eci | Printanista™ Workflow

INSTALLATION GUIDE

VERSION 8.0

eci. Printanista™ Workflow

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Contents

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1. About Printanista Workflow

Printanista Workflow is a leading edge set of tools that will improve document based workflow in the office. The web-based architecture allows you to easily install the solution, and get started quickly within the simplified management and reporting tools. The Workflow intelligent print management tools reduce the cost of document output, increase document security, and provide flexible cost recovery methods. The fully integrated, next generation Secure and Pull printing capabilities allow employees to release their secure print jobs from any smartphone or web-enabled computer.

About Printanista Workflow

New look. Same feel.

Printanista Workflow is the next generation of the User Management suite of products that have been used to track and manage printing in hundreds of organizations, all over the world.

If you were familiar with the User Management application in the past, you'll be happy to see that the installation and configuration of the application is still as intuitive as the previous versions. The menus, tools and overall administration of the system has been retained, so if you are upgrading from a previous version everything will be very familiar and seamless to navigate.

Version 8

Locally-connected printer page counts in Printanista Hub

New in this release is the ability to integrate directly with Printanista Hubto provide page counts from locally-connected printers to the Printanista Hub device management application. By enabling this integration, the DCA can include page counts from locally-connected devices, when it submits scan results to Printa Printanista Hub. Read this Help article for more information.

Remote Print Servicefor printing

from mobile devices

Printanista Workflow offers a turnkey solution to support printing from mobile devices. Now you can provide your mobile users with secured access to your print environment from their mobile devices. Users can print from anywhere with their mobile device, regardless of their ability to authenticate to your network.

For more information about Remote Print Service review this Help article.

Workflow Components

Workflow is client-server software that is comprised of the following components. During the installation, you can either install all components or choose only certain components to install.

- **Administration & Reporting** – The Administration and Reporting Tools are required for every server install. The installer will not prompt you to create a database if Administration and Reporting is not selected.

    > **Important:** If distributing components across multiple computers, you only need to install the Administration and Reporting Tools on one server.

    - **Administration & Reporting Tools** - The main web site where you can configure the product. Minimum memory usage is 150MB. This usage will grow depending on activity (specifically viewing large reports), and can use several hundred MB.

    - **Windows Task Service** – The service responsible for running all scheduled tasks, running reports and cleanup tasks. Expect a minimum memory usage from 50 MB to several hundred MB when running large reports. This service is installated automatically when the Administration & Reporting tools are selected to install.

    - **Database** – Requires Microsoft SQL Server or Microsoft SQL Express. If using Microsoft SQL Server , it must be installed before running the installer. Alternatively, the installer will install Microsoft SQL Express if the option is chosen during the install.

- **Secure Print and Client Services** – The web services component responsible for handling Client communication and securing jobs. Expect a minimum memory usage from 150MB to several hundred MB, depending on the number of users. For load sharing in large organizations, Print Audit recommends distributing the Client and Secure Services on more than one computer.

    - **Release Windows Service** – Responsible for releasing held jobs, monitoring network card readers and cleaning up expired secure jobs. Expect a minimum memory usage from 50MB to several hundred MB, depending on size and activity of released jobs. This service is always installed with the Client and Secure Services.

- **Client** – Workflow provides the option to use only the client application to track printing from every workstation, without any print server software. Or, when Workflow is deployed with server-only print tracking enabled, the client can be added optionally, to support custom field entry at the workstation, track printing from locally-connected (non-networked) printers. Read more about deploying Workflow with or without the client application here.

Licensing

Workflow offers five license types:

- **Suite license** – Enables all features and functionality of the client and server applications.
- **Embedded license** - Enables tracking of walk-up copies, fax, and scan activity, and secure release from the MFP panel (with supported manufacturers).
- **Analysis license** - Supports all features with the exception of secure printing, tracking with popups, and rules.
- **Printanista Hub license** – Allows local device integration with Printanista Hub, but does not track jobs or allow most functionality.
- **Trial license** - Workflow is enabled for 5 users for 15 days only. At the end of the 15 days, the software is considered 'unlicensed' and all functionality is disabled.

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> **Important:** After you install the software, you are required to provide a license key before you can access the Administration & Reporting tools. You can either enter an Analysis or Suite license key that you have already purchased, or you can request a trial license. If requesting a trial license, you must have an internet connection available to contact Print Audit and receive the trial key.

Refer to the Print Management End User License Agreement before activating your license.

License Behavior

Suite, Analysis, Workflow, and Trial Licenses

These licenses are applied per-user rather than per device. You can secure an unlimited number of devices; however, only the max number of licensed users will be tracked and allowed to release from secure queues unless the license has been configured to track unlicensed users. A user requires a license if they want to secure a job, track printing from a job, or login to the website. An Administrator can set a user account to 'Inactive' at which point their license seat is freed up for another user.

If licenses are exceeded, the user is denied login and jobs will not be tracked. A notification email will be sent to Administrators (if notifications are configured) once per day to indicate that a user is trying to activate but is denied due to the license restriction.

Embedded Licenses

The Embedded licenses are applied by device. One license is required for each MFP on which the embedded software will run.

In the event that there are insufficient licenses, tracking and secure release will become disabled. The MFP will continue to be functional, but no tracking or secure release will occur.

Activate a License

To view license status or to activate a license, do the following:

1. Select **Administration** from the ribbon.
2. Select **Settings** → **Licensing**.
3. The General and Status sections list details about the current license, including validity, expiry, allowed users, and the number of users licensed.
4. To activate the software online, you require the activation key and the company name. Click **Activate**, enter the key and the correct Company name for which it was purchased and then click **Activate** again.
5. If you cannot access the internet to activate the software, you must request a license file, plus the activation key. Click **Activate via File**. Provide the Host name and MAC address listed in this screen to ECi Software Solutions, Inc. or to the dealer/reseller of your choice. When you receive the files, enter the Activation key and enter the company name. Click **Browse** and navigate to the location of the provided license file, and then click **Activate**.

Additional Resources

In addition to this documentation portal, the following resources are also available:

Workflow Documents

- Workflow Brochure
- Workflow Sample reports
- Workflow Security and Technical Overview

Workflow Client Dealer Tools and Support Information

- Printanista Workflow Requirements Calculator
- Insight .jbs Upload Form
- Workflow Knowledge Base
- Product downloads

IDM Resources

Custom Brand Request Form

ICE download

System Requirements for Workflow

Before you install Workflow ensure that the server and client computers you plan to use meet the minimum operating and network requirements outlined below.

> **Important:** Microsoft Home and Microsoft Small Business Server operating systems are not supported for any components.

Server and Admin Tools

You can install the Printanista Workflow server components on computers running:

- Microsoft Windows Server 2012 R2 or later
- Windows 8 Professional or newer (64bit)

A full server installation requires at least 5GB of free space, to support the Workflow software, SQL Express, .Net 4.5.2 and IIS. By default, all secured jobs and logs are also stored on this server.

- .NET 4.5.2 is required, and will be installed if absent.
- IIS is required and will be installed if absent. See "IIS Web Server Support" on the next page below for details.

Windows Client Requirements and Memory Usage

You can install the Printanista Workflow Client Popup software on computers running Microsoft Windows 8 or later.

A full client installation will require approximately 10-20 MB of disk space.

The Client is comprised of two components: the Desktop Client and the Client Service.

- The Desktop Client required between 5MB - 20MB, also depending on activity.
- Client Service requires between 3MB - 10MB depending on activity.

No additional software is needed.

System Requirements for Workflow Client for Mac®

1. Workflow Client for Mac is supported on the Mac OS listed below. Please ensure you are running one of these versions before installing Workflow Client for Mac®. Click on "About this Mac" in the Apple menu, to determine which version of Mac OS is running on your workstation:

- MacOS 10.15 Catalina

  MacOS 10.14: Mojave

- MacOS 10.13: High Sierra

- MacOS 10.12: Sierra

2. Workflow Client for Mac also requires one (1) Windows-based PC to host the IUM Server and data-base. It is not possible to install Workflow to a network which does not have at least one Windows computer. Review the Windows System Requirements for Workflow for more information.

