution, suitable for companies and organizations around the globe.

### Order Center

Order Center expands the capabilities of Web Services by consolidating Web, phone, fax, and walk-in orders into a single application. As a result, job-handling time and overhead costs are dramatically reduced. Order Center can be used for many offline job-submission tasks, including:

- Generating quotes
- Converting quotes to orders
- Generating invoices
- Tracking and following up on the status of quotes, orders, invoices, and payment

Increased tracking capabilities make it easier to manage every aspect of a job, from quote, to order, through production and delivery. Improved billing features generate invoices, track outstanding debt, and ensure that all jobs are billed correctly the first time.

### Site Customization

By providing customers with websites customized to their look and feel, Web Services makes print providers a strategic partner. This dynamic branding application enables the print provider to control and customize the Web “skins” for individual print buyers. It provides complete design control over the main print buyer application windows, including fonts, color, and size, providing customers with a consistent Web presence that, in turn, increases loyalty.

### Book Assembly

With the Web Services Book Assembly option, customers can offer dynamically created bound books, integrating multiple or just a single file into a single book. This option even lets Print Buyers soft proof a variety of content, binding options, and tabs prior to submitting the book for print.

### Credit Card (Online Payment)

Web Services makes accepting payment online extremely simple and trouble-free. The Credit Card module enables secure online payment with credit cards or online payment using popular e-commerce sites including, but not limited to, Atos Worldline, Authorize.net®, Barclay China Bank, DebiTech™, DPD Poland Carrier, ePDQ, Moneris, PayPal™ and Saferpay®.

### Data Export (Link)

Data Export enables Web Services to easily integrate with various existing peripheral systems in a print shop such as accounting and estimating. This option reduces errors by enabling your operators to export data from Web Services directly to peripheral systems including MIS, or export select data to an Excel spreadsheet. The Data Export option is a

prerequisite for the LDAP Adapter, and to enable the MobiletoPrint™ capability in Web Services.

The Data Export option is also a prerequisite for integrating with the Web Services *Create Order* Application Programming Interface (API). Please refer to “Application Programming Interface” later in this document for more information.

## **LDAP Adapter**

The Lightweight Directory Access Protocol (LDAP) Adapter enables user authentication when logging into the Web Services system by way of a directory service. This optional module is designed to integrate with the Data Export module, which must be purchased in conjunction with the adapter.

## **Direct Marketing Links**

The Direct Marketing Link is an application interface that enables the integration of Web Services with third-party applications such as variable data and image generation to increase the capabilities and effectiveness of direct mail campaigns. Direct Marketing Links is a prerequisite for the XMPie PersonalEffect and DirectSmile adapters.

## **DirectSmile Image Generator Adapter**

The DirectSmile Image Generator Adapter allows users to incorporate personalized images generated with DirectSmile into a Web Services template. This optional module is designed to integrate with Direct Marketing Links, which must be purchased in conjunction with the adapter.

Prerequisite: DirectSmile VDP Studio and VDP Pro versions 4.2.675 (purchased separately)

## **XMPie PersonalEffect Adapter**

The XMPie PersonalEffect Adapter integrates a robust Web ordering capability with state-of-the-art PersonalEffect VDP campaigns, as well as highly-creative personalized imaging based on XMPie ulmage. Users can select and order campaign templates created and stored on the XMPie PersonalEffect Server from within Web Services. Print buyers can access, customize, and order variable data campaigns directly from Web Services, including dynamic proofing and the generation of variable data output formats supported in PersonalEffect. This optional module is designed to integrate with Direct Marketing Links, which must be purchased in conjunction with the adapter.

Prerequisite: XMPie PersonalEffect Server Edition version 5.x (purchased separately), including the ulmage component if rendering personalized images is required.

## **Xerox Variable Information Production Printware (VIPP) Emitter**

This optional module optimizes your variable data printing by making it possible for any VIPP-enabled print server to achieve optimal variable printing. It gives print buyers more flexibility and expands the types of jobs that they can order over the Web.

Prerequisite: FreeFlow VI Compose

## Backup License for Disaster Recovery

Customers have the option to obtain a second, Web Services license (backup license) to be used for the purpose of disaster recovery (failure of Production system) and/or as a staging system (validation of Web Services software patches or Service Packs prior to installation on the Production system).

The Backup License must be installed on a second server and includes licenses for all optional modules purchased with the Production system.

The backup system may not be used simultaneously with the Production system as a secondary production system. Please refer to “Software Backup and Restoration” later in this document for more information.

## FreeFlow Web Services Pro (Scalable Solution)

FreeFlow Web Services Pro is a scalable solution that provides additional capacity and enhanced performance beyond the base Web Services software. Web Services Pro enables parallel processing on the Web Services server for system operations like preview, imposition, variable information and preflight – allowing Print Service Providers to support a greater number of concurrent users, while delivering enhanced system throughput and faster response times for Print Buyers as they select and customize documents, view digital previews and place orders.

FreeFlow Web Services Pro is available as a Professional Services offering and includes an analysis of a customer’s current system configuration and usage in order to tailor system performance to specific needs. Web Services Pro is recommended for customers who need to support a high number of users and/or customers who plan to offer multiple complex documents to their Print Buyers.

Contact your Xerox representative for more information.

## Application Programming Interface (API)

FreeFlow Web Services features an Application Programming Interface (API), which can be used to develop new capabilities leveraging the Web Services platform. The *Create Order* API allows Customers and software developers to connect third-party integrations or plug-ins to Web Services’ backend to place an order directly in Web Services. It is specifically designed to accommodate the following scenarios:

- Create a customized online buyer experience
- Push orders to FreeFlow Web Services from an external system such as a web site, MIS, etc.

## Capabilities of the Create Order API

The Create Order API extends the functionality of Web Services, allowing you to modify the customer ordering experience through the development of a custom interface. In addition, you can take advantage of Web Services’ advanced automation capabilities to manage orders that come directly into Web Services from third-party workflow solutions.

- Authentication – Tighten your business security when integrated with a third-party system by digitally authenticating orders and granting users access to Web Services

- Account – Extract user information, Address Book, preferences, privileges and more from Web Services and share the data with the integrated application
- Store – Browse Web Services templates and job types from another application
- Job – Programmatically create a Web Services job based on a specified template or job type, upload media and get variable information
- Pricing – Extract price information from Web Services for a quote
- Order – Place an order from a third-party system while utilizing Web Services' checkout settings

The Create Order API is available free of charge to Web Services customers with a valid Field Service Maintenance Agreement (FSMA) and includes technical tools and standard support to address general questions and issues specific to the API. The Data Export (Link) option is required to integrate with the API.

More comprehensive Developer support is available for a fee. The Developer Support Package provides Developers with an initial 8 hours of code-level assistance and consultation. Additional support packages of 4 hours each may be purchased separately thereafter. Customers who do not have experience with the Microsoft .NET framework are strongly encouraged to take advantage of the Developer Support Package.

Contact your Xerox representative for more information and availability.

# System Technical Requirements

# 1

## Performance and Capacities Guidelines

FreeFlow Web Services is designed to address the needs of customers in production print environments such as Commercial Print, CRD or In-plant reprographics centers by providing the functionality to store, retrieve and manage the print center's documents, and to facilitate an ease of upload/download and viewing of documents via the Internet/Intranet. The performance of the Web Services server is dependent on a number of variables, including network traffic, server storage, system configuration – as well as, the number and type of operations being performed by the Web Services server.

Regardless of PC platform capability, the system performance may decrease with the introduction of color reprographic images. The associated FreeFlow operations acting on these large color images may therefore be slower. Although every effort is explored to achieve optimum performance, reduced performance may be experienced with some operations.

The Web Services performance criterion defined below are guidelines for satisfactory system performance. They are not meant to be defining limits. Actual performance results may vary with different customer environments. The number of concurrent users with satisfactory performance will vary based upon the type and mix of template ordering, uploading large CSV files, job submission, printing and/or Administrative operations being performed at any given time.

### Guidelines

- Server connection to the local area network (i.e. intranet) must be on 100 Mbps / full duplex or faster
- Server connection to the external Internet is provided by your service provider. The Customer should regularly monitor network performance to ensure that it is meeting both internal and external customer expectations
- The Customer should have in-house IT support to certify and maintain the network
- The Customer should have a qualified Web Services-trained in-house System Administrator
- Operators should be trained for web operations, not casual users

# System Operating Ranges

System Operating Ranges
<b>Reliability and Load</b>
<ul style="list-style-type: none"><li>• Load parameters<ul style="list-style-type: none"><li>– 50 concurrent users</li><li>– 50 jobs per hour</li></ul></li><li>• Stress parameters<ul style="list-style-type: none"><li>– Max Job types – 100</li><li>– Generic job types – 50</li><li>– Jobs in Printing queue – 200</li><li>– Jobs in Production queue – 200</li></ul></li><li>• Scheduled maintenance<ul style="list-style-type: none"><li>– Weekly maintenance window</li><li>– Backup the Database and Newedition</li></ul></li></ul>
<b>File Upload</b>
<ul style="list-style-type: none"><li>• File size: 400 MB</li><li>• Page size: 100x100 inch</li><li>• VI file upload:<ul style="list-style-type: none"><li>– VI Data: 30 columns, 15 active columns x 10,000 records</li><li>– Total file size: 5 MB</li></ul></li></ul>
<b>Import Data</b>
<ul style="list-style-type: none"><li>• Stock item import – 1000 items</li><li>• Customer import – 1000 customers</li><li>• User import – 1000 users</li></ul>

The Web Services server has finite hardware resources. These resources are shared to perform many comprehensive tasks, which impact system performance. Over time, these resources are expected to increase through hardware and software performance improvements.

