

uniFLOW

control printing and copying
improve user productivity
heighten document security

SOFTWARE SOLUTIONS



Keep your office running smoothly.

Encourage responsible printing behaviors.

Help eliminate frustrations caused by over-used or faulty print devices.

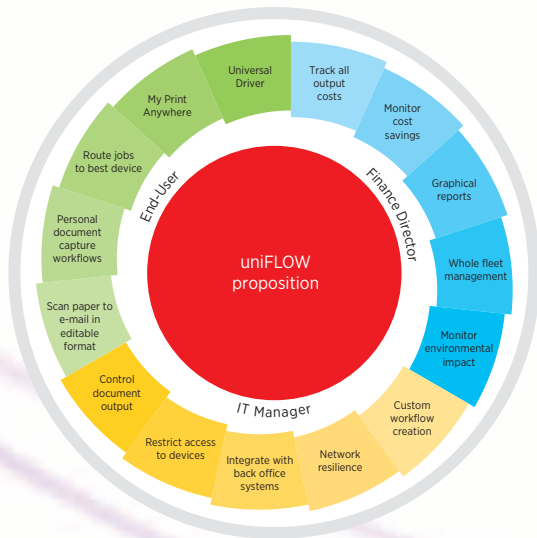
Get your prints exactly as intended and when you need them.

Added control and extra efficiency.

Whatever the size of your company, you can use the uniFLOW solution to gain effective control and management of your entire printer fleet. This comprehensive, Web-based software system is both modular and configurable, allowing the implementation of a solution that's aligned to your specific business requirements.

What is uniFLOW?

uniFLOW is designed to save you time and money by providing effective control over your entire print fleet. You'll be able to identify and manage the cost of printing, copying, scanning, and faxing across your enterprise. With uniFLOW, you can identify users' printing behaviors and address their needs to improve the overall efficiency of printing and security.



Reduce costs and improve user productivity

Save money by understanding your printing costs and introducing policies that discourage wasteful printing. Minimize time spent managing and solving IT problems while, at the same time, reducing the frustrations of users who can't print when needed. uniFLOW addresses these issues by highlighting "out of toner" problems and paper jams. Your IT department is kept informed and, if required, pre-defined rules can be set up to redirect jobs to other printers automatically.

Heighten document security

Paper documents handled in the office often contain confidential information. If such information is compromised, either deliberately or accidentally, the consequences can be damaging to business. While information on companies' computer networks is usually well protected, information being scanned and printed on MFPs is not.

uniFLOW can be used to introduce a completely secure printing environment that demands users to authenticate themselves at the printer before their print jobs are released. This way, confidential documents are not left lying on the printer tray for everyone to see. uniFLOW also tracks all the e-mails made from the MFP, attaching the credentials of the user to the sent e-mails. Just as from the PC, sending of anonymous e-mails from your office MFP will be prevented.

In addition to supporting Canon devices and HP Single-Function printers, uniFLOW has enhanced device support in the form of third-party embedded applets, embedded uniFLOW support on imageRUNNER 2500 Series devices, and a new hardware device called microMIND to support Card authentication on single-function printers.

Secured printing, accounting, and job routing — The end-user experience.

The functions provided by an office management system are only as good as the experience provided to the user.