IIS Web Server Support

Workflow uses Internet Information Services (IIS) to communicate with devices and internally between Workflow components. The installation requires either the full version of IIS and the installer will determine if you have an existing IIS installation or not. If not, the installer will create a new site and application pool using IIS.

Networking Requirements

Printanista Workflow uses standard HTTP/SSL communication via ports 80/443 for web services by default.If these ports are unavailable, Workflow will use 6320/6231. However, you can change the communication ports if there is a conflict in your organization.

Workflow uses TCP/IP networking protocol.

Important: No network traffic is created until a print job is initiated. When securing jobs the size of the raw job can be anywhere from 2k to 400MB, depending on the size of the document. Once a print job has been sent to the printer, 10 to 20 KB of bidirectional network traffic is created per print job, regardless of the print job size

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Database Requirements

Workflow requires Microsoft SQL Server or Microsoft SQL Express. If using the full version, Microsoft SQL Server must be installed before running the installer. Alternatively, the installer will install Microsoft SQL Express if the option is chosen during the install.

> **Note:** Approximately 1MB of disk space per 2000 print jobs will be used.

The SQL Server database can run on the same computer where the server components are installed, or on an external SQL Server infrastructure. The installer will install SQL 2012 Express if Express is selected and not detected on the computer.

Workflow supports Microsoft® SQL Server® 2008 R2 (Workgroup, Standard, Enterprise) or later.

Web Browser Support

You can connect to the Printanista Workflow Administrative Tools via web browser. The following browsers are supported:

- Firefox 52 ESR and later
- Internet Explorer 11 and later

2. Installation Overview

Users installing Workflow must have Administrator rights, or you must use third-party tools that can install software in a locked down environment. Installing Workflow across a network requires knowledge of the network design, user rights and technologies available in your organization.

> **Important:** Various tools are supplied to aid in the deployment of Workflow software but these tools are intended to complement your organization's current desktop software rollout procedures. If you do not have an established way to deploy software in your organization, we strongly advise that you develop a software rollout plan for all desktop software before attempting to roll out Workflow Client software.

Workflow provides an installation wizard to guide you through the server, client, and optional component installs. There are several different types of deployment, and each method requires some planning prior to running the installation wizard.

Deployment Type	Description
"Simple Install" on page 20	All components will be installed on a single server. Refer to "Workflow Components" on page 5.
"Step by Step Install" on page 23 (Custom)	Choose specific components to distribute across multiple network servers.
"Installing Client Software" on page 30	Install only the client software on the selected computer. The Client Services must already be installed on a network server before you can run this deployment type. For instructions to install the client software silently across the network on multiple clients, refer to "Client Silent Rollout" on page 30.
Migrate from PA6 to Workflow	Workflow may be installed over an existing Print Audit 6 installation and the data can be migrated using the **Database Migration Tool.** Please contact Technical Support to request the Migration Guidelines document and Migration Tool.

Prerequisites

- Before installing Workflow, verify the "System Requirements for Workflow" on page 8.
- Install Workflow directly on the system hosting the printer(s) (i.e. the print server).
- Confirm that all printers are configured correctly and are in working order before installing the software.

Note: Refer to the Release Notes for potentially important installation information not contained in this document.

Installation Workflow

Perform the step-by-step installation workflow as follows:

1. Confirm "System Requirements for Workflow" on page 8
2. Install Workflow server components using the "Simple Install" on page 20 or "Step by Step Install" on page 23.
3. Perform "Initial Configuration" on page 40.

Important: If you require multiple print servers to load balance or distribute printing within your organization, refer to the online help for further information before proceeding.

4. Roll out **Client Software**.
5. **Test client, printing, and remote access.**

Server Print Tracking vs Client Print Tracking

Workflow provides job track and secure print functionality with or without the use of the Workflow Client Application. Choosing whether or not to deploy the Client Application will depend on your requirements and print management goals. Both methods have a variety of benefits. Below is a summary of the major differences.

Full client deployment

Workflow has traditionally supported a full client deployment method of print tracking. With this method, the Workflow Client application is deployed to all desktops, and each job is tracked from the workstation.
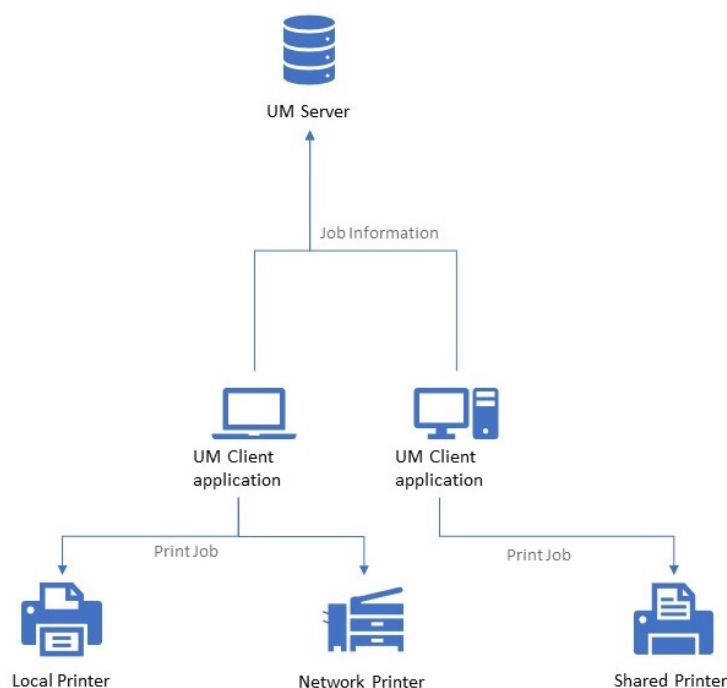
There are a number of benefits to choosing print tracking from the client:

1. **Additional print data collection**. With client-side print tracking, Workflowis able to retrieve print job details which are only available from the workstation, and can not be tracked at the server level. Additional print data that the Printanista Workflow client will collect include:
   a. Job application type (MS Word, Outlook, Chrome, etc)
   b. Locally connected printers (non networked USB printers) and any print job output through those devices.
2. **Rules Messaging.** The Printanista Workflow Client application provides the ability to configure pop-up messages for users, when using print rules. These pop up messages are used to notify users at the workstation about print rules policies, and help to encourage adherence to your organization's print policies.
3. **Custom Field Entry**. When the use of custom fields is required at the workstation, for the user to provide billing or cost allocation information for print jobs, the client application provides the means to enter that information at the time of print.
4. **User job costs and print account allocation data**. The client application can be configured to provide additional information to users at their workstation, including declining balances based on costs, or pages.

Server only deployment

When print tracking occurs at the server level, only the server software components are required, and no client software is deployed. The jobs are tracked from the print server, as opposed to from each client workstation.
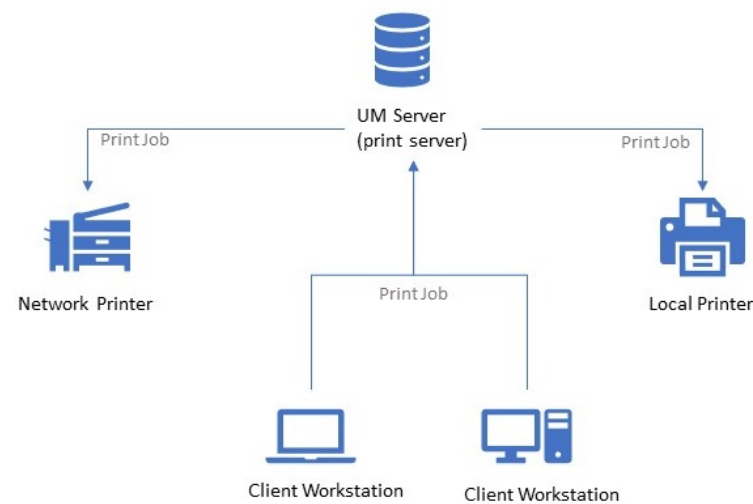
Some benefits to a server only deployment include:

1. Simple site assessments
2. Straight-forward secure printing implementations
3. Silent print tracking and data collection

Server and client deployment

A combination of server and client software is also supported, in the event that a server deployment requires any of the client functionality. An example of this might be where a server-only deployment has been used for the purpose of a 30-day environmental assessment, and then the assessment reveals an opportunity to provide a secure print solution, or a rules-based printing in a permanent, on-site, print management solution. In this case, the client software would help provide advanced feature to support secure printing and print rules messages at the workstation.