By following the guidelines defined above the overall operation can be optimized. The Web Services software is designed to monitor the amount of resources available and issue alert messages if those resources become constrained. For example, when attempting to view PDF conversions, users may receive a message that their request has been queued and they will need to wait until the resource is available.

## PC Platform Support

The Xerox escalation process, including SPAR (Software Problem Action Report) support, is available for compliant hardware and software configurations only. Compliant PC platform specifications and software configurations are tested by Xerox to ensure product stability; that such products have supported upgrade and migration paths, and can be maintained by trained service and support organizations.

FreeFlow Web Services is supported by Xerox on PC platforms that meet (or exceed) the system requirements defined by Xerox on the next page. Should Xerox determine that the customer-supplied PC does not meet or exceed these requirements, Xerox reserves the right to refuse installation of Web Services software.

It is the responsibility of the Customer to provide, install and configure the server with an appropriately licensed version of the Operating System prior to the installation of the Web Services software. Please refer to “System Settings” later in this section for more information.

### **Virtualization**

Software may be installed in a virtual environment. The virtual environment must be configured to meet the same hardware configuration and performance as the standard environment. For important information regarding installing Web Services in a virtual environment, refer to Section 2, “System Software Requirements.”

### **Storage Area Network (SAN)**

Running FreeFlow Web Services in a Storage Area Network (SAN) environment has not been formally tested or validated by Xerox. Customers who elect to connect Web Services to a SAN are responsible for obtaining a PC platform that meets (or exceeds) the system requirements defined by Xerox on the next page. For important information regarding installing Web Services in a SAN environment, refer to Section 2, “System Software Requirements.”

## Minimum System Requirements

Minimum System Requirements		
<b>Hardware Components</b>		
Minimum required hardware components for FreeFlow Web Services		
	<b>Required</b>	<b>Recommended</b>
Processor	Quad-Core 2.4 GHz (64-bit) or better or equivalent AMD processor	Two, Quad-Core Processors 2.4 GHz (64-bit) or better
System Memory	8 GB	12 GB
Hard Drive	<p><b>Note:</b> The Web Services software and all customer data must reside on the same disk partition. Customers should make appropriate allowances for future disk space requirements when configuring the partition on which the Web Services software and customer data will reside</p> <p>Using multiple drives separates the Windows Operating System from Web Services' usage of the disk subsystem</p>	
	<p>250 GB hard drive at 10,000 RPM. Disks partitioned as follows:</p> <ul style="list-style-type: none"> <li>• Drive C: Operating System and database. This partition must be a minimum of 80 GB (with at least 10 GB free space)</li> <li>• Drive D or E: FreeFlow Web Services installation (remainder of hard disk space allocated to this partition)</li> </ul>	<p>Multiple drives running at 15,000 RPM: SCSI or SAS interface (SATA drives are not recommend due to performance issues), partitioned as follows:</p> <ul style="list-style-type: none"> <li>• Drive C: At least 80 GB, separate from other drives (with at least 10 GB free space)</li> <li>• Additional Drives: RAID-5 configuration with a minimum of 500 GB</li> </ul>
Network	Standard 10/100 network card and connection	A permanent connection with a fixed IP address
Internet Bandwidth*	<p>2/1 Mb (dedicated line – not ADSL: 2 for download, 1 for upload)</p> <p>* Based on 50 users of browsing and an upload rate of 10 users x 30 MB per hour. For more information, refer to "System Operating Ranges"</p>	4/2 Mb (dedicated line – not ADSL: 4 for download, 2 for upload)
Peripheral Devices	<p>Display: CRT/LCD Monitor and Video Controller with at least 1024 x 768 resolution and 32-bit color</p> <p>DVD-ROM drive, Keyboard and Mouse</p>	
<b>Software Components</b>		
Software components that the Customer must procure and install for FreeFlow Web Services		
Operating System	<p>Microsoft Windows Server 2012 Standard or Enterprise Edition</p> <p>Microsoft Windows Server 2008 R2 (64 bit) Standard or Enterprise Edition</p>	
Infrastructure	Microsoft Windows Server 2012 Standard or Enterprise Edition	

	<ul style="list-style-type: none"> <li>• Microsoft ASP.NET MV 3</li> <li>• Microsoft ASP.NET MV 4</li> <li>• Microsoft .NET Web Pages</li> <li>• Microsoft .NET Web Pages 2</li> </ul> <p>Microsoft Windows Server 2008 R2 (64 bit) Standard or Enterprise Edition</p> <ul style="list-style-type: none"> <li>• Microsoft .NET Framework version 4.0</li> </ul>
Application Software	<p>Microsoft Office 2013 (32 bit) Home, Business or Professional Edition</p> <p>Microsoft Office 2010 (32 bit) Home, Business, Standard or Professional Edition</p> <p><b>Note:</b> Microsoft Office 2007 is supported for existing Web Services 8.x customers who upgrade to Web Services 9.0 on Microsoft Windows Server 2008 (32-bit) only. All other customers must procure and install Microsoft Office 2010. Refer to “Print Service Provider Client Software Requirements” later in this document for more information</p>
Compression Software	WinZip

## Required Privileges and Passwords

The table below lists the privilege and password requirements for the installation of FreeFlow Web Services:

Resource	Required for
Database Administrator	<ul style="list-style-type: none"> <li>• Administrator passwords for existing database servers</li> <li>• Information about the location of SQL servers and data files</li> </ul>
System Administrator	<ul style="list-style-type: none"> <li>• Granting authorization to necessary directories</li> </ul>

## Required System Settings

### Microsoft Windows Server 2012

The following section provides the information needed to configure the server with the required system settings in preparation for installing FreeFlow Web Services on a server running Microsoft Windows Server 2012.

#### Connect the Server to the Local Network

Ensure that only one network adapter is installed and configured with a static IP address, and that the Web Services server is connected to the local network. Refer to “FreeFlow Product Security Considerations” later in this document for more information on factors to consider when connecting the server to the network.

### Note

The server must have only one network adapter installed. If more than one is installed, the extra network adapters must be disabled

The server must use an external static IP address. If an internal IP address is used, there will be problems viewing and ordering jobs outside of the local network

### Verify that the Server has a Static IP Address

1. Navigate to [Start: Control Panel: Network and Internet: Network and Sharing Center].
2. Select [Change adapter settings].
3. Right-click [Local Area Connection] and select [Properties].
4. Select [Internet Protocol Version 4] and select [Properties].
5. Verify that the IP Address exists.

### Verify that the Server is connected to the Local Network

1. Navigate to [Start: Windows PowerShell].
2. Enter **ping <internal server IP>**, where *<internal server IP>* represents the internal IP address of any other internal network device.

### Verify that the Server has Access to the Internet

1. Launch Internet Explorer on the Web Services server and enter a valid web site URL in the address bar.

## Prepare the Server

### Note

Installing a FreeFlow Web Services system into a Domain is not supported. However, the system can be attached to a Domain following the installation as long as it remains in the same Workgroup. This will provide access to many Domain resources, but will not include Domain control Login and associated privileges.