Print to the normal printer

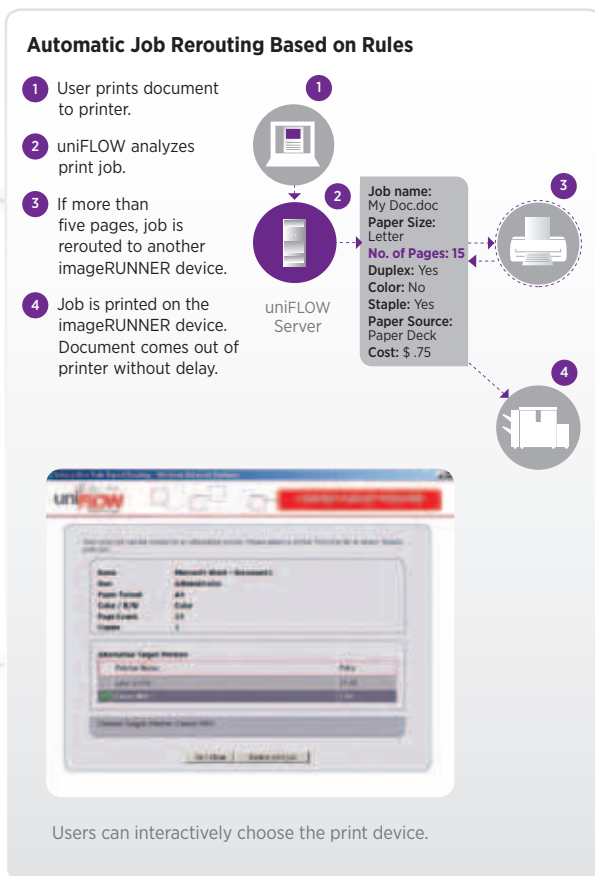
Locally attached or small workgroup laser printers are usually located much closer to the user than the multifunctional device, but, unfortunately, they're also more expensive to run. Users generally don't think about which device is most suitable to print their job—they just press the "print" button regardless of whether a cheaper printer could have been used. While this may be acceptable for small jobs where the costs are low, larger jobs need more attention. uniFLOW allows the best of both worlds. Local printers can be used for printing small jobs but larger jobs can be routed to a secured print queue or directly to the MFP in order to reduce printing costs.

The end-user still just presses the "print" button, but once the job matches certain conditions, they're prompted to route the job to a more cost-effective printer. The conditions used to route the job can be different for each printer and include criteria such as the number of pages, the cost of the job, whether it contains color, or the application used to print the job. The user may choose to override the prompt to route the job to a preferred printer if given permission by the administrator. Print jobs can also be set up for automatic rerouting to the most cost-effective device, thereby denying the user the choice.

Collect secured jobs from any printer

One disadvantage of using an MFP rather than a local printer is that someone may mistakenly pick up another user's print job. uniFLOW allows documents to be stored on a server and released only once the user is standing next to the printer. Users can send jobs directly to the secure print queue or they can be routed from desktop printers. Users working outside the company network can send jobs to the secure print queue via the Internet to be collected when convenient.

Since the user can choose any printer on the network—regardless of model or manufacturer—to release a job, the uniFLOW Universal Printer Driver ensures that the output is exactly as the user expects. Once ready to collect the secured print jobs, the user needs to authenticate at the printer using a proximity card, smart card, magnetic swipe card, PIN number, fingerprint, or username and password. A list of waiting jobs is displayed on the MFP panel, where the user can then decide to change how each job will be printed before releasing it.



Secure Print job selections on device UI

Scan to e-mail in an editable format

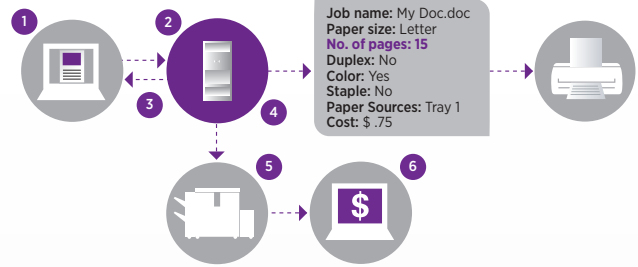
Once authenticated at the MFP, the user can also scan paper documents easily to e-mail or the company document management system.

Users who select scan to e-mail will have a similar experience to sending an e-mail from their desktop (due to native integration with Microsoft® Exchange), as they can select recipients from the global address lists and the scanned document will be stored in the users' "sent items folder." uniFLOW can perform Optical Character Recognition (OCR) on the document and convert the image to an editable format, such as Microsoft Word, as well as extract text and bar codes to be used as indexing information. The document can be highly compressed to reduce the file size and storage requirements.

The interaction with the scanning interface is dynamic and personalized for each user. Personal buttons and scan workflows will appear on whichever device the user chooses, providing a consistent experience.

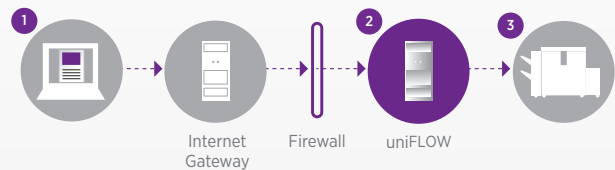


Dynamic scan interface at imageRUNNER device



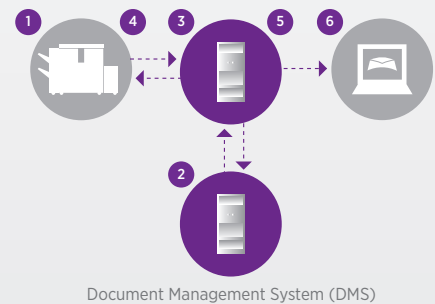
Routing a Job to the Secure Print Queue

- 1 User prints his/her document to the laser printer.
- 2 uniFLOW analyzes the print job.
- 3 If job is more than five pages, user is prompted to route job to the secure print queue.
- 4 Routed job is held on the server.
- 5 User authenticates at the printer and his/her job list is displayed. User may change the print settings, if required, before printing.
- 6 Job costs and savings, if any, are stored in the database.