Client tracking vs server tracking checklist

Function	Supported with Server Print Tracking	Supported with Client Print Tracking
TECHNICAL FEATURES		

Active Directory Support	✔	✔
Citrix Server Support	✔	✔
Centralized network deployment	✔	✔
Centralized data collection	✔	✔
Centralized administration	✔	✔
Local/LPT/Com/USB print tracking	✘	✔
Scheduled imports	✔	✔
Color/mono tracking at the page level	✔	✔
Track multiple page size with a job	✔	✔
Specify which user to track	✔	✔
Specify which application to track	✘	✔
Specify which users or printers to ignore	✔	✔
Specify applications to ignore	✘	✔
SECURITY FEATURES		
Data encryption	✔	✔
Individual user tracking options	✔	✔
User security profiles	✔	✔
Document name tracking	✔	✔
Multiple authentication methods	✔	✔
REPORTING FEATURES		
Print job level reporting	✔	✔
Print volume reporting	✔	✔
Scheduled report delivery (email)	✔	✔
Job editing and deleting	✔	✔
User and printer groups	✔	✔
PRICING FEATURES		
User and printer level pricing	✔	✔

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Application level pricing	✕	✔
Track cost by user-defined paper size	✔	✔
Track cost by square meter/linear feet/square inch	✔	✔
Override pricing with print rules		✔
Pricing by printer function	✔	✔
Color and mono per paper size pricing	✔	✔
Cost modifiers	✔	✔
Customizable decimal place setting	✔	✔
ANALYSIS FEATURES		
Automatic user/printer/computer inventory	✔	✔
Track duplex printing	✔	✔
Store detailed information about the print device	✔	✔
Silent print tracking	✔	✔
RULES FEATURES		
Active print job redirection		✔
Maximum pages per print job (by user, printer)		✔
Maximum pages per print job (by application)		✔
Soft or hard print volume limits		✔
Hard print volume limits		✔
Limits based on job cost, number of pages, number of copies		✔
Limits based on user or computer		✔
Limits based on application		✔
Limits based on any color or number of color pages		✔
Enforce multiple page documents to 1 sheet		✔
Enforce duplex printing		✔
Restrict output by document name		✔
Trigger emails by alert conditions		✔

Provide print messages at the workstation with rules information	✕	✔
COST RECOVERY FEATURES		
Workstation popup for billing entry	✕	✔
Declining account balances by cost or pages	✔	✔
1-5 custom input fields for billing entry	✕	✔
Linked custom fields	✕	✔
Restrict custom field access by printer or user	✕	✔
Permit users to override costs	✕	✔
Batch jobs	✕	✔
Snooze jobs	✕	✔
Add validated codes on the fly	✕	✔
Permit the use of non-validated codes	✕	✔
User PIN codes	✕	✔
Interface to accounting software	✔	✔

Setting up Workflow for Server Deployment

With a server-only deployment, job tracking and securing can occur with or without the deployment of the Workflow Client application. It is important to note, without the client application, Workflowpopups or notifications can not be displayed at the workstation. Users will not be able to use custom fields, rules notifications, or be notified of jobs being secured. If that functionality is required, the Client Application can still be deployed to any workstations which require the use of custom fields and rules.

Before you deploy Workflow to a server only, and not utilize the Workflow Client application, please review the following instructions.

Server-only setup steps

Print Server

Ensure that at least one print server is included within the deployment, and that the Print Server role has been added to each print server being used to host printers.

Any printer that is to be managed by Workflow must be setup as shared printers on the server. Workflow connects to the printers via the server print queue. Printers that are connected to directly by user (ie. direct IP) are not visible to Workflow when it has been deployed to the server

only. If direct IP printing, or locally-connected USB printers, must be tracked by Workflow, then the Workflow Client Application must also be deployed.

Printers are added to each print server, and access to the printers can be configured for users/workstations by the administrator. In this way, it is possible to limit access to specific printers (ie. prevent users/workstations in your Accounting group from connecting to printers outside of their physical area).

Follow these steps, when adding printers:

1. Uncheck the 'Render print jobs on client computer' in the 'Sharing' tab of the Printer Properties dialog.

2. Optionally Check the 'List in the directory'.

3. In the Advanced tab, Select 'Spool print documents so program finishes printing faster then select 'Start printing after last page is spooled'. This is required for securing print job. If the print job is allowed to start printing immediately, the print job will be secured BUT it will also print.

Client Workstation

Shared printers can be added to workstations but it is advisable to disable sharing from the workstation, because these printers can not be secured. It is recommended to share printers only from the print server.

Direct IP Printing

When connecting directly to any device via its IP address, all printing bypasses the server entirely. Therefore, when Workflow is installed with a server-only configuration, any printing that is sent via direct IP connection will not be tracked by Workflow because those print jobs never reach the server.

To prevent workstations from connecting directly to the device, your network administrator will need to disable the network broadcasting functionality for each of the devices in the network. In a controlled environment using AD, you can use a group policy to prevent the addition of devices that are not hosted on a print server. In environments without managed AD, each device will need to be configured to prevent direct connections.

Workflowsetup

Ensure print server(s) are configured. This can be done before or after Workflow is installed.

If Workflowhasn't been installed, install and configure it for the environment. Set up one server with the full Workflow Administration tools and ensure that every print server has Workflow Client Services installed. Add each of the remote servers to the primary Workflow Admin instance on the site. Follow these links for more information about installing the Administration Tools and Client Services.

Queue setup

Once Workflowis up and running, every shared device needs to be added as a queue. Then either configure the queue as a Passthrough or a secure queue. If the print server isn't the same server as the Workflow server, a ClientServices install will need be installed on the print server so that the queues can be created and exposed via Workflow. More information on queue types.
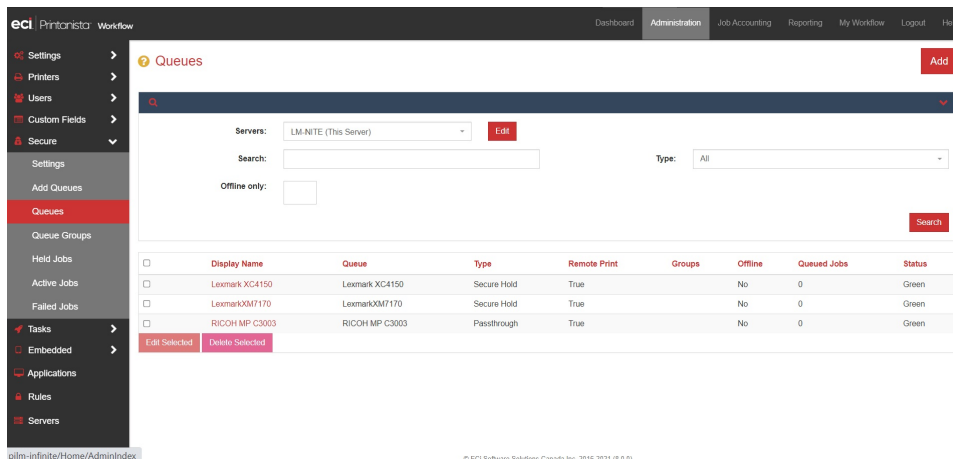
Enabling server-side tracking and secure print

In the Servers tab, enable Monitor spooler job to enable server-side tracking and secure print. Turning on Server-Side Tracking and Secure was renamed in v7.4.x. from 'secure spooler jobs' to 'Monitor Spooler Jobs' in the "Servers" >> <Server Name> >> section. Turning on Monitor spooler jobs will enable server-side tracking and secure. This will need to be enabled for each ClientServices server that's deployed in the environment.
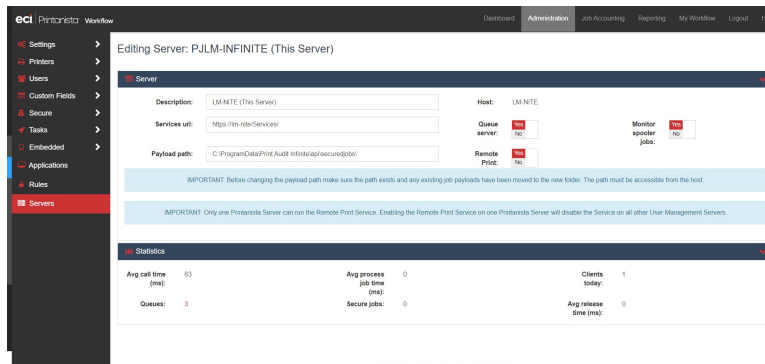
Notes

Device Drivers

It is important to install manufacturers universal drivers on the workstations and server. The presence of these drivers will ensure the accuracy of the job tracking and ensure reliable print release.