### Install ASP.NET MVC 3 and ASP.NET MVC 4

ASP.NET MVC 3 and MVC 4 are requirements for installing Web Services and are available as a free download from Microsoft. Download and install the software from:

- ASP.NET MVC 3: <http://www.asp.net/mvc/mvc3>
- ASP.NET MVC 4: <http://www.microsoft.com/en-us/download/details.aspx?id=30683>

### Install ASP.NET Web Pages and ASP.NET Web Pages 2

ASP.NET Web Pages and Web Pages 2 are requirements for installing Web Services and are available as a free download from Microsoft. Download and install the software from:

- ASP.NET Web Pages: <http://www.microsoft.com/en-us/download/details.aspx?id=15979>
- ASP.NET MVC 4: <http://www.microsoft.com/en-us/download/details.aspx?id=27420>

## Install Internet Explorer 10 Patch

A Hotfix for the ASP.NET browser definition files that are included in the Microsoft .NET Framework 4.0 is required to enable support for Internet Explorer 10. Download the Hotfix from:

- Hotfix NDP40-KB2600088: <http://support.microsoft.com/kb/2600088>

### Note

The “Hotfix download available” form displays the languages for which the Hotfix is available. If you do not see the required language, you may need to submit a request to Microsoft

## Install New Server Roles

### Note

During the Add Roles Wizard, you will be presented with various windows explaining what mandatory components need to be installed for each Role. To properly install the Roles, you must agree to install these mandatory components at each stage that they are presented

1. Navigate to [Start: Administrative Tools: Server Manager]
2. In the Server Manager window, right-click the [Roles] option and select [Add Roles]. The ‘Add Roles Wizard’ appears
3. In the Before You Begin screen, select [Next].
4. In the Installation Type screen, select the ‘Role-based or feature-based installation’ radio-button, and click [Next].
5. In the Server Selection screen, select the name of the Web Services server from the Server Pool, and click [Next].
6. In the Server Roles screen, select the following checkboxes and then click [Next]:
  - Application Server
    - .NET Framework 4.5
    - COM+ Network Access
  - File and Storage Services
    - File and iSCSI Services: [File Server]
    - Storage Services
  - Web Services (IIS)
    - Web Server
      - Common HTTP Features (all checkboxes)
      - Health and Diagnostics: [HTTP Logging]
      - Performance: [Static Content Compression]
      - Security: [Request Filtering]
      - Application Development (all checkboxes)
    - FTP Server (all checkboxes)
    - IIS Hostable Web Core

- Management Tools (all checkboxes)
7. In the Features screen, select the following checkboxes and then click [Next]:
    - .NET Framework 3.5 Features
      - .NET Framework 3.5
      - HTTP Activation
    - .NET Framework 4.5 Features (all checkboxes)

#### **Note**

Ensure that all 'WCF Services' checkboxes are selected

- Messaging Queuing
    - Message Queuing Services: [Message Queuing Server]
  - User Windows PowerShell Interfaces and Infrastructure
    - Graphical Management Tools and Infrastructure
    - Server Graphical shell
  - Windows PowerShell
    - Windows PowerShell 3.0
    - Windows PowerShell 2.0
    - Windows PowerShell ISE
  - Windows Process Activation Service (all checkboxes)
  - WoW64 Support
8. In the Confirmation screen, check the option [Restart the destination server automatically if required] and then click [Yes] to confirm.
  9. Click [Next] and select [Install].

#### **Configure the Hosts File**

1. Browse to [C:\WINDOWS\SYSTEM32\DRIVERS\ETC\HOSTS].
2. Select and open the Hosts file and edit the following:
  - a. Remove the “#” sign that appears before: "127.0.0.1 localhost"
  - b. Delete the line “::1 local host”.
3. Save and close the file after editing.

#### **Note**

Adding additional IP addresses to the Windows host file before installing FreeFlow Web Services may result in errors. If you need to add other IP addresses to the Host file (e.g. for integration purposes), add them after completing the FreeFlow Web Services installation

#### **Define Microsoft Office Security Settings**

Repeat the following procedure for each Microsoft Office application separately (Word, Excel and PowerPoint):

1. Open the Microsoft Office application, select the [File] tab and click [Options].

2. Select the [Advanced] tab and scroll down to [General]
3. Deselect the [Update automatic links at open] checkbox
4. Select the [Trust Center] tab and click [Trust Center Settings].
5. Select the [Macro Settings] tab and click the [Disable all macros with notification] radio button.
6. Click [OK] and then close the application.

#### **Note**

Make sure that the Microsoft Office applications are activated and no pop-up messages about activation or registration appears

Verify that the “Save as PDF” option is available from within each Microsoft Office application

#### **Disable Anti-virus Software**

Disable all anti-virus software running on the server during installation. Enable the anti-virus software after installation according to the instructions in “Configuring the Anti-virus Software” later in this document.

#### **Clean out the Temp folder**

1. Navigate to [Start: Run].
2. Enter <%Temp%> and press [Enter].
3. Delete all (possible) items in the folder.

#### **Configure Server Settings**

##### **Disable Windows Firewall**

1. Navigate to [Start: Control Panel: Windows Firewall].
2. Click [Turn Windows Firewall on or off].
3. Select the [Off] radio button and click [OK].

#### **Note**

It is recommended that your network be protected by a firewall that is not located on the Web Services server itself

##### **Set the Server Date & Time**

1. Navigate [Start: Control Panel: Date and Time].
2. Set the date and time and click [OK].

##### **Define User Account Control Settings**

1. Navigate to [Start: Control Panel: User Accounts: User Accounts].
2. Click [Change User Account Control settings].
3. Select the [Never notify setting] and click [OK].

### **Verify that the Windows Search Service is Disabled**

1. Select [Start: Administrative Tools: Services].
2. Verify that the Windows Search Service is not installed.

#### **Note**

If the Windows Search Service is installed, stop it and change its startup type to “Disabled”

### **Turn Off Automatic Updates**

1. Navigate to [Start: Control Panel: Windows Update].
2. Click [Change settings].
3. Select the [Never Check for Updates] radio button and click [OK].

### **Verify that the IIS Service is Running**

1. Navigate to [Start: Administrative Tools: Services].
2. Select the service called ‘World Wide Web Publishing Service.’
3. Verify that the service is started and that its startup type is set to [Automatic].

### **Verify the System Locale**

1. Navigate to [Start: Control Panel: Clock, Language, and Region: Region and Language].
2. Select the [Administrative] tab.
3. Click the [Change system locale] button.
4. Verify that the Current System Locale is set to the same language as the Operating System.
5. Restart the server if prompted.

#### **Note**

Verify that the settings in Web Services [System Setup: Basic: Time Zone] are set to the same System Locale as the Operating System

## **Microsoft Windows Server 2008 R2 (64 bit)**

The following section provides the information needed to configure the server with the required system settings in preparation for installing FreeFlow Web Services on a server running Microsoft Windows Server 2008 R2 (64 bit).

### **Connect the Server to the Local Network**

Ensure that only one network adapter is installed and configured with a static IP address, and that the Web Services server is connected to the local network. Refer to “FreeFlow Product Security Considerations” later in this document for more information on factors to consider when connecting the server to the network.

### **Note**

The server must have only one network adapter installed. If more than one is installed, the extra network adapters must be disabled

The server must use an external static IP address. If an internal IP address is used, there will be problems viewing and ordering jobs outside of the local network

### **Verify that the Server has a Static IP Address**

1. Navigate to [Start: Control Panel: Network Connections].
2. Right-click [Local Area Connection] and select [Properties].
3. Select [Internet Protocol Version 4] and select [Properties].
4. Verify that the IP Address exists.

### **Verify that the Server is connected to the Local Network**

1. Navigate to [Start: All Programs: Accessories: Command Prompt].
2. Enter **ping <internal server IP>**, where *<internal server IP>* represents the internal IP address of any other internal network device.

### **Verify that the Server has Access to the Internet**

1. Launch Internet Explorer on the Web Services server and enter a valid web site's URL in the address bar.

## **Prepare the Server**

### **Note**

Installing a FreeFlow Web Services system into a Domain is not supported. However, the system can be attached to a Domain following the installation as long as it remains in the same Workgroup. This will provide access to many Domain resources, but will not include Domain control Login and associated privileges.

### **Install .NET Framework 4**

.NET Framework 4 is a requirement for installing Web Services and is available as a free download from Microsoft. Download and install the software from:

<http://go.microsoft.com/fwlink/?LinkId=181013>.

### **Note**

.NET Framework 4.5.1 is not supported with Web Services 9.0 Service Pack 3 (9.0.3.0)

## **Install New Server Roles**

### **Note**

During the Add Roles Wizard, you will be presented with various windows explaining what mandatory components need to be installed for each Role. To properly install the Roles, you must agree to install these mandatory components at each stage that they are presented

1. Navigate to [Start: Administrative Tools: Server Manager]

2. In the Server Manager window, right-click the [Roles] option and select [Add Roles]. The 'Add Roles Wizard' appears
3. In the Before You Begin screen, select [Next].
4. In the Server Roles screen, select the following checkboxes and then click [Next]:
  - Application Server
  - File Services
  - Web Server (IIS)
5. In the Application Server screen, select all of the checkboxes except [WS-Atomic Transactions] and then click [Next].
6. In the Web Server (IIS) screen, select all of the checkboxes and then click [Next].
7. In the File Services screen, select the following checkboxes and then click [Next]:
  - File Server
  - Services for Network File System
8. Click [Next] and select [Install].

### **Configure the Hosts File**

1. Browse to [C:\WINDOWS\SYSTEM32\DRIVERS\ETC\HOSTS].
2. Select and open the Hosts file and edit the following:
  - a. Remove the “#” sign that appears before: "127.0.0.1 localhost"
  - b. Delete the line “::1 local host”.
3. Save and close the file after editing.

### **Note**

Adding additional IP addresses to the Windows host file before installing FreeFlow Web Services may result in errors. If you need to add other IP addresses to the Host file (e.g. for integration purposes), add them after completing the FreeFlow Web Services installation

### **Define Microsoft Office Security Settings**

Repeat the following procedure for each Microsoft Office application separately (Word, Excel and PowerPoint):

1. Open the Microsoft Office application, select the [File] tab and click [Options].
2. Select the [Advanced] tab and scroll down to [General]
3. Deselect the [Update automatic links at open] checkbox
4. Select the [Trust Center] tab and click [Trust Center Settings].
5. Select the [Macro Settings] tab and click the [Disable all macros with notification] radio button.
6. Click [OK] and then close the application.