Secured Printing Over the Internet

- 1 User prints his/her job from remote location to the uniFLOW Internet Gateway.
- 2 uniFLOW pulls secured print job from the Internet Gateway.
- 3 User authenticates at the printer and his/her job list is displayed. User may change the print settings, if required, before printing.



Scanning to E-mail and a Document Management System

- 1 User identifies at the MFP and selects to scan the job.
- 2 uniFLOW retrieves indexing categories from DMS.
- 3 uniFLOW performs OCR on the document to automatically capture index information.
- 4 User confirms index information on display panel.
- 5 uniFLOW compresses the document.
- 6 Scanned document is sent to user's e-mail in editable MS Word format and to DMS as highly compressed PDF.

Reduce your costs and heighten security. The finance department experience.

Track all output costs

uniFLOW helps the finance department track and assess the organization's current printing costs, allowing internal costs to be charged back and current usage, audited.

Local printers, network laser printers, large-format printers, and multifunctional devices can all be tracked. For Canon MFPs, copy, fax, and scan usage can also be recorded along with any printing activity. Regardless of the organization's size, uniFLOW can handle it all, from small companies with one device to large global international organizations with hundreds of different sites and clustered servers.

Each printer can be assigned multiple price structures, allowing the tracking of charges to the user as well as the internal printing costs. Budgets can be set to stop users from printing more than they are entitled to. Managers' authorization can be required before printing large or expensive jobs.

Multilevel cost codes can be assigned to print and copy jobs, making sure the correct budget is charged for the work.

Authorization workflow

uniFLOW gives organizations the ability to create a workflow to authorize print jobs. If a print job is over a certain number of pages, a rule can be set to send a request for authorization. If authorization is granted, the job is released. Implementing an approval process for high-value print jobs allows companies to ensure that large print jobs are input correctly and, consequently, unnecessary expenses are not incurred.



Report on Color Usage



Monitor cost savings

Tracking costs is only one part of the financial aspect of uniFLOW. Any savings made from having uniFLOW installed are also recorded, allowing the finance department to show the true return on investment achieved. For example, savings can be made by routing a job to a cheaper printer or deleting a secured print job that has not been collected.

Potential savings can also be calculated, allowing the finance department to see how much money is being wasted by users not taking full advantage of the printing infrastructure.



Cost-savings Report

Multitier cost centers

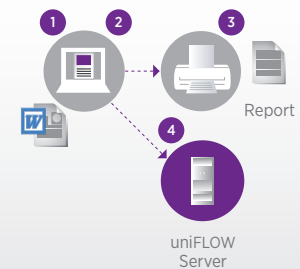
uniFLOW provides an effective cost-recovery solution to any organization (especially legal firms) looking to charge back their clients for document output. Using the uniFLOW client pop-up or MEAP application, an end-user can enter/select cost centers (billing codes) prior to making copies or prints. uniFLOW supports a multitier cost center method that can have both linked and unlinked cost centers.

Desktop accounting

Desktop printers can create headaches for IT staff and the finance department because they can be costly to run and difficult to monitor since they're not on the network. uniFLOW helps you control the cost of these devices, as well as include the relevant usage and cost data within the uniFLOW database.

Track Device Usage

- 1 User prints document to the printer.
- 2 Client software on the PC analyzes the print job.
- 3 The document prints without any delay.
- 4 Accounting information is sent to the server and stored in the database.



Cost center selection on imageRUNNER and Client PC



Monitor device usage with detailed reports.

Graphical reports

The finance department can view all device usage across the organization and access reports by user, device, and groups, or multilevel cost code.

Standard reports include all the information required, such as which device is being most utilized and who is spending the most. Savings reports show all the savings and potential savings that have been made over the period.