Client Tracking vs Server Tracking Differences

Server-side job tracking functionality is not identical to the functionality of the Workflowclient application. Without the Workflow Client application, there are differences with collected data, and with the print rules functionality. For a complete list of differences, please review this chart.

Prepare the Network and Database

Although the Workflow installation routine is very simple, you must perform some planning prior to install:

- Determine the installation destination for each of the components. As a general guideline only, if you have 500 users of less, you can likely install all components on one computer (Simple install). Otherwise, you may need to install the Administration & Reporting Tools and Database on one computer, and install the PAI Client and Secure Services on another computer (Step by Step install).
- Before you deploy Workflow on the network, ensure that you have Administrator privileges on all machines that must be installed and configured. In addition, you must have the 'sa' password or have an admin account on the authentication system you will use (LDAP, Windows Peer to Peer, Windows NT).
- Workflow uses ports 80/443 when handling Client communication and securing jobs. If the installer detects that these ports are already in use, 6320/6321 are used instead. Alternatively, you can choose other available ports as needed. Ensure you confirm the existing port assignments on your network to prevent conflicts prior to installing Workflow.
- If using an existing SQL Server database, you must have an Administrator login account to access the database.

Simple Install

Select this install type within the installer to place all Printanista Workflow components on the same server.

Note: You can download the installer from the ECi Software Solutions, Inc. website.

Simple Install Components

The Simple Installation type installs all Workflowcomponents on the same server, including:

- **SQL Express** – Installs the SQL 2012 Express software (if an existing 'PAINFINITE' instance is not found) and creates a new database instance named 'PAINFINITE' by default.
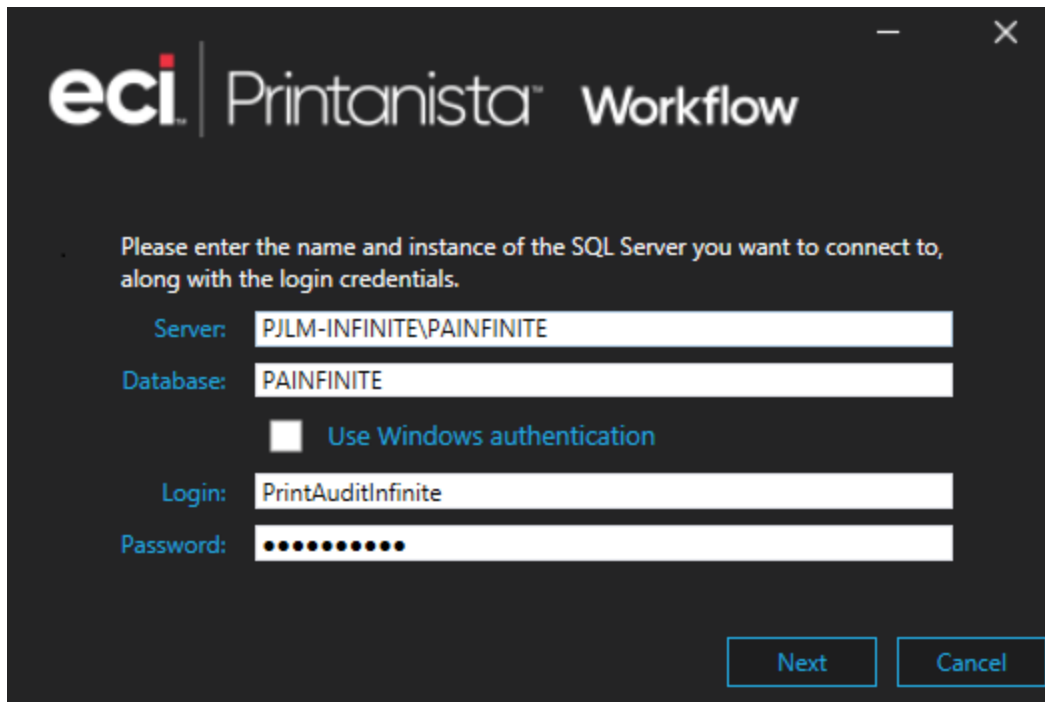
- **Administration & Reporting Tools** - These tools are the primary site you will access to manage and configure the installation.
- **Client & Secure Services** - These services are required to implement secure print release and to support the Workflow Client that you will later deploy to client workstations.
- **Client software** - This software can be deployed on all client workstations from which you want to track printing or implement secure print release.
- **Internet Information Services (IIS)** – Web server that serves requested HTML pages . If not detected on the computer, the full version of IIS is installed and a new site and application pool using IIS is created on the computer.

Install Procedure

Click 'Next' between each step below to advance through the installation wizard. When installation of the files is complete, the configuration wizard will launch a browser to walk you through initial configuration.

Tip: If you have previously created an Workflow database, you have the option of connecting to the database during the install. Ensure you have the correct credentials to connect to the database if you intend to use the existing database.

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1. Confirm that your computer meets the "System Requirements for Workflow" on page 8
2. Launch the installer.
3. Accept the license agreement.
4. Choose '**Simple**' as the install type.
5. Browse to the folder where you want to install the software.
6. Confirm the installation folder and the installation details and then click '**Install**'.
   - If Workflow detects an existing Workflow database, the Server and Database details are automatically completed. If you prefer to create a new database, enter a name for the SQL server database that will be created. By default, the database name is 'PAINFINITE'.

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- To create a new database, you must have the sa password for the server or your login must be a SQL Administrator. Enter the name of the database you want to create. Check the 'Overwrite if already exists' option to delete the existing information (if found) with the new database. You must enter the correct password for the SQL server account. If you don't know the password, you can enter a new password, and enable 'Reset account password' to rest it. However, if you do so, other Print Audit applications using this database will no longer be able to connect using the old password. Click 'Create' to continue.
    - If the database was created successfully, you will see a message indicating it is done. Click the **Done** button to close the window.
    - If there was a problem (i.e. the same database name was used previously), go back and fix the problem before continuing.
7. If Workflow successfully connects to the existing database, click **Save** to proceed.
8. At the 'Installation Finished' message, click **Finish** to close the installer. The configuration auto-matically launches a window in your default web browser to begin initial configuration.

Initial Configuration

Depending on the components you chose to install, a web browser may be displayed to guide you through basic configuration. You will need your license key (if purchased) or you can request a trial license.

Note: If the Configuration Wizard Welcome screen is not displayed, you can access it by going to the following URL: http://<servername>/Setup/NetworkSetup

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Refer to "Initial Configuration" on page 40 for help as you work through the initial product con-figuration.

Step by Step Install

Select this install type within the installer to distribute the Printanista Workflow components on network servers.

For example, if you are installing the server software on a separate computer than the database, or if you need to install more than one print server, follow the Step by Step install to choose specific components only.

Install Steps

Click 'Next' between each step below to advance through the installation wizard. When installation of the files is complete, the configuration wizard will launch a browser to walk you through initial configuration.