### **Note**

Make sure that the Microsoft Office applications are activated and no pop-up messages about activation or registration appears

Verify that the “Save as PDF” option is available from within each Microsoft Office application

### **Disable Anti-virus Software**

Disable all anti-virus software running on the server during installation. Enable the anti-virus software after installation according to the instructions in “Configuring the Anti-virus Software” later in this document.

### **Clean out the Temp folder**

1. Navigate to [Start: Run].
2. Enter <%Temp%> and press [Enter].
3. Delete all (possible) items in the folder.

## **Configure Server Settings**

### **Disable Windows Firewall**

1. Navigate to [Start: Control Panel: Windows Firewall].
2. Click [Turn Windows Firewall on or off].
3. Select the [Off] radio button and click [OK].

#### **Note**

It is recommended that your network be protected by a firewall that is not located on the Web Services server itself

### **Set the Server Date & Time**

1. Navigate [Start: Control Panel: Date and Time].
2. Set the date and time and click [OK].

### **Verify the System Locale**

1. Navigate to [Start: Control Panel: Clock, Language, and Region: Region and Language].
2. Select the [Administrative] tab.
3. Click the [Change system locale] button.
4. Verify that the Current System Locale is set to the same language as the Operating System.
5. Restart the server if prompted.

#### **Note**

Verify that the settings in Web Services [System Setup: Basic: Time Zone] are set to the same System Locale as the Operating System

### **Define User Account Control Settings**

1. Navigate to [Start: Control Panel: User Accounts: User Accounts].
2. Click [Change User Account Control settings].

3. Select the [Never notify setting] and click [OK].

### Verify that the Indexing Service is Disabled

1. Select [Start: Administrative Tools: Server Manager].
2. Expand Roles and select [File Services].
3. Verify that the Indexing Service is not installed.

### Turn Off Automatic Updates

1. Navigate to [Start: Control Panel: System and Security: Windows Update].
2. Click [Change settings].
3. Select the [Never Check for Updates] radio button and click [OK].

### Verify that the IIS Service is Running

1. Navigate to [Start: Administrative Tools: Services].
2. Select the service called 'World Wide Web Publishing Service.'
3. Verify that the service is started and that its startup type is set to [Automatic].

### Set the Default Application Pool

1. Navigate to [Start: Administrative Tools: Internet Information Services (IIS) Manager].
2. Expand the [Server Name] node and select [Application Pools].
3. Right-click the [DefaultAppPool] and select [Advanced Settings].
4. Set .NET Framework Version to [v2.0] and then click [OK].

## Ports

Each application that communicates on the network is assigned a port number. The ports that are required to allow communication with the Web Services server are detailed in the table below.

Port <sup>1</sup>	Port Name	Direction of Communication	Application Server	Purpose
80	HTTP	To/From the server	Internet	Required for browsing
21	FTP	To/From the server	Internet	Required for uploading multi-file images to the image bank. Authentication is optional <sup>2</sup>
3200	Java Applet (Optional)	To/From the server	Internet	Required for automatic refresh of the different queues on the Print Service Provider side <sup>3</sup>
25	SMTP	From the server to the mail server	Any SMTP Server	Required for sending emails
135	Active Directory/	From the server to Active Directory or	Active Directory or Exchange	Required for sending emails or using Active Directory services

	Exchange	mail server	server	
443	HTTPS(SSL) (Optional)	To/From the server	Internet	Required for browsing if the HTTPS feature is used (Secure Connection)
1433	SQL (Optional)	To/From the server	SQL Server	Required for accessing the SQL database
389	LDAP (Optional)	To/From the server	Microsoft/Novell	Required for using LDAP

<sup>1</sup> The numbers specified for the named ports (HTTP, FTP, SMTP, HTTPS) are the default numbers that are commonly used. Web Services requires these port numbers remain with their default values. If the number is changed, users of the Web Services server must be informed so they can correctly connect to the server.

<sup>2</sup> The authentication option for FTP results in passwords being transmitted over the network without data encryption. Someone attempting to compromise your system security could use a protocol analyzer to examine user passwords during the authentication process.

<sup>3</sup> Port 3200 is used by Web Services to refresh the business queues. If you do not open this port for the Java applet, Web Services will still function correctly, but the queues on the Print Service Provider side (Production and Delivery queues) will take longer to show new Jobs that arrive in the queue. If the server is placed in a DMZ and these queues are browsed only from the LAN (i.e. from the production computers), it is possible to deny communication using this port from the Internet and enable it just for LAN-DMZ connections.

#### Note

Web Services uses port 25 to communicate SMTP traffic. This is a universal code used by Web Services which cannot be changed. Providers that are external or shared that use dynamic IPs are not supported by Web Services due to a technical limitation with such environments which are known to intermittently drop packets and e-mail messages

## Secure Communication with SSL (HTTPS)

In order to enable the Web Services server to use HTTPS the server must have an SSL certificate installed. After installation, users will be able to browse to the Web Services web site using HTTPS.

The advantages of using the SSL security feature with Web Services include:

- Verifying the integrity of the incoming content
- Verifying the identity of the incoming content
- Encrypting network transmissions

The disadvantage is that the encryption reduces the data transfer rate.

#### Note

The “Print Driver” and “Advanced Upload” features in Web Services do not work with HTTPS.

Although it is possible to configure a server with an SSL certificate to only accept HTTPS connections, Web Services does not support this configuration. When HTTPS is used with Web Services, the server must be able to accept HTTP calls as well. It is possible to configure Web Services to automatically redirect any HTTP connection attempts to HTTPS.

Refer to the “FreeFlow Web Services Print Service Provider Guide” for more information.

# Protecting Against Power Issues

Changes in power can effect computer equipment and cause software/hardware damage and file corruption resulting in a service call and possibility the need to reload system software that can result in downtime.

## **Note**

Xerox strongly recommends that the FreeFlow product hardware be kept on a dedicated electrical line with an Uninterruptible Power Supply (UPS), Surge Protection, and Power Fluctuation Protection.

# System Software Requirements

# 2

## Software License Permissions

Several FreeFlow software products are available for purchase from Xerox including FreeFlow Makeready, FreeFlow Process Manager, FreeFlow Express to Print, FreeFlow Output Manager, FreeFlow Print Manager-Advanced Print Path and the FreeFlow VI Suite. Each software product is sold with user permissions conveyed as part of the purchase price.

The purchase of FreeFlow Web Services grants the purchaser the right to install one instance of the software; meaning the software may only be installed on a single server platform at any given time for each license purchased. The FreeFlow license is not transferable.

The Customer is solely responsible for obtaining and complying with all appropriate licenses for the Microsoft Windows Server 2008 Operating System and Microsoft Office application suite. To the extent that Customers require Microsoft Client Access Licenses (CALs) as a result of their particular server/application usage and/or configuration, they are solely responsible for their acquisition, administration and full compliance therewith. Information on CAL requirements is available from Microsoft at the following link: <http://www.microsoft.com/licensing/about-licensing/client-access-license.aspx>

Additionally, the Customer is solely responsible for obtaining and complying with all appropriate licenses for any third-party components used by the Customer in conjunction with the FreeFlow software, including but not limited to QuarkXPress, Adobe Photoshop, InDesign and Illustrator.

### **Note**

During the installation process, the Web Services software will attempt to access an external server to obtain a unique site code. Failure to obtain a unique site identifier upon installation and/or access to an external network for this purpose will in no way affect the normal operation of the application.

## Mixed Environments Support

For Customers who purchase FreeFlow Web Services and other FreeFlow products, it is strongly encouraged – although not mandatory, that Web Services be at the same software version as the other FreeFlow products. The other FreeFlow products must be at the same level. Unique characteristics may be created with document generation relative to file format, file contents and system compatibility with differing versions of FreeFlow software. Keeping the FreeFlow software at the same release levels will also facilitate efficient problem escalation and resolution.

If possible, this constraint should also be adhered to when sharing files across environments.

## Virtualization Support

When installing FreeFlow Web Services in a virtualized environment, it is the Customers responsibility to provide full support of the virtualization environment and virtual software itself. The Customer must also provide a fully-configured virtualized environment, including access and support thereof to the Xerox technician to install the FreeFlow software in the virtual environment. Only the following virtualization software is supported:

- Hyper-V
- VMware ESX version 3.5 or above

### **Note**

Software issues will only be supported if they can be reproduced on the standard hardware configuration. For FreeFlow problems unique to the virtualization environment itself, Xerox will make best effort to fix.

## Software Area Network (SAN) Support

Running FreeFlow Web Services in a Storage Area Network (SAN) environment has not been formally tested or validated by Xerox. Customers who elect to connect Web Services to a SAN are responsible for obtaining a PC platform that meets (or exceeds) the system requirements defined by Xerox in Section 1, "System Technical Requirements." Should Xerox determine that the customer-supplied PC does not meet or exceed the hardware specifications, Xerox reserves the right to refuse installation of the Web Services software.

