

PrinterOn Enterprise 4.0 - Release Notes

Version 4.0.0

Product Changes and Enhancements

PrinterOn Enterprise 4.0 is a milestone release because it includes key capabilities that make PrinterOn a True Cloud Printing™ platform. These capabilities paired with other important new features enable PrinterOn Enterprise to offer both easy-to-use native print workflows and best-in-class cloud services.

The key new capabilities are Single Sign On (SSO) support, support for OpenID Connect-compatible Identity Management systems (iDM) and PrinterOn Users. This, combined with PrintWhere® 6.0 (PrinterOn's universal Windows desktop client) and PrinterOn's best-in-class mobile printing applications for iOS and Android, make PrinterOn a powerful True Cloud platform for delivering virtually any enterprise-grade secure print workflow.

IMPORTANT NOTE: You can only upgrade to PrinterOn Enterprise and Express 4.0 from version 2.5 or higher. For upgrades from previous versions, please update your software to the latest version of 2.5.

PrinterOn STRONGLY recommends upgrading all servers to version 3.2.7 before upgrading to 4.0.0 for the best upgrade experience.

New Features and Enhancements:

- **New – Cloud-based SSO Support and Identity Management Integrations**

PrinterOn administrators can now leverage a wide range of 3rd party iDM providers to offer SSO capabilities for PrinterOn's desktop, laptop, and mobile print workflows.

PrinterOn Enterprise 4.0 supports any OpenID Connect-compatible 3rd party iDM solution. OpenID Connect is an industry-leading standard supported by Microsoft and Google and others. It is widely adopted by most iDM providers.

PrinterOn Enterprise's SSO and iDM support extends modern authentication methods to traditional or emerging print workflows that do not yet support the latest secure authentication services, such as Native iOS and Windows desktop/laptop printing.

With a simple configuration, PrinterOn Enterprise offers SSO and iDM support for all workflows including:

- PrinterOn PrintWhere universal Windows driver
- PrinterOn Mobile Apps for iOS and Android
- PrinterOn Print Service Plugin for Android
- Native iOS and native Mac OS X printing
- Google Cloud Print
- PrinterOn's web print portal
- PrinterOn email printing
- PrinterOn PQMS

- **New – PrinterOn Client Support for 3rd Party iDM**

PrinterOn-developed clients have been enhanced to support form-based authentication services provided by 3rd party iDM providers. This new support enables users to authenticate using existing, externally hosted authentication forms. This increases overall security by integrating with OpenID Connect authentication forms. Support for form-based authentication is available in these PrinterOn clients:

- PrinterOn PrintWhere client for Windows version 6.0+
- PrinterOn Mobile for iOS version 3.5+
- PrinterOn Mobile for Android and the Android Print Service plugin version 3.5+

- **New – Microsoft Azure Active Directory Extended Support**

In addition to PrinterOn's standard SSO and iDM support, PrinterOn Enterprise 4.0 offers extended support for Microsoft Azure Active Directory with various PrinterOn deployment methods including pure cloud or hybrid cloud/on premise using Microsoft AD Connect.

PrinterOn's Azure AD support includes user account and user group synchronization to provide support for both just-in-time provisioning or synchronized provisioning.

Automatic configuration and support for all workflows including:

- Native iOS and OS X printing
- Google Cloud Print
- PrinterOn Queue Management (PQMS)
- Email printing

- **New – PrinterOn Users and User Management**

PrinterOn Enterprise 4.0 includes a fully standalone user store enabling both independent operation and user provisioning when used in conjunction with a 3rd party iDM solution.

With PrinterOn Users and User Management, administrators can create and internally manage users and groups supporting authentication and guest print for all existing workflows.

PrinterOn internal users also extends support for guest printing to 3rd party iDM solutions including Microsoft Azure AD.

- **New – PrinterOn User Rules and Access Control**

PrinterOn's user management supports user rules and role-based access control when used with either PrinterOn internal users or when paired with users provisioned from 3rd party iDM solution. These user rules manage user access to individual printers and printer groups, as well as assigning administrator-role access to internal or 3rd party provisioned users.