1. Launch the installer.
2. Accept the license agreement.
3. Choose **Step by Step** as the install type.
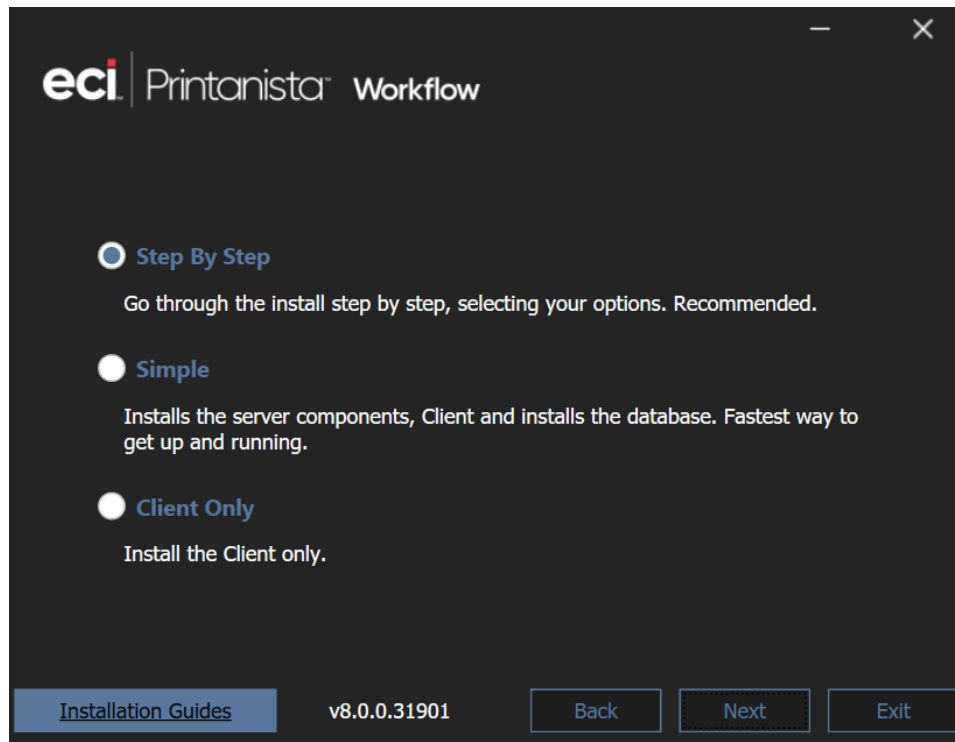
4. Browse to the folder where you want to install the software.
5. Confirm the default installation folder or click the ... button to select a different location for the files.
6. Choose the option(s) you want to install:
   a. **Administration and Reporting** – These tools provide the management and configuration interface for Workflow and should be installed on only one server in the environment. If you choose this option, you must also install Secure Print and Client Services by default.

b. **Secure Print and Client Services** – These services are required to implement secure print release and to support the Workflow Client software that you will later deploy to client workstations.

c. **Client** – This software can be deployed on all client workstations from which you want to track printing or implement secure print release. If you choose this option, ensure all previous versions of the client are already removed from the current computer. Note that you can perform a silent client rollout using the simple 'paiclientinstall.ms'i file supplied in the 'Redist' folder in the Workflowinstallation path. See Installing Client Software for instructions.

7. If you selected 'Administration and Reporting' or 'Secure Print and Client Services', Internet Information Services (IIS) is required. IIS is automatically installed if not detected on the server.

8. Identify the database. If you've already installed Workflow in your environment, you can select 'Use an Existing Database'. Otherwise if this is your first time installing, select 'Create a New Database'. This option will install the SQL 2012 Express software (if an existing database instance called 'PAINFINITE' is not detected) and creates a new database. By default, the database name is 'PAINFINITE'.

9. Review the list of items that will be installed at the 'Install to' path. Click **Install** to complete the wizard.
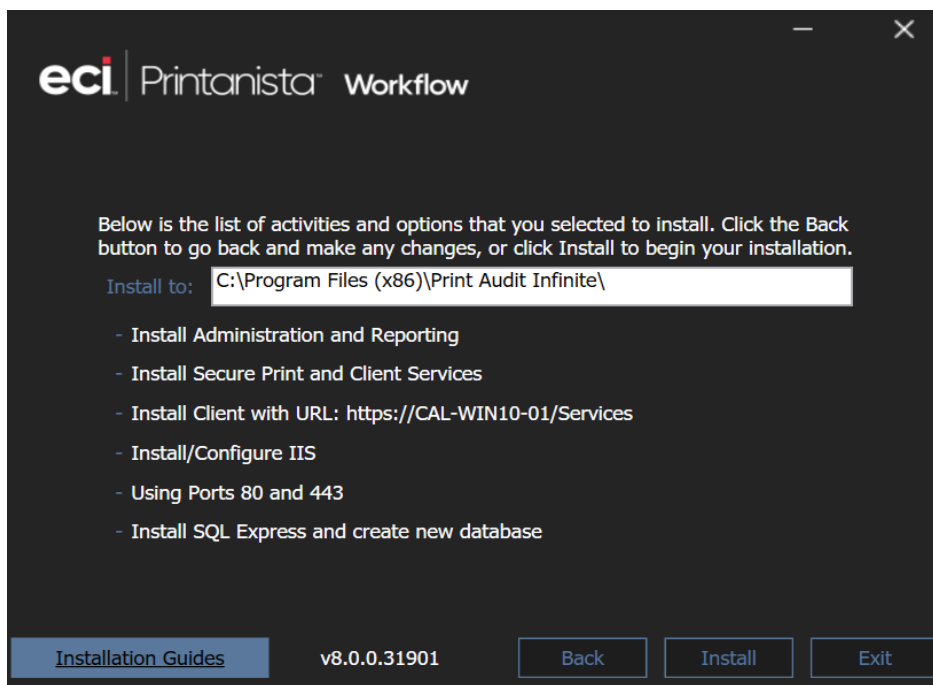
Note: Depending on your selections, the installation may take a few minutes to extract the files and update the database. The installer displays an 'Updating' message while it is working.

a. If you elected to connect to an existing database, verify the access credentials and then click **Save** to continue the installation.

b. To create a new database, you must have the sa password for the server or your login must be a SQL Administrator. Enter the name of the database you want to create. Check the 'Over-write if already exists' option to delete the existing information (if found) with the new data-base. You must enter the correct password for the SQL server account. If you don't know the password, you can enter a new password, and enable 'Reset account password' to rest it. However, if you do so, other Print Audit applications using this database will no longer be able to connect using the old password. Click 'Create' to continue.

   ■ If the database was created successfully, you will see a message indicating it is done. Click the **Done** button to close the window.

   ■ If there was a problem (i.e. the same database name was used previously), go back and fix the problem before continuing.

10. At the 'Installation Complete' message, you can click on the link provided to launch the PAI Web Administration Tool and perform initial configuration immediately, or you can click **Done** to close the installation wizard and complete the configuration at a later time.

Initial Configuration

Depending on the components you chose to install, a web browser may be displayed to guide you through basic configuration. You will need your license key (if purchased) or you can request a trial license.

Note: If the Configuration Wizard Welcome screen is not displayed, you can access it by going to the following URL: http://<servername>/Setup/NetworkSetup.

Refer to "Initial Configuration" on page 40 for help as you work through the initial product con-figuration.