When installing in a SAN environment, it is the Customers responsibility to provide full support of the SAN environment and SAN software itself. Customers must also provide a fully-configured SAN environment, including access and support thereof to the Xerox technician to install the Web Services software. All problems related to the SAN configuration must be handled by appropriate IT personnel. Xerox will be available to assist the Customer's IT personnel as a technical resource for SAN-related problems on a Time and Material (T&M) basis only.

Software issues will only be supported if they can be reproduced on the standard hardware configuration. For FreeFlow problems unique to running in a SAN environment itself, Xerox will make a best effort to fix.

# Xerox and Third-Party Application Software Support

FreeFlow Web Services is supported by Xerox through a Full Service Maintenance Agreement (FSMA). The intent is to provide Customers with the most reliable and productive software for the Print Center marketplace. To this end, the system is extensively tested from a hardware and software perspective to ensure system reliability.

The FreeFlow Product Support Organization is trained to perform diagnostic routines that help isolate problems. These routines are designed with a total system philosophy in mind to quickly isolate any issues that may arise. However, they rely on a known system environment to establish an initial starting point, and third-party software cannot be comprehended by the diagnostics. In order to isolate software problems effectively, the support organization will attempt to recreate any issues on standard supported systems.

The introduction of software outside of the standard FreeFlow product configuration poses obstacles to effective problem isolation and/or diagnosis and cannot be supported. As such, the server platform should only be used for the operation of Web Services and not for other Operating System functions such as acting as a domain controller, mail server, etc.

## Software provided by Xerox

- FreeFlow Web Services
- Adobe Acrobat 9.3.2

### Note

As of the publication of this document, Web Services supports Adobe Acrobat version 9.5.5. Following the installation of Web Services, Customers may download and install the patches required to update Acrobat to version 9.5.5 from the Adobe website. Subsequent / future updates should not be applied unless / until support for said update(s) is communicated by Xerox Support

## Software supplied by the Customer

### Operating System

- Microsoft Windows Server 2012 *or*
- Microsoft Windows Server 2008 R2 Standard or Enterprise Edition (64 bit)

### Application Software

- Microsoft Office 2013 Home, Business or Professional Edition (32 bit)
- Microsoft Office 2010 Home, Business, Standard or Professional Edition (32 bit)
- WinZip

**Required for Windows Server 2012**

- Microsoft ASP.NET MV 3
- Microsoft ASP.NET MV 4
- Microsoft .NET Web Pages
- Microsoft .NET Web Pages 2

**Required for Windows Server 2008 R2**

- Microsoft .NET Framework version 4.0

The Customer is responsible for obtaining and installing an appropriately licensed version of the Microsoft Office application suite. The Microsoft Office application suite must be installed prior to installing the Web Services software to ensure the proper operation of the system. After installing the Microsoft Office application suite on the Web Services server, the user must open these applications and register them before performing any conversions within Web Services.

## Specifics

Customers assume the responsibility of loading additional software on the FreeFlow product at their own risk. Xerox service and support cannot be held accountable for the additional application software or the data files that may be created with them. In the event of software or hardware problems, to effectively diagnose and isolate the problem the service / support engineer may require that the third-party software be removed from the FreeFlow product. The Customer is responsible for this activity.

In the event of catastrophic events where hardware and/or software failure may erase or otherwise destroy application software and/or hardware, the Xerox support team is only responsible for the Xerox-supplied components.

**Recommendation**

Customers who elect to install third-party software applications with the FreeFlow product should consult with their local support team to define a backup and support strategy that will protect their investment and information.

# FreeFlow Product Security Considerations

Computer/Information Security is a journey and not a destination. Even the most secure systems are vulnerable to someone who has the right knowledge, access, and enough time. Threats include physical damage to the system over the network, as well as damage caused by viruses. The goal is to minimize the security risks as much as possible, and have policies in place to detect and reduce the negative impact of a security incident. Examples of things that can be done to reduce risks include proper use of logins and passwords, restricting network access, and the use of virus detection software.

FreeFlow Web Services is a web server that must remain running at all times to enable public access from the Internet. The nature of access includes web browsing and file uploading, and anyone authorized to perform these actions is considered a potential user. Web Services includes user-based authentication that prevents unauthorized users from accessing the application. However, while the server is open to the Internet (as with any unprotected web server), the server is also open to attacks by viruses, worms, Trojan horses, and hackers. These attacks on data, software, and hardware do not require logging in to Web Services.

## FreeFlow Security

### **Xerox's Role**

Xerox will strive to provide the most secure software product possible based on the information and technologies available while maintaining the products performance, value, functionality, and productivity.

Xerox will:

- Run industry standard security diagnostics tests during development to determine vulnerabilities. If found, the vulnerabilities will either be fixed, minimized, or documented
- Monitor, notify, and supply (when necessary) security patches provided by third-party software vendors used with the FreeFlow products (i.e. Microsoft Service Packs)

### **Customer's Role**

Although the FreeFlow product support team will try to provide software that is secure, the Customer is ultimately responsible for securing their environment to meet their specific security needs. Depending on the customer needs, the Customer can increase security by installing a firewall, implementing a private network, and/or physically securing the hardware to a limited access area. The Customer, depending on their needs, should use tools to monitor and log physical and network access to the FreeFlow hardware and software to determine if and when a security incident has occurred. The Customer should also back-up their data regularly to ensure that it may be recovered in case of deletion or corruption.

In implementing a security strategy, Customers must keep in mind that they should not modify the FreeFlow product system or its environment in any way that will prevent it from functioning properly. If the Customer performs such modifications, Xerox will not be able to support the product should problems occur and the Customer may be required to return the FreeFlow product back to the original installed state. This may include uninstalling unsupported software, resetting configuration settings, or reinstalling the Operating System and/or FreeFlow software itself.

Customers should perform Windows Update (custom option) on a weekly basis. Microsoft updates are supported as they become available. High priority and security-related updates are critical and should always be installed unless otherwise directed by Xerox. For more information, refer to the “FreeFlow 9.0 Security Guide” or visit the Xerox Security Information website at: <http://www.xerox.com/information-security/enus.html>

## Software Backup and Restoration

Backing up the software is a Customer responsibility. Refer to the “FreeFlow Web Services Customer Release Notes” for detailed procedures.

It is important to backup FreeFlow Web Services data regularly. Much of this data is held within the Windows File System and the Microsoft SQL Server database. If the Print Service Provider receives a large, daily load of new jobs through FreeFlow Web Services, the recommendation is to perform a complete backup once a day, at 3:00 AM. It is also recommended to perform an additional complete backup, once a week, at any time that the system is not in production. The backup can be saved on a tape or to a file, but if using a file, it should not be kept on the FreeFlow Web Services server itself to avoid filling up needed disk space. The files should be kept on a separate, safe disk.

All the files needed to backup Web Services are stored in a single directory called “Newedition.” This folder is found on the same disk partition as the Web Services application in a directory called “Newsway.”

Backup for the FreeFlow Web Services files can be carried out using any commercially available backup software. However software packages using SQL Server Express cannot be installed on the Web Services server. If no software is available, the files can be copied to a safe disk as a backup procedure; however, it is highly recommended to use reliable ‘Advanced Open File’ backup software.

### Note

The Newedition folder must always be on the same disk partition as the Newsway directory. External storage of this folder is not supported.

The Web Services software must be stopped prior to backing up any folders, and restarted when the backup has completed. Failure to do so will result in incomplete and useless backups.

## Restoring a Backup

Only backups made from the same version of the software may be used to restore the system. If you have upgraded Web Services since your most recent backup, you must perform a “rollback” before attempting to restore the system from a backup. For more information about performing a rollback, contact Technical Support.

Xerox strongly recommends that you also create a backup of your current data before restoring a backup.

## Backup License for Disaster Recovery

Customers have the option to obtain a second, Web Services license (backup license) to be used for the purpose of disaster recovery (failure of Production system) and/or as a staging system (validation of Web Services software patches or Service Packs prior to installation on the Production system).

The Backup License must be installed on a second server and includes licenses for all optional modules purchased with the Production system.

The backup system may not be used simultaneously with the Production system as a secondary production system.

## Protecting Against Virus Attacks

A virus is a software program that replicates itself, trying to infect as many files and computers as possible. A virus may spread through the sharing of files between computers, through e-mail, or through exposed network connections. Viruses may damage data, cause the computer to crash, display messages, impose performance implications, expose security holes, or lie dormant.

### Protecting FreeFlow products from virus contamination

#### **Xerox's Role**

Xerox takes special precautions to ensure the software is shipped free from computer virus contamination. Xerox Customer Support Engineers also take precautions when performing service on the equipment to ensure that software viruses are not introduced into the system.

#### **Customer's Role**

We strongly recommend that Customers invest in a virus detection software application to continue to protect their FreeFlow product from viruses, and incorporate the guidelines listed below. The Customer is responsible for validating that the virus software does not interfere with the normal operation of the FreeFlow software product.