- **New – Citrix Worx MDM/MAM Support for iOS and Android**

PrinterOn mobile apps now support Citrix Worx MDM/MAM to provide enhanced security and control for organizations using Citrix MDM. PrinterOn Citrix MDM support delivers all features consistent with other PrinterOn MDM integrations including remote configuration using existing MDM/MAM functions such as:

- Remote PrinterOn service info configuration
- User control limits
- Content access management using system extensions

- **New – HP Access Control Server Integration Support**
PrinterOn Enterprise 4.0 supports HP Access Control, enabling all PrinterOn mobile print workflows for the HP Access Control server. This integration easily allows administrators to activate HP Access Control integration in a single step. Once configured users are able to submit jobs from any PrinterOn workflow, including mobile apps, native iOS or OS X printing, Windows desktop/laptops and more to HP Access Control for processing and release. This integration leverages HP Access Control features such as secure card release, pull printing, and print job tracking.
- **New – Server-Side Document Preview for Mobile Apps**
PrinterOn Enterprise 4.0 supports server-side document preview capability that improves the user experience when printing from iOS and Android mobile apps. This server-based preview can generate high quality previews of nearly any file format. Previewed documents are efficiently streamed to the mobile devices using a per-page, on-demand method to retrieve previewed pages. Options including paper sizes, color/mono, and page ranges are supported for most formats to provide high quality previews of original documents.
- **New – LPD/LPR Protocol Support**
PrinterOn Enterprise 4.0 includes an LPD service and directly supports the LPR protocol as a standard PrinterOn Enterprise workflow. PrinterOn Enterprise 4.0 offers several options to support print data delivery from a wide range of sources, enabling modern, network-agnostic print delivery anywhere in the world. It extends the life of the legacy LPR print protocol as providers, such as Microsoft, are in the process of removing native LPR support in their products.
- **New – Color and Mono Print Output Controls**
PrinterOn administrators now have greater control to manage access to color and mono output on a per-print-queue basis. Administrators can now select whether users see color or mono print options. They can also present mono output as default for end users using PrinterOn workflows. This extends PrinterOn's existing finishing options and ability to manage:
 - Page range
 - Available form sizes and default paper size
 - Duplex output options and default behavior
 - Administrator imposed per-job page limits
 - Administrator imposed per job output file size limits
- **New – Optional Driver-Based Copies Configuration**
Administrators can now optionally select from multiple methods to support printing copies of documents on a per printer basis. The new driver-based copies option allows PrinterOn to use built-in driver capabilities when generating multiple copies of a document, as opposed to using application-based options or duplicating the content to create more than one copy.

This option often decreases the size of a print job when submitting multiple copies, as it allows the individual driver to determine the optimal way of generating the content.

NOTE: Not all print drivers support this option. It should be tested before enabling it for the printer.

- **New – Fallback Central Print Services Server Support**
The Central Print Service (CPS) now supports both a primary and secondary service URL. This allows for additional redundancy in a daisy-chained deployment without requiring additional load balancers.
- **New – Configuration Manager Component Reset Utility** (SPOCPS-2246)
A new managed component reset utility is available to allow all component IDs to be cleared from the configuration manager database.
- **Updated – Default exclusive TLSv1.1 and TLSv1.2 support for Enterprise Server** (PAS-4310)
As of version 4.0, PrinterOn Enterprise pro-actively implements the highest security standard. By default, versions of TLS and SSL prior to TLSv1.1 are disabled due to known vulnerabilities.

Changes made by PrintWhere can manually be modified following these instructions:

- <https://support.microsoft.com/en-us/kb/3140245>

- **New – Microsoft Visio 2016 Format Support** (PAS-4150)
Added support for the Visio 2016 file format.

PrinterOn PrintWhere® 6.0

The PrintWhere® universal driver is a unique and powerful software solution that enables any Windows based PC laptop or Surface tablet to print to any PrinterOn-enabled printer. PrintWhere eliminates tedious printer configuration and empowers users to discover and securely print to printers anywhere in the world using a simple and easy to use software solution.

PrintWhere 6.0 contains many improvements. It builds on existing PrintWhere functionality providing additional refinements and many improvements. Here are some of those improvements:

- **New – Azure AD and 3rd Party Identity Management**

PrintWhere 6.0 has been enhanced to be able to leverage form-based authentication services provided by 3rd party iDM solution providers. PrintWhere users are now able to authenticate directly with Azure AD or other 3rd party iDM solutions using an independent browser-based authentication portal.