Installation of Client Services

Additional client services will be required in larger environments, to distribute load, or to support secure printing with multiple print servers. The steps below will walk you through the process to:

- Install additional client services
- Replicate the site key between primary and additional client services systems
- Create a server entry for additional client services

Installation Steps

Click 'Next' between each step below to advance through the installation wizard. When installation of the files is complete, the configuration wizard will launch a browser to walk you through initial configuration.
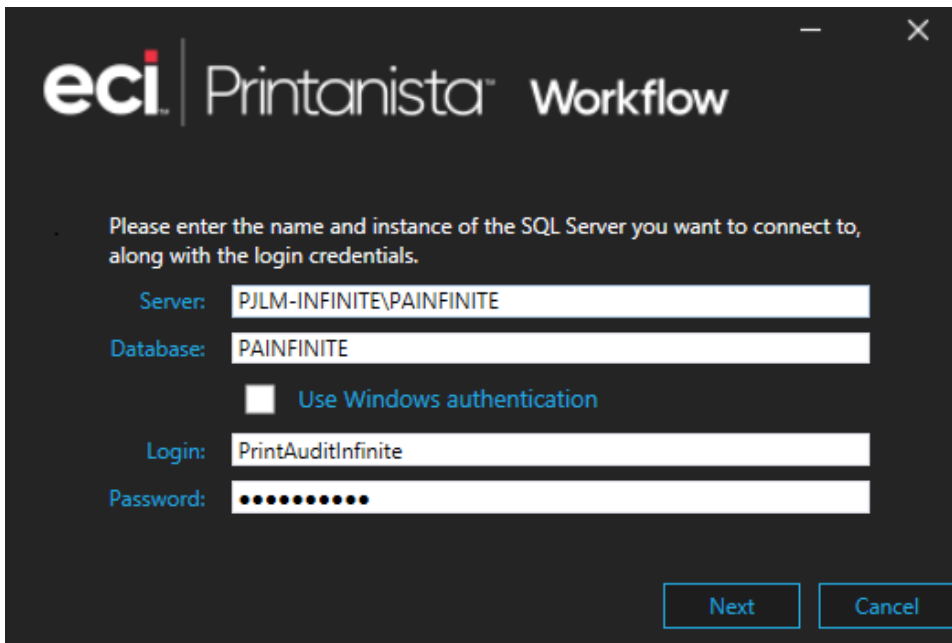
1. Launch the installer.
2. Accept the license agreement.
3. Choose **Step by Step** as the install type.
4. Browse to the folder where you want to install the software.
5. Confirm the default installation folder or click the **...** button to select a different location for the files.
6. Choose only the Secure Print and Client Services – These services are required to implement secure print release and to support the Printanista Workflow Client software that you will later deploy to client workstations

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7. The **Secure Print and Client Services** option requires Internet Information Services (IIS). IIS is automatically installed if not detected on the server.

8. Review the list of items that will be installed at the **Install to** path. Click **Install** to complete the wizard.
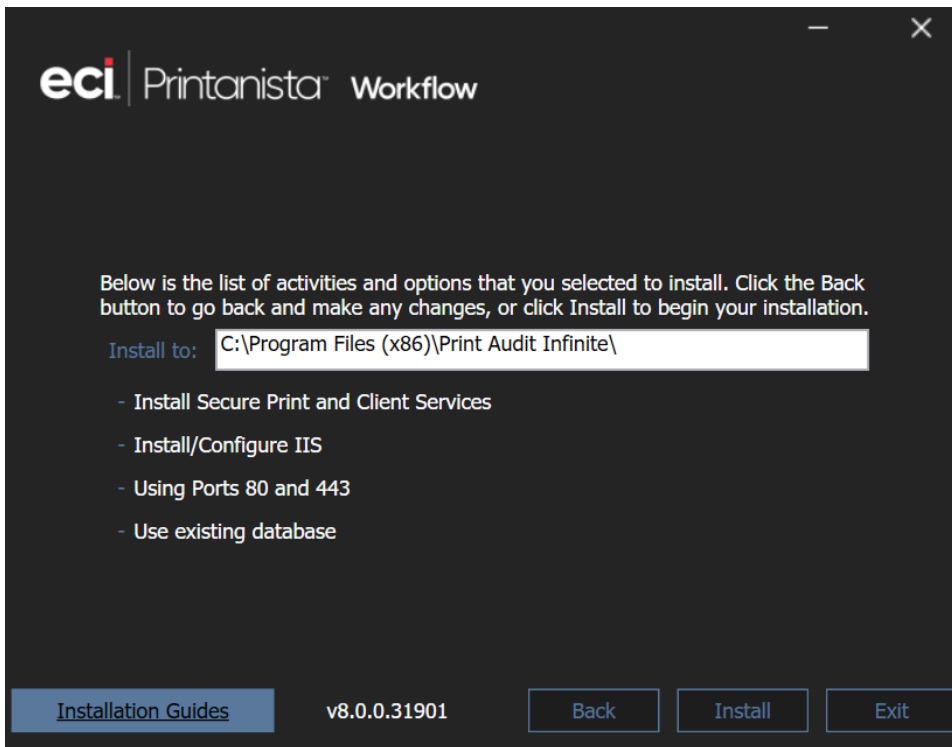
9. Identify the database created during the Primary server install. By default, the database name is 'PAINFINITE'. Click **Next**.

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10. When installation completes click **Done** and proceed to replicating the site key.

Replication of Site Key

1. From the original server navigate to the site key (sitekey.config). The default location is C:\Program Files (x86)\Print Audit Infinite\api

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Note: If Windows administrative shares are enabled navigate to \\server-name\c$Program Files (x86)\Print Audit Infinite\api\ from the additional server

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2. Copy the site key to the same location on the additional server(s). When prompted replace the file in the destination.
3. Restart the website on the remote client services system(s) through IIS Administration console

Creation of Server Entry

1. After completing the installation of additional **Secure Print and Client Services** and replication of the site key from the primary server, navigate to the Printanista Workflow Administration interface (i.e. https://[serverhostname]).
2. Authenticate to Printanista Workflow and navigate to **Administration** -> **Servers**. Click **Create**.
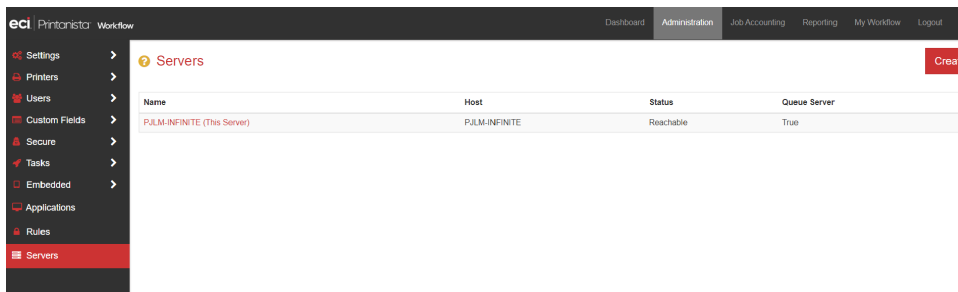
3. Populate the Description and additional client services URL. If applicable, enable the **Secure Server** option and provide a Payload Path for secure jobs. Click **Create**. ***Note: Default payload location is C:\ProgramData\Print Audit Infinite\api\securedjobs*

3. Installing Client Software

There are several methods available to install the Workflow Client software:

- **Install the Client on a Single Computer** - As instructed below, you can run the Client installer on a single client computer. You must have already installed the Client Services on another computer and can connect to it via <computername>/Services. If you are installing the Client on the same machine as the Print Audit services, you can choose the Simple method install which includes the client software in the install.

- **Silent Client Rollout** - When you install the Workflow services, the installer automatically places a "Redist" folder in the installation path. The msi file in this folder can be used via GPO or another existing install solution to silently distribute the file to multiple client computers.

Important: If the installer detects Client software already installed on the computer, the installer behaves differently depending on the version detected. Refer to "Install the Client over a previous version" on the next page for details.

Client Silent Rollout

You can perform a silent client rollout using the simple 'paiclientinstall.msi' file supplied in the 'Redist' folder in the Workflow installation path.

- If using msiexec, you can set installation parameters via the command line. If running from the command line, property names must be formatted in all caps.

- If using a different install solution, you can also specify these parameters in a file named 'package.ini'. When running the client install silently, the installer will look for the 'package.ini' file and use the parameters in that file. The parameters must be defined within a [Properties] section in the ini file. For example:
  ```
  [Properties]
  ServicesUrl=https://SomeComuter/Services
  ```

Silent Parameters

- **ServicesUrl** - The URL the Client will point to for Client Services after it is installed.
- **InstallDir** - The directory the Client will install to on the client computers. If not provided, the Client will install to the default Program Files folder. This option only impacts new Workflow installs and does not affect upgrades.
- **SuppressReboots** - All reboots will be suppressed, unless older Clients are installed. A value of 1 will Suppress all reboots, 0 will not. If not provided defaults to 0. See the section on existing client installs for more information.
- **SuppressAddRemove** - If set to 1, no information will be created in Add/Remove programs for the Client. If 0 will install normally. If not present defaults to 0. This option only impacts new Workflow installs and does not affect upgrades.