Printing Intelligence reports can show the current state of the printing environment together with a trend analysis and a detailed breakdown of all usage. Environmental information, such as the amount of trees that have been saved through double-sided printing are also shown in the Printing Intelligence reports.

If the finance department needs additional information, customized reports can be easily added.



Enhanced device support

Canon compact multifunctional printers (CMFP) are smaller, cost-effective print devices not equipped with MEAP. For this reason, MEAP based applets, like the uniFLOW Login Manager or the MomClient, will not run on CMFP devices, rendering the usual secure printing functionality impossible. To solve this problem and help make secure document release available on these devices, Canon and NT-ware have developed a uniFLOW integration that's added to the CMFP's firmware. In addition, an interface was created within uniFLOW to enable communication between the CMFP and uniFLOW. These enhancements provide a GUI that works very much like MEAP and MomClient. It allows the user to establish a connection from the device to uniFLOW and release documents in a secure way, without the need for MEAP applets. However, it doesn't provide the complete functionality that MEAP or MomClient offer. For example, the print jobs listed on the secure document release list can only be printed all at once. For the purpose of user authentication, it's possible to use a card reader in conjunction with the CMFP device, such as the imageRUNNER 2500 Series or the Color imageRUNNER C1030 Series devices.

NT-ware microMIND



The microMIND makes it possible to connect a MiCard (V2) reader to any printer. This allows you to turn your usual office printer into a cost-effective secure print solution. The microMIND supports both the MiCard V1 reader (an earlier version of the MiCard) as well as the MiCard V2 reader. The microMIND is designed to add the Secure Print feature especially to single function printers. It's not limited to Canon devices only—almost each device, from every vendor, is supported. Hence, NT-ware provides an easy and cost-effective solution to include almost all companies' printers and install them in uniFLOW as a secure printer.



Card authentication and secure print release on imageRUNNER 2500 Series

Complete device and document security. The IT manager's view.

Network resilience

uniFLOW is designed to minimize disruption to your business when there are network problems. Print and scan devices can be configured to work with remote print servers that don't require a link to the main server to function.

Servers can also be clustered to provide another layer of resilience.

The MFP itself can remember the log-in details of users so they can still access some functions, such as copying, even when the network is down.

Control how jobs are printed

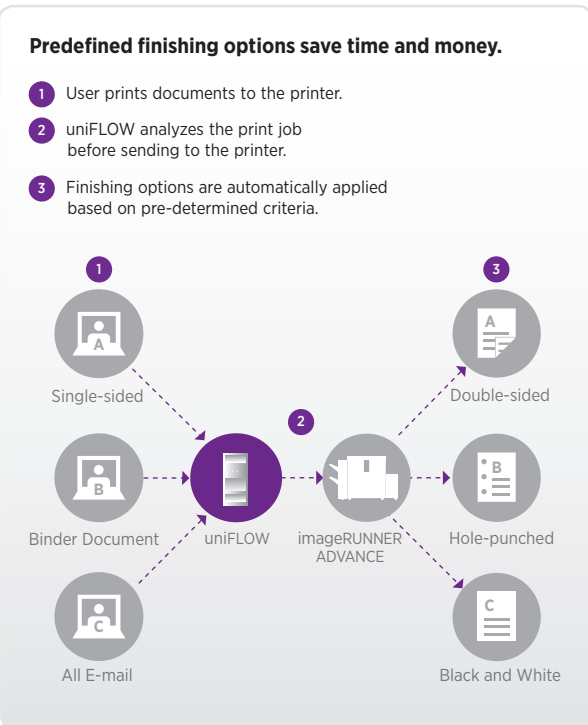
Information provided by uniFLOW allows the IT manager to define printing policies on the network. For example, the IT manager may decide to force all e-mails to be printed in black and white, restrict larger jobs from being printed on smaller laser printers, or prompt users to send the job double-sided once it's over a certain size.

Restrict access to the MFP

There may be reasons why the IT manager requires different users to have access to different functionality on the same device. With the tight integration of uniFLOW and the Canon MFP, the IT manager can set access policies for each device. For example, guests to the organization can be allowed access to only black-and-white functionality, while staff can use all copying, scanning, and faxing functions. Alternatively, staff can be allowed to only copy in color on the MFPs next to the managing director's office, while managers can copy in color on any device.