- **New – Direct TCP Print Support (PWC-6694)**

Administrators can now configure PrintWhere 6.0 to output jobs directly to a printer or MFP using standard TCP (port 9100) print methods. Previously, PrintWhere only supported output to a PrinterOn solution or IPP endpoint.

This capability allows PrintWhere-enabled Windows devices to intelligently deliver print jobs in the most efficient manner possible, wither directly to the printer or indirectly through a PrinterOn print delivery agent.

- **Improved – PrintWhere External Configuration**

PrintWhere's automated deployment and configuration options have been improved. This includes:

- Default printers now automatically configure printer and driver settings.
- Kiosk mode maintains a user's identity until the user logs out of their Windows session. This reduces the number of times a user must enter their credentials when using Window's guest login.
- "Don't ask again" option works as expected when "Always ask for Credentials" is enabled.
- Fixed issue where leading/trailing spaces were not automatically removed from the default printer list.
- AskForCredentials always now only asks when printing or when Printer Manager is launched for the first time each time a user logs into Windows (PWC-6700).

- **Improved – Consolidated Account Management (PWC-6776)**

Access for managing user credentials has now been consolidated into the Printer Manager application. Previously, users could enter credentials either under the printer properties dialog or using the Printer Manager. Users attempting to modify their credentials using the printer properties are now offered a link to launch the Printer Manager. This improvement provides a more consistent experience for users.

- **Improved – Users are prompted to validate credentials when changing Service URLs (PWC-6767)**

Users are now proactively prompted to validate and update their credentials in PrintWhere after configuring a new PrinterOn Service URL. This helps minimize incorrect configuration issues when using various services.

- **Updated – PrintWhere updated to show installed PrinterOn drivers (PWC-6658)**

PrintWhere Printer Manager "About" dialog has been updated to list which PrinterOn supplied drivers have been installed on the client PC when using the PrintWhere LE compact installation.

- **Updated – Secure Release Code Confirmation Dialog (PWC-6777)**
The PrintWhere Secure Release Code Dialog is now enabled by default. Printers for which a release code is configured will now prompt users with a dedicated dialog to provide their release code.
- **Fixed – PrintWhere logs stored in the incorrect folder (PWC-6763)**
Addressed issue that caused PrintWhere to create log files in an incorrect location. PrintWhere will now store logs in the user's profile folder.
- **Fixed – Option to suppress PrintWhere update notifications not obeyed (PWC-6695)**
Addressed issue that caused PrintWhere to ignore the admin option to ignore PrintWhere software update notifications.

PrinterOn Embedded Agent for Samsung Enhancements and Changes

New features have been added for Samsung printers and MFPs offering access to PrinterOn's modern pull print solution, *Secure Release Anywhere™*, including:

- **New – Secure Release Anywhere™ Support**

PrinterOn's *Secure Release Anywhere™* offers pull print support for all PrinterOn solutions including PrinterOn Hosted Edition (Public Cloud) and PrinterOn Enterprise Edition. Secure Release Anywhere enables users to submit jobs to a single print queue and release their jobs at any managed device.

Using the PrinterOn embedded agent for Samsung, jobs can be easily and securely delivered not only within the single network, be also delivered efficiently across disparate networks, thereby providing the capabilities of a pull print solution with the flexibility of a simple plug and play global solution.

- **New – Enhanced PrinterOn Enterprise On Premise Support**

The PrinterOn Embedded agent for Samsung solution now supports full PrinterOn Enterprise integrations allowing for local integrated reporting management through the PrinterOn Enterprise solution.

- **New – Embedded Print Router**

The PrinterOn Embedded agent for Samsung agent can also act as a print job router for other printers or MFPs which do not include the embedded software. By defining and linking multiple PrinterOn virtual printers to a single PrinterOn Embedded agent for Samsung MFP, the administrator can configure network output destinations for each listing, allowing the embedded agent to redirect jobs to these printers once jobs have been downloaded locally to the PrinterOn Embedded agent for Samsung MFP.

Mobile App Enhancements and Changes

A number of new features as well usability and user experience enhancements have been added to both the iOS and Android applications released with PrinterOn Enterprise 4.0. This includes:

NOTE: Version 3.5 and newer of the PrinterOn Mobile for iOS now requires iOS 8 or newer to function. Previous versions may be available from the app store, but will no longer be maintained.