- **SuppressShortcuts** - If set to 1, no Windows Start Menu shortcuts will be created for the Client and supporting tools. If 0, shortcuts will be created normally. If not present defaults to 0. This option only impacts new Workflow installs and does not affect upgrades.
- **IgnoreDisconnected** - If set to 1, and the Client has not been installed, a local settings file is created that instructs the Client to ignore jobs when unable to connect to the Client Services instead of disallow. If set to 0, the Client will disallow jobs and display a message to the user printing. This setting only applies until the Client connects at least once to Client Services, at which point it uses whatever option an Admin has defined.

Install the Client on a Single Computer

Ensure all previous versions of the client are already removed from the current computer before performing this install.

1. Launch the installer.
2. Accept the license agreement.
3. Browse to the folder where you want to install the software.
4. Confirm the installation folder and the installation details and then click '**Install**'.
5. In the Services URL field, enter the fully qualified address where the Client Services option is already installed. The client will use this name or URL to communicate with the Client web services to track and secure jobs. By default the URL is equivalent to "https://<COMPUTERNAME>/Services". Alternatively, if Client Services are communicating on a port other than the default 443, enter '<Computername>:<sslport>' substituting the configured port number for 'sslport'.
6. Confirm that you want to complete the install.
7. Click **Exit** to close the install wizard.

Install the Client over a previous version

If the Client is already installed on the target computers, the Client installer behaves differently depending on the version:

- **PA6 and Secure Client** - If an install of PA6 or Secure is already installed on the computer, the Client installer will automatically remove the old versions and prompt the user for a reboot. Note that they may be prompted twice if both PA6 and Secure are installed. If the Client is installed silently, the computer will reboot automatically with no prompts. The SuppressReboots package.ini option will not stop the reboot in this case.
- **Older Version of Workflow Client or User Management** - The installer will update the computer to the latest version. If it is run silently it will update the ServicesUrl if defined in the package.ini, other than this and SuppressReboots other properties are ignored.
- **Newer version of Workflow Client** - When installed silently, there is no change. If not installed silently, the user will be informed that it is not possible downgrade to the older version. You must uninstall the old software first, and then run the installer again.
- **Same version of Workflow Client** - If not silent, will display a Repair/Remove option. If silent, nothing will happen unless REINSTALL=ALL and REINSTALLMODE=vomus are defined on the command-line, if so a Repair will take place.

Note: The Client Status/Deployment tool includes an option for "Run Repair if same version installed". It creates a property in package.ini called SameVersionRepair. If detected, the Client Status/Deployment tool will automatically run a repair if the same version is detected; otherwise there is no impact.

4. Installing Workflow Client for Mac® Software

Before planning your Workflow Client installation, please review the important information below.

System Requirements for Workflow Client for Mac®

1. Workflow Client for Mac is supported on the Mac OS listed below. Please ensure you are running one of these versions before installing Workflow Client for Mac®. Click on "About this Mac" in the Apple menu, to determine which version of Mac OS is running on your workstation:

- MacOS 10.15 Catalina

   MacOS 10.14: Mojave

- MacOS 10.13: High Sierra

- MacOS 10.12: Sierra

2. Workflow Client for Mac also requires one (1) Windows-based PC to host the IUM Server and database. It is not possible to install Workflow to a network which does not have at least one Windows computer. Review the Windows System Requirements for Workflow for more information.

Prerequisite: Installation to a Windows PC, for Networks not yet running Printanista Workflow

For new installations of Printanista Workflow, you must install to at least one Windows computer before installing to your Mac computers. The database and administrative tools required to use Printanista Workflow will only operate on Windows-based computers.

If you already have Printanista Workflow configured and running on one or more Windows PCs, skip to the next section.

The basic steps required to set up Printanista Workflow on a Windows computer are outlined below.

1. Install Printanista Workflow to at least one Window-based computer, to install the Administrative and Reporting tools along with the Client Services (and optionally a Windows Client you can use for testing). We recommend using the **Quick Install** option in thePrintanista Workflow installation. Please review the Windows System Requirements for more information.

2. Configure Printanista Workflow using the Administration website. This allows you to setup how you want the Mac client to behave and what information you want users to enter before they can print.

3. Test the configuration, using the Printanista Workflow Windows Client client you installed in Step 1, or an existing IUM desktop client. Ensure that printing is tracked correctly and that you configured the software to your specifications.

For complete information on installing Printanista Workflow please refer to the Printanista Workflow installation instructions.

Upgrading from Print Audit 6 Client for Mac

We recommend that you completely uninstall previous versions of the Print Audit 6 client software from your Mac before installing Workflow Client for Mac on it.

Perform the Workflow Client for Mac Installation

- ■ **Install the Client on a Single Computer** - You can run the Workflow Client for Mac installer on a single client computer. You must have already installed Printanista Workflow to at least one Windows computer, as instructed above.
- ■ **Installing to a network for Mac computers** - Once everything is working correctly on one computer you may want to install Workflow Client for Mac to all of your Mac computers.

Install the Workflow Client for Mac® on a Single Computer

We recommend that all previous versions of the client are already removed from the current computer before performing this install.

If you previously installed and configured Workflow on your Windows computer or just installed it as described above, you can now install Workflow Client for Mac to the Mac computers on your network.

1. Ensure you are logged into an account with administrator privilege
2. Download the latest version of Workflow Client for Mac from the Print Audit web site at http://www.-printaudit.com/ . Double-click on the downloaded Disk Image (.dmg) file to open it in the finder.
3. Double-click on the .pkg file to start the installation.
4. Review the Read Me file
5. Accept the License Agreement
6. Select the location on your hard disk where you want to install theWorkflow Client for Mac.
7. Enter the login and password of a user account with administrative privileges. If your account has administrative privileges for the Mac, use your password. The Workflow Client for Mac installer requires administrative privileges in order to integrate with the printing system software included with your Mac.
8. Enter the hostname or IP address of the Client Services URL that was configured for thePrintanista Workflow server software.

a. The default format for the URL should be: https://<Location>/Services/ where <Location> is the IP address or hostname of the machine running the Printanista Workflow client services.

b. If the client services are communicating on a port other that the default port of 443, enter the URL using the following format: https://<Location>/<Port>/Services/ where <Port> is the alternate HTTPS port. Typically, the alternate port is 6321.

Important: During the final phase of the installation, the Printanista Workflow Configuration utility is displayed. You must enter either the hostname or IP address of the Client Services URL that was configured when Printanista Workflow was installed and set up on the Windows computer. The Workflow Client for Mac will use this hostname or URL to communicate with the Printanista Workflow server to track jobs.

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9. Leaving the **Turn on debug logging** unchecked should be sufficient for most environments. This is provided here as a convenience in the event that you need to trouble shoot an issue with our Support Team.

10. When complete, click the **Save Settings** button. The Printanista Workflow Configuration app will attempt to connect to the service URL provided, to confirm that it is reachable.

To re-configure Workflow Client for Mac, authenticate as an administrator and double click the Printanista Workflow Configuration application in the Printanista Workflow application folder.

Installing the Workflow Client for Mac® to a network of Mac computers

Once you have successfully installed the Workflow Client for Mac to one computer, and are confident that everything is working correctly, you may choose to install the Workflow Client for Macto all of the Mac computers on your network. If you have only a few Mac computers you can install the software on each computer individually.

For networks of more than a few Macs, you may choose to use a product like Apple Remote Desktop to remotely install Print Audit IUM Client for Mac to all of your computers.

Apple Remote Desktop is recommended for the deployment of theWorkflow Client for Mac to a network of computers running Mac OS X 10.11. You can remotely install, upgrade and uninstall theWorkflow Client for Mac using Apple Remote Desktop. However since the installer package is a standard Mac OS installer package, you can also roll out the Workflow Client for Mac using any other Mac network deployment tool that supports this standard.