- On a regular basis (weekly), run virus detection software on all FreeFlow product workstations
- In the event you find a virus on a FreeFlow product workstation, do not remove the virus. Instead, cancel the virus detection and back up the entire hard drive. This is to protect the data in the event of corruption during the course of the virus removal. The virus can then be removed using the procedures supplied with the virus protection software

## Antivirus software

FreeFlow Web Services protects itself from viruses by only allowing non-executable design files such as PDF, PS, EPS, TIFF, JPG, DOC, and PPT to be uploaded to the Web Services server. Once on the Web Services server, those files that are not already PDF files are converted to the PDF format. From this point forward, Web Services deals with PDF files exclusively. However, Microsoft Word documents remain a threat due to macros, which may contain a virus.

Norton™ Symantec Antivirus 10.1 (or later) and Symantec Endpoint Protection 11.0 have been tested on the Web Services server. These programs block any attempt to access restricted areas in the memory and system area. They also periodically scan the hard drive to find files that might contain a virus.

Since most antivirus applications will block some of the Web Services application activity, there is a need to configure the specific antivirus application in order to allow Web Services to function (refer to “Configuring your Antivirus Software” below).

### Note

Running an antivirus program on the Web Services server may result in degraded speed and performance. Therefore, it is recommended that the server be scanned through a remote service.

## Configuring your Antivirus software

There are certain system files that are critical for Web Services to run properly. Therefore, if you are running an antivirus program on the Web Services server, you must configure your antivirus software to exclude the following files:

- ..\Newsway\Global.asa
- ..\Newsway\Global.asax
- ..\Newsway\Web.config
- ..\Newsway\installs\SetPermissions.vbs
- ..\Newsway\Config.bat
- ..\Newsway\installs\DeveloperInstaller (all files and subfolders)

To verify that the files listed are not scanned, define the files in the exclusion settings of the specific anti-virus program in use.

To ensure maximum protection from new viruses, update or upgrade your virus detection software regularly.

# Xerox Production Printer Support

FreeFlow Web Services is integrated with Xerox production printing technology, allowing the Print Service Provider to utilize production-level job ticket programming and selection of FreeFlow Digital Front-Ends (DFEs) for Xerox production printers. There are several methods available in Web Services for communicating to Xerox production printers or other FreeFlow modules. One method uses the Job Definition Format (JDF), and a protocol called Job Messaging Format (JMF). Not all Xerox Production Printers natively support JDF/JMF and, instead, another FreeFlow module such as FreeFlow Process Manager, FreeFlow Output Manager or FreeFlow JMF Service may be used to submit the job from Web Services to the printer.

When using JDF/JMF, a Web Services 'Output Device' is created in order to route the job to the appropriate FreeFlow module. The actual routing of the job is normally assigned as part of the pricing setup of a template or Job Type. For Process Manager, a specific workflow is assigned. For Output Manager and JMF Service, a specific queue is selected. In all cases, the JDF information is sent via JMF messages to the next module.

## Note

Since JDF is an emerging standard, not all possible job ticket attributes from Web Services are currently supported by the JDF path. However, many of the current shortfalls may be addressed by mapping Web Services to specific workflows in Process Manager. Refer to the "FreeFlow Web Services Print Service Provider Guide" for more information.

## FreeFlow Web Services Printer Connectivity

Jobs may be submitted from Web Services to a Xerox Production Printer from the following FreeFlow products:

- FreeFlow Print Manager-Advanced Print Path (XPIF Job Ticketing), including RDO file support through Catalog reprint workflow (legacy)
- FreeFlow Process Manager (using JDF intent: support for Catalog and submission jobs)
- FreeFlow JMF Service (using JDF digital printing process or JDF intent: support for Catalog, submission and Book Assembly jobs)
- FreeFlow Output Manager (using JDF digital printing process or JDF intent: support for Catalog, submission, and Books Assembly jobs)

Please refer to the "FreeFlow Web Services Print Service Provider Guide" and the "FreeFlow Web Services Book Assembly Supplement" for more information.

## FreeFlow JMF Service

Automated job submission from Web Services to Xerox production printers is supported through FreeFlow JMF Service, which is available at no charge independent of the Web Services software. Customers who require this level of printing automation should contact their Xerox representative for more information and availability.

FreeFlow JMF Service must be installed co-resident on the Web Services server.

# Open Printing Overview

Open Printing allows the FreeFlow software to print to any network Postscript printer. Open Printing enablement is accomplished by selecting the Generic Postscript Printer option for the Production printer device.

## Recommended Minimum Requirements

To use the Generic Postscript Printer type, the printer must meet the following minimal requirements:

- Raster Image Processor (RIP) is Postscript Level 2 compliant
- The print device accepts print data via the LPR printing protocol
- The RIP on the printer must be robust enough to handle print jobs that are typical from the FreeFlow software. Typically these are comprised of a Postscript file with embedded TIFF or other images. Most production class devices will not see any issues with this type of data stream. Some smaller office or older networked laser printers may not be able to handle the print stream reliably

## Limited Job Ticketing

The Generic Postscript Printer type only supports a limited set of job ticketing attributes: copy count, collate/uncollate, simplex/duplex, paper size, and portrait staple. The print device must be able to interpret the setpagedevice Postscript command in the Postscript data stream to understand these job ticketing attributes.

## Limited Level of Support

The FreeFlow products have not been tested with every printer sold in the production environment. Validation for the FreeFlow software and every Generic Postscript Printer type cannot be accomplished. FreeFlow products will not provide any support for the Generic Postscript Printer type against any specific printer. FreeFlow products will provide the standard high level of support for common problems associated with the Generic Postscript Printer type.

# Upgrade/Migration Roadmap

The following upgrade and migration paths are supported for FreeFlow Web Services:

- FreeFlow Web Services 7.x → Web Services 8.x → Web Services 9.x (upgrade)
- FreeFlow Web Services 8.x → Web Services 9.x (upgrade)

New customer installations require Microsoft Windows Server 2008 R2 (64-bit). In-place upgrades on the Windows Server 2008 (32-bit) and Windows Server 2008 R2 (64-bit) Operating Systems, and platform migration from the Windows Server 2003 and Server 2008 (32-bit) Operating Systems to Windows Server 2008 R2 (64-bit) are supported on customer-supplied servers that meet (or exceed) the system requirements as defined by Xerox in the “PC Platform Support” section of this document.

Platform migration from Microsoft Windows Server 2008 (32 or 64 bit) to Windows Server 2012 (64 bit) is supported on customer-supplied servers that meet or exceed the system requirements defined by Xerox.

In-place and platform Operating System migration, and migrating from a Web Services server that has implemented a remote Microsoft SQL database requires additional Professional Services, which are billed separately. Refer to “Professional Services” later in this document or contact your Xerox representative for more information.

## Note

The Dell Precision 670 and 690 servers are no longer supported with the latest release of Web Services. Existing customers with a Dell Precision 670 or 690 server must obtain a platform that meets or exceeds the system requirements in order to upgrade (platform migration) to the latest release.

Upgrades and/or migrations from Web Services 5.0 and 6.0 are not supported, and will be treated as a new installation of the latest release of Web Services on a platform that meets (or exceeds) the minimum required specifications as defined by Xerox. Refer to “Additional Considerations” below for important information.

Upgrades and/or migrations from any prior release of Web Services; DigiPath 1.x, 2.1 and 4.0, DigiPath 3.0 Web Viewing & Submission, DigiPath 4.1 Web Services and Web Services 4.0, are not supported and will be treated as a new installation of the latest version of Web Services. In addition, upgrades and/or migrations from any version of Pageflex iWay to Web Services is not supported and will be treated as a new installation.

## Additional Considerations

### Web Services 5.0 and 6.0 ‘Progression’

As a result of the extensive improvements and changes in infrastructure and functionality, the transition – or ‘Progression’ from Web Services 5.0/6.0 to the latest release of Web Services, requires manual reconfiguration of the system. Due to the nature of maintaining a live web portal during this transition, an “in-place” (on an existing Web Services server) upgrade is not possible and a second server to perform a new installation of the latest release of Web Services is required.

In order to ensure that Web Services 5.0/6.0 customers can seamlessly transition to the latest release and take full advantage of the new capabilities, customers who elect to obtain the latest release of Web Services will be able to continue to operate their existing system as a separate, fully-licensed system in parallel with the new system. However, the existing system will no longer be eligible for support or software upgrades.

## **Web Services New Features Update Training and Value-Added Services**

Due to the extensive changes in functionality, all Web Services 5.0/6.0 customers (regardless of experience-level) will require New Features Update Training.

In addition to update training, Xerox also offers optional, fee-based Value-Added Services for customers who require additional assistance recreating their data:

- Web Services New Features Update Training (required): 3 days
  - Includes enabling up to 2-3 (depending upon complexity) end-to-end workflows and SuperStore for an initial Account, and post-deployment consulting
- Basic Configuration Service<sup>1</sup> (optionally available for version 6.0 customers only): 4 days
  - Includes manually exporting Account, user and stock data from the Web Services 6.0 system and importing to the new system
- Advanced Professional Services (optional) per quote
  - Account/template recreation, Site Customization, etc.