- **New – Print Worksheet Options on Android for ODS files (Libre/OpenOffice) (AND-916)**
Support for Android users to select whether to print an entire workbook or active sheet when submitting an ODS file.
- **Updated – Android QR Code Support (AND-898)**
Significant enhancements to the Android QR code scanner services and logic to significantly decrease the time to read and process QR codes.
- **Updated – AirWatch MDM/MAM Support and Libraries**
Updated PrinterOn mobile apps to the latest SDKs and MDM libraries supplied by AirWatch to ensure the highest security. Updated to version v5.9.3.3 for iOS.

Added support for 3rd party identity management and form-based authentication services consistent with the core PrinterOn Mobile for iOS App.

- **Updated – MobileIron MDM/MAM Support and Libraries**
Updated PrinterOn mobile apps to the latest SDKs and MDM libraries supplied by MobileIron to ensure the highest security. Updated to version v3.1.1. for iOS.

Added support for 3rd party identity management and form-based authentication services consistent with the core PrinterOn Mobile for iOS App.

- **Updated – BlackBerry (Good) MDM/MAM Support and Libraries**
Updated PrinterOn mobile apps to the latest SDKs and MDM libraries supplied by BlackBerry (Good) to ensure the highest security. Updated to version 3.0.0+ for Android and version 3.0.2+ for iOS.

Added support for 3rd party identity management and form-based authentication services consistent with the core PrinterOn Mobile for iOS App.

- **Improved – German Localizations for iOS and Android**
Improved German translation for iOS and Android throughout the mobile apps.

General Improvements and Resolved Issues

The following section describes issues that have been resolved and other general product improvements.

- **Updated – Deferred Agent notification time decreased to 0 seconds** (PDH-153)
Reduced the deferred notification timeout from PDH to PrinterOn agents from 15 seconds to immediately (0 seconds).
- **Updated – Apache Tomcat Version** (SPOCPS-4950)
The Apache Tomcat version included with the PrinterOn Enterprise 4.0 installation has been updated to version 8.5.11
- **Updated – Oracle Java Version** (SPOCPS-4949)
The Oracle Java version included with the PrinterOn Enterprise 4.0 installation has been updated to version 8 update 121.
- **Improved – Hybrid Deployment Web Print Performance** (SPOCPS-4024)
Addressed an issue that caused the web print workflow to take an extended period of time (2-5 minutes) to load all printers when a large number of printers is loaded. This release improves the load time such that initially loading 15,000 printers into the web print user interface can be completed in approximately 30-40 seconds. Subsequent loading times are reduced and can be completed in under 2 seconds

NOTE: The web print workflow is intended for end users, and it is rarely expected that a single user will be supplied with thousands of printers to pick from. Generally, PrinterOn's recommendation is to organize printers into groups and filter users to only those required for that user.

- **New – Configurable Printer Synchronization Timeout for Hybrid Deployments** (SPOCPS-4050)
Introduced a new configurable synchronization timeout option to allow administrations to manage the time to synchronize a large number of printers between PrinterOn's cloud directory and the Enterprise service.

In cases of large numbers of printers, exceeding 5000 printers per instance, it may be required to modify the synchronization time depending on factors such as server configuration, number of printers, and network performance. PrinterOn has tested synchronization of up to 15,000 printers to a single instance.

Administrators can now tailor the configuration outside the default 2 minute timeout to accommodate deployment-specific requirements.

- **Improved – Selecting network adaptor for Bonjour broadcasting** (PDG-345)
Re-introduced the ability to select which network adaptor to broadcast Bonjour information for iOS devices.
- **Improved – PrinterOn Enterprise Installer and Automation** (SPOCPS-3474)
Several improvements have been made to the PrinterOn Enterprise 4.0 installer improving overall reliability. Additionally, several new automation options have been introduced including the ability to select individual components and specific component serial numbers from the command line at install time, improving the overall installation automation capabilities.