Apple Remote Desktop is network management software created and sold by Apple. To obtain Apple Remote Desktop, contact your Apple reseller or order it directly from Apple.

This document assumes you are familiar with the basic operation of Apple Remote Desktop. For more information on Apple Remote Desktop, consult Apple's web site at http://www.apple.com/remotedesktop/ or read the Administrator's Guide at http://images.apple.com/remotedesktop/pdf/ARD3_AdminGuide.pdf

Installing Workflow Client for Mac® for Secure Printing

Before you install Workflow Client for Mac for use with secure printing, review the instructions and information below, to ensure your implementation is successful.

Setting up Workflow Client for Mac® for Secure Printing

To ensure a smooth setup of secureprinting support, the following steps must be followed.

It is highly recommended that the secure functionality be tested before full deployment, as driver configuration and device setup on each Mac workstation will significantly impact the ability for Printanista Workflow to capture and secure a print job.

1. Workflow Client for Mac®v7.1.0 or later is required.
2. Install the printer on the MacOS computer using the printer manufacturer's driver. Do not use the 'Generic Postscript' or 'Generic PCL' driver. It is recommended to add the printers using IPP, LPD, or HP Jetdirect-socket protocols. When installing Windows Server Printers, follow the instructions mentioned below in the section titled Print Drivers.
   a. Open the **Use** dropdown.
   b. Choose **Select Software...** from the dropdown.
   c. Search for the correct printer model. If the appropriate driver is not listed for the device you are adding, contact the printer manufacturer for the correct driver and install it.
3. Install and Configure the printer on the Windows server hosting the UM server/ Client Services.
   a. The driver for the printer should be Postscript when possible.
4. Setup the Secure Queue for the printer in UM.

- The printer should get added to UM if its not already in the list of printers.
- The printer should be listed as an automatically created printer.
- The queue should create a mapping to the printer

5. Print to the printer installed on the Mac OS (in Step 2)

- The client should ask for any popup details if it's so configured.
- The client should display that the document was successfully secured.

6. Validate the document is listed under the **My Print Audit** >> **Held Jobs** list.

7. Release the document to the printer to ensure that the driver settings are compatible.

Further information and Troubleshooting

Due to the tight integration between the Workflow Client for Mac® and the MacOS printing sub-system, there are some common situations that can easily be resolved by the user or system administrator.

Device matching

Some devices may not secure correctly due to their inability to match to an already existing device in Workflow. For example, Windows will not report device properties identical to those reported from a MacOS. Device properties may even report differently between diifferent Mac OSes.

Print Drivers

When adding a Windows Server printer it is important that the shared printer in Windows and the Mac workstation support the same printer language. A driver for a device on the Mac might only support Postscript. Therefore the device driver on the Print Server must also use a Post-script driver. Mixed printer languages will produce unreliable results. Non Postscript printers on the server must be tested to determine whether a job submitted from the Mac client will both render successfully, and release.

Generic PCL or Postscript drivers are supported for tracking and secure print, however all pages from these drivers are tracked as monochrome, regardless as to whether or not the out-put was color.

If a manufacturer's print driver reports incorrect page counts or mono/color breakdowns, please report this behavior the Customer Support. You will be asked to supply debug logging from the Workflow Client for Mac® in order for us to investigate and resolve this issue.

Air Print devices

Air Print devices have been observed to report as local devices within Workflowand therefore, will not match to a server queue.

The release service will not report any errors if the error occurred after the job was released to the driver.

Documents sent to a secure queue fail to secure after install

Steps to Resolve:

1. Reinstall the Mac UM Client.
2. Reboot the Mac.
3. Try securing document.

Documents are no longer securing when sent to a secure queue

Steps to resolve:

1. Run the Repair Utility as an Administrator.
2. Reboot the Mac.
3. Print a document to a secure queue.

Queue matching error

Ensure that individual printers exist in only one secure queue in Workflow.

In environments where multiple servers are used as print servers, if printers are created as shared printers on more than one server, Printanista Workflow will return an error message regarding multiple queues, and both secure printing and job tracking will fail.

Uninstall application does not work

If for any reason the uninstall application is not successful, Workflow Client for Mac® can be uninstalled manually by running the uninstall script from the Terminal application.

Steps to resolve:

1. Log in to the Mac as an Admin user.
2. Open the Workflowdisk image.
3. Right-click on the **Uninstall** icon and select **Show Package Contents**.
4. Open the **Contents** folder.
5. Open the **Resources** folder.
6. Copy the **uninstaller.sh** file to a local drive (ie. the Desktop).
7. Open the **Terminal** application.
8. Change directory to the Desktop, **cd Desktop**.
9. Enter **sudo sh uninstaller.sh**.
10. Enter password, press **Enter**.
11. Workflow and supporting folders will be removed.

Uninstalling Workflow Client for Mac®

Important: TheWorkflow Client for Mac cannot be uninstalled by simply dragging it to the Trash.

When installed, Workflow Client for Mac integrates with part of the printing system on your Mac in order to track printing.

To uninstall Workflow Client for Mac from your computer, you must run the Printanista Workflow Uninstall application first. After successfully running the uninstaller, it is then safe to drag the Printanista Workflow folder to the Trash.

The Printanista WorkflowPrintanista Workflow Uninstall application is not installed along with Workflow Client for Mac. The uninstaller application can be found on the Printanista Workflow disk image available for download.

Troubleshooting Workflow Client for Mac

Logging

By default, Logging is turned off. If for any reason you need to contact Support to troubleshoot an issue, you will be asked to turn on logging. This can be turned on via the **Configuration** utility. You will need administration credentials to authenticate before you can make these changes.

Log files can be accessed via the **Console** app provided with the operating system. The log files will be named:

> root_usermanagement.log (/Library/Logs/root_usermanagement.log)

> <username>_usermanagement.log (~/Library/Logs/<username>_usermanagement.log)

The files are located inside the respective logs' directories for the user. When submitting the log files, you must include both the root and user log files in order for our Support team to be able to diagnose the issue.

Released Jobs are not printed

Some devices require additional configuration in order to release documents secured from a Mac. When a job is secured from a Mac and is released from Workflow, but no job is ever printed, the driver settings for the device may need to be changed to Postscript to print the secured job. Changing the driver on the Workflow server or Windows Print server to be Postscript may resolve this.

5. Initial Configuration

After the install script is complete, you can click the link within the installer or you can navigate to http://<servername>/Setup/NetworkSetup, where <servername> is the name of the server where you installed the software.

Configure Initial Settings

Click 'Next' to advance between screens.

1. The first step in initial configuration is to select your network type that will be used for authentication. The option you choose determine how users are both authenticated and imported.
   - **Active Directory** – Choose this network type if your organization is using an Active Directory domain and the web server is on the domain.
   - **Windows Peer to Peer** – Choose this network type if your organization does not have a domain or if you want to use the web server's local users only.

     Note: You must have a local login on the web server to continue. If you want your users to use automatic Client authentication they must have logins on the web server where the user name and password are identical to the login they are using on the Client desktop.

   - **Windows NT Domain** – Choose this network type if you have an older style Windows NT domain and this web server is a member of the domain.
2. You can proceed in trial mode or you can enter an activation key to fully license the software. Trial mode allows you to proceed with only 5 users; however, this option allows you to evaluate the software for 15 days. You can purchase and <u>activate the full license</u> at that later time if necessary.
3. Enter the credentials that will be used to connect to the selected network type. Workflowwill create a full access account based on these credentials.

The Administration Tool launches and is now ready for further configuration. Refer to the Getting Started topic within the Online help for information about how to proceed.

6. Testing the Installation & Initial Configuration

Testing the installation is a simple process:

1. Log into the Administration tool. Browse to http://<servername>/Authentication/Login. Enter your credentials to continue.
2. Print a job.
3. Confirm within the Job Accounting tab that the job was tracked.
4. Run a report and ensure the reported information is accurate.