Contact your Xerox representative for important information regarding the requirements and considerations for upgrading to the latest release of Web Services.

<sup>1</sup> includes Web Services New Features Update Training

# Product-Specific Considerations

## Print Service Provider Client Software Requirements

The table below lists the software requirements for the Print Service Provider. The Print Service Provider will be browsing to the server as a client and never as “localhost,” which is not supported.

Parameter	Required
Operating System	Windows Vista with Service Pack 2 Windows 7 with Service Pack 1
PDF Software (optional)	Adobe Acrobat X/XI Reader (for preview purposes only) <b>Note:</b> If the Print Buyer is using the old ‘Selective Upload’ and ‘Modify PDF’ plug-ins, they must use Adobe Acrobat 8.2.2, 9.4.2 or 9.5.x Standard Edition (including Acrobat Distiller)
Office Software	Microsoft Office 2013 (32 bit) Home, Business or Professional Edition Microsoft Office 2010 (32 bit) Home, Business, Standard or Professional Edition
Compression Software	WinZip
Web Browsers	Internet Explorer 9.0 or 10.0 <b>Note:</b> The 64 bit version of Internet Explorer is not supported when using the ‘Selective Upload’ and ‘Modify PDF’ plug-ins, and the PDF file cannot be previewed within the browser, only downloaded

# Print Buyer Client Software Requirements

The table below lists the software requirements for the Print Buyer clients of FreeFlow Web Services.

Parameter	Required
Operating System	<p>Microsoft Windows XP Pro with Service Pack 3</p> <p>Microsoft Windows Vista Business Edition with Service Pack 2</p> <p>Microsoft Windows 7 with Service Pack 1</p> <p>Mac OS version 10.8</p> <p><b>Note:</b> Mac OS 10.8 is not supported when using the 'Selective Upload' and 'Modify PDF' plug-ins, and the PDF file cannot be previewed within the browser, only downloaded</p>
PDF Software	<p>Adobe Acrobat X/XI Reader (for preview purposes only)</p> <p>Adobe Acrobat Reader 8.2.2, 9.4.2 or 9.5.x</p> <p><b>Note:</b> If the Print Buyer is using the old 'Selective Upload' and 'Modify PDF' plug-ins, they must use Adobe Acrobat 8.2.2, 9.4.2 or 9.5.x Standard Edition (including Acrobat Distiller)</p>
Web Browsers	<p>Firefox 6.0 or higher</p> <p>Safari 6.1</p> <p><b>Note:</b> Safari 6.1 is not supported when using the 'Selective Upload' and 'Modify PDF' plug-ins, and the PDF file cannot be previewed within the browser, only downloaded</p> <p>Internet Explorer 9.0 or 10.0</p> <p><b>Note:</b> The 64 bit version of Internet Explorer is not supported when using the 'Selective Upload' and 'Modify PDF' plug-ins, and the PDF file cannot be previewed within the browser, only downloaded</p>
Office Software	<p>Microsoft Office 2013 (32 bit) Home, Business or Professional Edition</p> <p>Microsoft Office 2010 (32 bit) Home, Business, Standard or Professional Edition</p> <p><b>Note:</b> To ensure that conversion includes all Microsoft Office 2010 features when uploading a Microsoft Office 2010 file, Microsoft Office 2010 must be installed on the Print Service Provider's server</p>

## E-Commerce Support

FreeFlow Web Services supports e-commerce using payment sites including, but not limited to, Atos Worldline, Authorize.net®, Barclay China Bank, DebiTech™, DPD Poland Carrier, ePDQ, Moneris, PayPal™ and Saferepay®. Payment processing is handled by the e-commerce services.

### Limitations

- Payment processing using an e-commerce service may incur fees, which the Web Services customer must agree to
- If the e-commerce service doesn't authorize the deal, the order will not be sent
- Cancellation of e-commerce orders requires the print shop to refund the money to e-commerce service. If a customer asks the print shop to cancel their order, a two-step cancellation becomes necessary:
  - The print shop must cancel the order in Web Services
  - The print shop must login to the e-commerce service to refund the money to the customer
- Customers that use Web Services in an internal secure LAN may not be able to use an e-commerce service due to firewall restrictions on incoming connections (which is needed for e-commerce service to update the order status)
- Customers behind a proxy server must have access to the e-commerce service website in order to finish an online payment order in Web Services

## PDF Conversion

PDF conversion occurs when a file is uploaded to the Web Services server. Once converted to PDF, the file can be used for the following operations within Web Services:

- Perform pre-press operations, such as imposition on high-resolution PDF
- Submit high-resolution PDF to printer output devices
- Display low-resolution PDF for job preview

FreeFlow Web Services supports two types of built-in PDF creation:

- Server-side PDF creation – converts a source document to PDF on the Web Services server. The conversion takes place at the server after the file is uploaded
- Client-side PDF submission – converts a source document to PostScript (on the client-system prior to transmitting the file to the Web Services server). PostScript files are subsequently converted to PDF on the server

## Server-Side PDF Creation

The following file types can be converted and printed from Web Services using the server-side PDF creation:

- Microsoft Word
- Microsoft PowerPoint
- Microsoft Excel
- JPG, JPEG
- PS (PS and EPS)
- PDF
- TIF & TIFF<sup>1</sup>
- GIF

<sup>1</sup> TIFF files with the following characteristics are not supported for file upload:

- TIFF files with JPEG compression (use other types of compression when creating TIFF files)
- TIFF files with a PHOTOMETRIC-type color space (such as PHOTOMETRIC\_MASK, PHOTOMETRIC\_YCBCR, PHOTOMETRIC\_CIELAB, PHOTOMETRIC\_PALLETE) (use other types of color space when creating TIFF files)

Server-side PDF creation requires the installation of the following applications on the Web Services server in order to convert and print applicable file types:

- Microsoft Office 2010/2013 (32 bit)\*

\* Software must be procured and installed by the Customer

Processing time is dependent upon the complexity of the source document and number of queued conversion requests.

## Client-Side PDF Submission

Client-side PDF submission involves the use of a print driver installed on the Print Buyer's PC. This allows conversion from applications that print through a Windows or Mac print driver. The Print Buyer selects [File: Print] from within their application and selects the print driver keyed to the Web Services server. A PostScript file is created and sent to the Web Services server where it is converted to a PDF file.

Client-side PDF submission is supported from the following applications:

- Microsoft Office (Word, Excel, PowerPoint) 2007 with Service Pack 2
- Microsoft Office 2010/2013 (32 bit)

Client printer drivers for the following operating systems are provided and supported:

- Microsoft Windows 2003
- Microsoft Windows XP Professional
- Microsoft Windows XP Home
- Windows 7 (32 bit)
- Mac OS version 10.5.8, 10.6.x and 10.7

Processing time is dependent upon the complexity of the source document and, for Windows, the number of queued conversion requests on the server.

## External Repository Support

FreeFlow Web Services supports integration with Xerox DocuShare version 6.5.3. In addition, Web Services can be integrated with Microsoft SQL Server 2008/2012.

Integration with an external repository requires additional Professional Services, which are billed separately. Refer to “Professional Services” later in this document or contact your Xerox representative for more information.

### **Note**

Integration with Microsoft SharePoint 2007/2010 (32 or 64 bit versions) is not supported on Windows Server 2008 R2 64 bit and Windows Server 2012



# Customer Implementation and Training

# 4

Xerox offers comprehensive services, including implementation and Customer training, which are designed to address a variety of individual customer requirements and experience levels.

## Xerox Customer Training

The training portion is delivered by a trained instructor and consists of up to five consecutive days of onsite presentations, demonstrations and monitored hands-on tutorials for Web Services. Training also includes six (6), one hour post-deployment follow-up sessions with the Print Provider. These follow-up sessions are scheduled over a ten week period. Any optional, add-on modules purchased with the base Web Services software may require additional days of training.

Refresher and update training courses are also available for those customers who require additional and/or supplemental training. Courses can be delivered onsite, at the customer location, or via remote session. Contact your Xerox representative for more information.

A typical course agenda includes the following topics:

### **The Print Service Provider**

- Introduction and Overview
- Daily Tasks
- Application setup
- Management
- Branding
- Backup and Restore procedures
- Create up to 3 workflows

### **The Print Buyer**

- Introduction and Overview
- Basic Ordering Methods
- Management
- Advanced Ordering Methods
- Create Templates

## Site Requirements for Customer (Print Provider) Training

The customer must provide an area suitable for training. Consideration should be given to noise levels, as well as adequate space and seating. The training location for the Web Services server and the permanent server locations may need to be different.

A customer-provided client workstation that meets the Web Services product requirements should be made available for use throughout the duration of the training.