- **Updated – Default Inbound Job Size** (SPOCPS-3918)
The default inbound job size for PrinterOn Enterprise 4.0 has been increased to 100MB.
- **Updated – Remote Release Option enabled by default** (SPOCPS-3524)
The remote release option is now enabled by default for all newly created printers.
- **Updated – Printer address configuration settings moved** (SPOCPS-2039)
Physical printer address configuration information has been moved to a dedicated configuration panel.
- **Fixed – Incomplete job information communicated between PDS and PDH when using an HTTP-based load balancer and HTTP Keep-Alive enabled** (PDH-144)
Addressed issue that could cause incomplete job information when retrieving some metadata between PrinterOn agents and the Print Delivery Hub (PDH). This only occurs in environments where PDH is clustered and an HTTP-based load balancer is used.
- **Fixed – Disabling “Client Notification De-Registration” also disables Client Registration** (PDH-150)
Addressed issue that cause Client Registration in PDH to be incorrectly disabled when disabling Client De-Registration in the Configuration Manager.
- **Fixed – PDG “Test Connection” option fails when proxy configured** (PDG-361)
Addressed issue that caused the Test Connection in the Configuration Manager to incorrectly fail when the Print Delivery Gateway is configured to use a proxy server.
- **Fixed – Last communication date from a PrinterOn Agent reported incorrectly** (SPOCPS-2954)
Addressed issue that caused the last communication date from a Print Agent including PDS, PrinterOn Embedded for Samsung or Ricoh to be displayed incorrectly.
- **Fixed – Web frame incorrectly created when generating Printer Activity reports** (SPOCPS-3504)
Addressed issue that caused a web frame to be incorrectly created each time the Generate Report button is clicked on the Printer Activity reports.
- **Fixed – Fail to submit jobs from PrinterOn Enterprise to print queues with & in the name** (SPOCPS-3943)
Addressed issue that caused print jobs to fail to be printed if the name of the print queue on the machine running PrinterOn Print Delivery Station contained an ampersand ‘&’.
- **Fixed – Unable to change SQL Server backup settings multiple times** (SPOCPS-3936)
Addressed issue that caused the Configuration Manager to fail and report an error when trying to change the backup schedule settings multiple times.
- **Fixed – IPP and Native iOS Print test print button not working** (SPOCPS-3969)
Addressed issue that caused the Test Connection button on the IPP and Native iOS workflow page to fail.

- **Fixed – Proxy Server Support (PDG-361)**
Addressed issue introduced in 3.2.0 that caused synchronization of printers both from the Print Delivery Gateway to CPS as well as from CPS to PrinterOn’s Directory when using a Hybrid deployment to fail when a proxy server is configured.
- **Fixed – Standalone Print Delivery Gateway Upgrades (PDG-357)**
Addressed issue that caused upgrades from Print Delivery Gateway version 3.2.6. This will improve upgrading to future versions as well. This only affected standalone deployments of Print Delivery Gateway.
- **Fixed – Print Delivery Gateway Concurrent Jobs Option Not Enforced (PDG-344)**
Addressed issue that did not allow administrators to specify a concurrent job submission rate less than 5 concurrent jobs. In some environments, it may be desirable to serialize submissions of print jobs; by allowing this option to be set to 1, administrations can control the serialization of jobs.
- **Fixed – Error Reported with Web Print When Using 2 Separate Windows (SPOCPS-4166)**
Addressed issue printing with Web Print when switching back and forth to print between multiple windows.
- **Fixed – Release Mode settings not copied when using Copy Print Settings (SPOCPS-4370)**
Addressed issue that caused Release Mode settings to not be property copied between printers when using the Configuration Manager’s Copy Print Settings service.
- **Fixed – PrintAnywhere logs not obeying General Settings options (SPOCPS-4012)**
Addressed issue that failed to update PrintAnywhere components when log levels are changed on the Configuration Manager General Settings section.

Installed Product Information

PrinterOn Enterprise 4.0.0.1836 includes the following software:

- Central Print Services 4.0.0.1182
- PrintAnywhere Server 6.0.0.1095
- Print Delivery Gateway 6.0.0.921
- Print Delivery Station 4.0.0.1157
- Print Delivery Hub 4.0.0.1157
- RenderPDF 6.0.0.89
- PrintWhere® 6.0.0.1195
- Sun Java Runtime Environment 1.8.0.121
- Tomcat 8.5.11

System Requirements

- A dedicated physical server or virtual machine
- Intel compatible processor with 2GHz multi-core processor
- 4 GB RAM minimum (8 GB recommended)
- 60 GB (10 GB of free disk space for PrinterOn Server software and third party applications)
- Windows Server 2008 (64-bit) or Windows Server 2012 (64-bit), with current patches installed

Please contact support@printeron.com if you have any questions.