Integration with back-office systems

Access to the device is controlled by proximity card, smart card, magnetic swipe card, fingerprint, PIN number, or user name and password. uniFLOW can integrate with the company's existing user directory or it can "self-learn" which card belongs to which user, thereby removing the burden from the IT department.



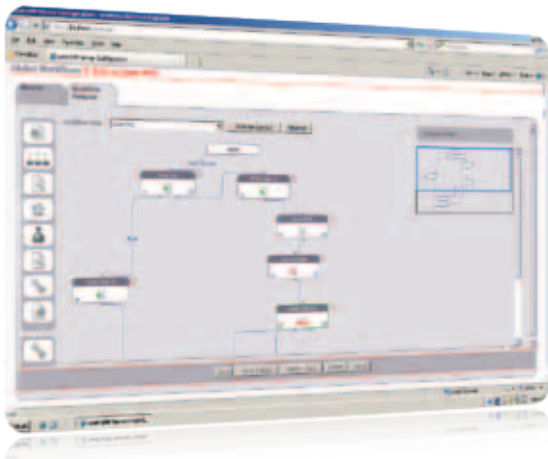
Self card registration at Canon imageRUNNER device

For the scanning environment, uniFLOW includes native integration with Microsoft Exchange, Microsoft SharePoint, and Therefore, among others. Scanned documents can be highly compressed, reducing hard disk space requirements on the server. Any required indexing information can be captured from the user or directly from the document itself using bar codes or zone OCR.

Custom Workflows

Different departments and users require different functionality when it comes to printing or scanning documents. For example, the accounts department might have a special requirement for scanning invoices to a document management system, while the sales department might want the ability to convert paper orders into Microsoft Excel format for processing.

uniFLOW includes a graphical workflow editor that allows the administrator to decide exactly what should happen when users print or scan a document. These workflows can be different for each printer depending on the needs of the department, and personal workflows can follow users as they move from device to device. A drag-and-drop interface allows the administrator to simply create the workflows needed for each user and device.

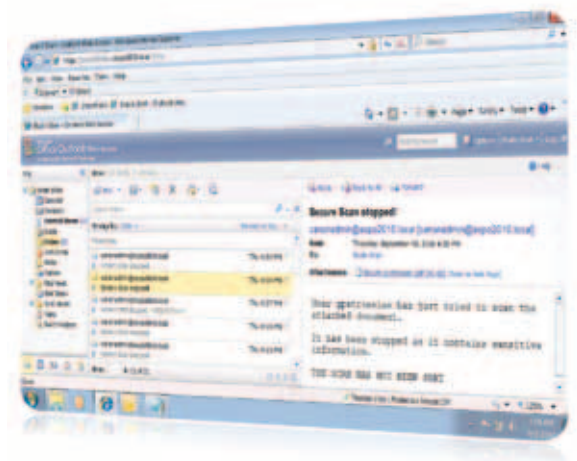


Graphical workflow building

Complete document security

Secured printing stops potentially secured documents from being left on the output tray for anyone to see. But what if that document should not have been printed in the first place?

uniFLOW can capture every copy, print, scan, and fax that's been made and process the image data for key words before storing it in a document management system.



E-mail notification for security breach

System Requirements

Software

Operating System:	Windows® 2000/2003/2008 Server Internet Information Server 5.0 (2000) or 6.0 (2003) or 7.0 (2008) Internet Explore 5.5 or higher (Internet Explorer 7.0 recommended) or Windows XP Professional or Windows 2000 Professional (Personal Web Server recommended)
Support Databases:	SQL Server 2000/2005/2008 SQL Server 2005 Express Edition Microsoft® SQL Server Desktop Engine

Hardware

Minimum:	2GHz Pentium® III 512MB RAM 4GB Free Hard Disk Storage
Recommended:	Core™2 Duo Processor 2GHz 32-bit (x86) 2GB RAM 40GB Free Hard Disk Storage

Meta Languages

Canon CPCA
(Common Peripheral Controlling Architecture)
Printer Job Language (PJL)

Analyzable Printer Driver Data

Can be analyzed (to a smaller or greater extent) by uniFLOW OM

PDL (Page Description Languages):

Canon UFR (Ultra Fast Rendering)

- UFR I
- UFR II

GARO
(Canon Proprietary, PDL for ink-jet printers)

PostScript®

- Level 3 (PSC)

Printer Command Language

- PCL 5
- PCL 5e
- PCL 5c
- PCL 6
- PCL XL

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