### Customer Responsibilities (Required)

- Provision of one training PC per student. Each training PC must have the following software installed:
  - A supported web browser (Internet Explorer) and Adobe Acrobat installed
  - All pop-up blockers on the training PCs will need to be disabled for the duration of the training

### Note

Acrobat Reader must not be co-installed on the training PCs

- During the training, the users of the training PCs will need to log on with administration rights
- Private training room with network drops and sufficient cable for each provided PC. The network drops should all be capable of connecting to the Internet. The room should also have sufficient tables, chairs and electrical cords for all the required hardware and participating individuals. Tables should be of sufficient size for PC and the training reading material
- Computer projector capable of at least 1024 x 768
- The training room should have a projector screen or white blank wall for projecting an image from the projector. The room should be capable of low light so projected image can be seen
- A static IP address or DNS to be assigned to the Web Services server must be provided
- A SMTP connection to be used by the Web Services system for sending emails. This connection is the relay connection, not the client-to-server connection. The SMTP server must be capable of accepting emails from a relay server
- Removal of participants from all duties and interruptions during the hours of the training. Hours will be approximately 8:00 AM to 5:00 PM (local time) with the understanding that continuing past 5:00 may be necessary
- Availability of the site's IT person to provide required assistance, especially during the morning of the first day
- Sign off of the End User License Agreements for all software installed by Xerox on the Web Services server

## Optional Training Requirements

- Availability of a Xerox printer that can be setup on the Web Services server and tested during the training
- White board or equivalent for illustrating Web Services processes

Please let the trainer know if any of the above cannot be provided. Failure to provide the trainer with advance notice of an incomplete training environment that requires extra activity by the trainer may result in additional billable charges.

Please let your trainer know in advance if you have any specific topics or workflow processes that you would like to cover in detail.

## End-User Training for the Print Buyer

End-user training for the Print Buyer is the responsibility of the Print Service Provider using the training materials supplied with FreeFlow Web Services. These include electronic versions of the manuals to guide end-users through ordering and management.

Xerox may also be engaged to develop and deliver customized training courses for Print Buyers. Contact your Xerox representative for more information.

## Professional Services

Xerox offers a variety of Professional Services to help customers deploy FreeFlow Web Services in their environment. The Professional Services process involves gathering customer requirements, initiating a Statement of Work (SOW) and providing a quote to the Customer for delivery and implementation. Contact your Xerox representative for more information.

Professional Services offered by Xerox include:

- Configuration of customer-supplied platforms, including:
  - Operating System installation
  - Operating System and platform migration
  - Configuring Microsoft .NET
  - Configuring IIS and FTP components
  - Configuring Antivirus software
  - Network configuration and consultation
  - Backup configuration
- Microsoft SQL Server 2008/2012 integration and configuration
- Application development, including integration with payment gateways and shipping carriers
- Integration with third-party accounting, inventory and/or print management software
- SuperStore, custom skin and HTML development

- Workflow design and implementation
- Pricing structure setup
- Credit card setup and integration
- FreeFlow Process Manager and Output Manager integration
- LDAP integration
- Integration with XMPie PersonalEffect
- Output device setup and configuration
- Hosting Services
- Customized training
- Product demonstrations

**Note**

Support for Professional Services falls outside of standard software support and a separate agreement for maintenance and support must be purchased, if applicable, at the customer's option

All Professional Services require validation and, in some cases, the redesign of any custom code each time a software patch and/or new major version of the Web Services software are released. In such cases, the Professional Services Statement of Work (SOW) may include the provision for the first-year of maintenance and support to ensure that the Professional Service remains interoperable with the latest release(s). Thereafter, customers may renew maintenance and support services annually. Any travel required for maintenance and support services will be billed separately.

Customers with Professional Services should engage their local Xerox representative before installing the latest release(s) of the Web Services software to make arrangements to validate the Professional Service prior to updating the Web Services software.

# Customer Software Support

# 5

Xerox products and solutions are fully maintained and supported through the Full Service Maintenance Agreement (FSMA). The agreement covers software support for a given product or solution. As part of the FSMA, FreeFlow software and operational assistance is available through Xerox Support. This group works closely with various software development organizations to resolve software issues that inevitably arise. The process by which to address these problems is referred to as the Software Problem Action and Resolution (SPAR) process, which enables closed-loop communication between the customer and the development organizations.

PC platforms acquired through Xerox are not covered under the software FSMA and come with the standard hardware warranty provided by the PC vendor.

Support is available via the Xerox support center Monday through Friday, 8:00 AM to 5:00 PM (local time). Xerox shall have no responsibility for identifying or correcting deficiencies in non-Xerox products connected to, or used with the FreeFlow software, or for otherwise providing service or support for such non-Xerox products.

## Sustaining Engineering

Customers who wish to remain at an older release of software are entitled to the hotline support as outlined in the FSMA. However, operational and software issues will only be handled on a 'best-effort' basis. Xerox Support will attempt to resolve problems to the best of their ability based on available skill levels, hardware and software availability. Development support for problems on older versions of the software will not be provided.

The following software releases are supported by Xerox Support:

- Web Services version 9.0: This is the latest version of the software. Problems found with this version will be escalated to the Development team and, if appropriate, patches will be issued against the Web Services 9.0 codebase. There is a cost associated with the upgrade from previous releases to Web Services 9.0
- Previous FreeFlow Web Services and DigiPath software releases: Xerox will continue to operationally support customers with Full Service Maintenance Agreements (FSMA). Customers are encouraged but not required to upgrade to the latest software release. The Development team will no longer provide patch releases for identified software issues



# Xerox and Customer Responsibilities

# 6

## Pre-Installation Checklist

Prior to installation of the FreeFlow Web Services product, the Customer – working in conjunction with the Xerox Analyst – should complete a series of checklists that are designed to help identify site specific installation considerations. These checklists may be found in the “Xerox FreeFlow Web Services Installation and Planning Guide (IPG),” available from your local Xerox Analyst.

Details to be completed will typically include the following:

- Print output devices
- Typical jobs for each print device
- Paper sizes and weights for each print device
- Paper types
- Finishing requirements
- Network environment
- General information – contacts, phone numbers, etc.
- Web site details
- Job capabilities – in-house finishing options, for example
- Job handling – courier, electronic, etc.
- On-line price quotes

### **Note**

Pricing and cost information will be required in some cases in order to facilitate on-line job price quotes. This automatic pricing feature can be overruled / replaced by manually setting the price for each job

# Responsibility Matrix

Parameter	Customer	Xerox
General		
Provide an appropriate environment for the Web Services installation, including adequate space and appropriate temperature, humidity and power requirements	X	
Provide and configure the network infrastructure	X	
Provide and configure the Web Services server and third-party application software	X	
Install the Web Services software and ensure operability		X
Obtain and install an appropriately licensed version of Microsoft Office 2010/2013 Home, Business, Standard or Professional Edition (32 bit)	X	
Connect Web Services to the network, and ensure connectivity*	X	X
Configure the client hardware and software	X	
Ensure Print Buyer client connectivity and operability	X	
Define initial workflow model	X	
Provide support line for the Xerox customer (Print Provider)		X
Provide support line for the Print Buyer (Printer's customer)	X	
Perform software upgrades		X
Pre-installation Planning		
Identify customer implementation	X	
Identify Xerox implementation team		X
Determine space requirements	X	X
Determine electrical requirements		X
Determine network requirements		X
Site preparation	X	
Create floor plan		X
Make space as needed	X	
Make electrical setup as needed	X	
Make necessary site modification as needed	X	
Site inspection		X

System Installation Planning		
Install equipment		X
Configure equipment	X	X
Verify system operation	X	X
Test connectivity		X
System Configuration Planning		
Initial configuration of system		X
Additional configuration as needed		X
Training		
Confirm training groups: <ul style="list-style-type: none"> <li>• System administrators</li> <li>• Client users</li> </ul>	X	X
Develop detailed training plan: <ul style="list-style-type: none"> <li>• Standard and customized</li> </ul>	X	X
Perform initial training for Xerox customer (Print Provider)		X
Perform end-user training (Print Buyer)	X	
Schedule and perform standard training for each group	X	X
Schedule and perform any customized training identified	X	X

\* All planned connectivity paths via external data / leased lines, the Internet, and Intranet pathways through routers, bridges, switches, gateways, firewalls etc., should be tested and available prior to installation



# Customer Expectations Agreement

# 7

Check off the sections for which expectations have been reviewed:

- |   |  |
|---|--|
| <input type="checkbox"/> System Technical Requirements        | <input type="checkbox"/> Customer Software Support           |
| <input type="checkbox"/> System Software Requirements         | <input type="checkbox"/> Xerox and Customer Responsibilities |
| <input type="checkbox"/> Product-Specific Considerations      |  |
| <input type="checkbox"/> Customer Implementation and Training |  |

Special considerations or performance limitations identified by Xerox and agreed to by the Customer:

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I have reviewed and understand the product specifications for each of the modules that will be installed: (*signatures required*):

Customer \_\_\_\_\_

Xerox Sales Representative \_\_\_\_\_

Xerox Analyst Representative \_\_\_\_\_

Xerox Service Representative \_\_\_\_\_