

## These are the benefits

- Quota and fee-based printing and copying solution
- Decrease of print costs and increase of business and user efficiency
- Documents follow users to their choice of printer
- Tracking of print and copy activity
- Any public workgroup printer is turned into a personal printer
- Utilization of printers is optimized
- Turn print and copy costs into a revenue stream

The expense of printing and copying in educational institutions and libraries is a challenging management problem that needs careful consideration. The solution chosen should of course allow for accurate charging of printing and copying, preferably with as little administrative overhead as possible. But how about taking the solution one step further: give all users the freedom to collect their documents at any printer at any time; save costs by avoiding wasting paper.

### How does it work

SafeCom Pay is a modular system that can be enhanced with add-on modules to build customer specific and scalable pay solutions. Without add-on modules SafeCom Pay is a software based solution that tracks print jobs for an unlimited number of users and printers. The tracked data includes; owner, number of pages, paper size, and possible use of color and duplex.

SafeCom Pay can be used by both staff and students. Staff's print activity is unlimited, but can be tracked and used for subsequent departmental invoicing. Students' print activity can be subject to various accounting policies, including:

- **Full cost recovery**  
Students pay for all their printing.
- **Partial cost recovery**  
Students are given a certain amount of credits. When the credits run out the students can choose to buy more credits.
- **Quota control**  
Students are given a certain amount of credits and can print until they run out (quota is used). This policy is popular in schools that do not allow fee-based printing.

Administrative staff can revalue accounts via the supplied SafeCom Cashier program. Students can revalue their own account by depositing cash money in the SafeCom Money Loader or via the Internet using SafeCom ePay.

With the SafeCom Web Interface students can use a web browser to see their current balance and the transactions on their SafeCom account. If local SafeCom print queues is installed, a dialog can appear prompting the student to accept the price of the job before it is sent directly to the printer.

If printers are SafeCom-enabled users can walk to any of these printers, identify themselves and collect their documents (Pull Print). Identification is by card and/or code. On Multi Function Printers (MFPs), users identify themselves the same way to access copying functionality (Copy Control). When logged in at the printer or MFP the student can see the current balance and the price of the documents.

SafeCom Pay is a printer vendor independent product and works with any PCL or PostScript printer. Copy control is supported on selected MFPs from the World's leading manufacturers, including: Canon, HP, Ricoh, Sharp and Xerox.

SafeCom Pay has been developed in collaboration with national and international universities and libraries and builds on the robust SafeCom G2 server software which is also used by demanding large companies and organizations throughout the World.

On the subsequent pages you will find more details about SafeCom Pay. Read on to learn how print and copy costs can be turned in to a revenue stream.

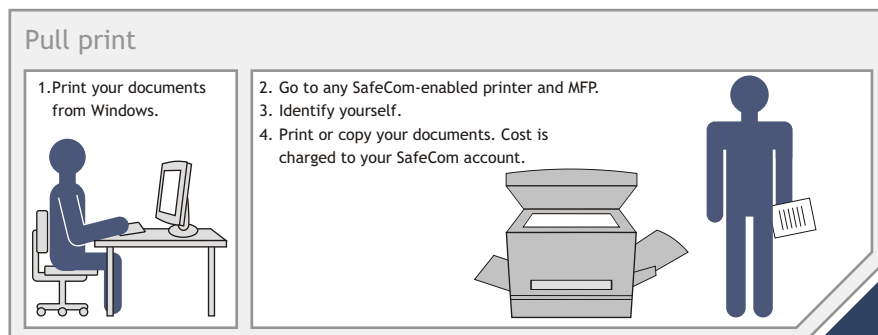
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**Pull Print**  
Documents follow users to their choice of printer

**Pull print benefits**

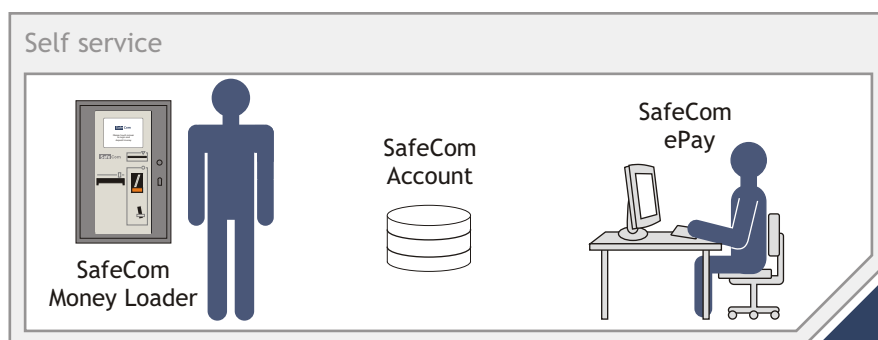
- Because nothing is printed until somebody is on hand to collect it, the piles of discarded or forgotten paper around the printers disappear. This typically means 10% cost savings!
- Documents follow users to their choice of printer. User identification at the printer is by means of a card and/or code. On MFPs, users identify themselves the same way to access copying functionality.
- Staff and students can use the same printers and MFPs without jeopardizing document security.
- Easy work-arounds for printer downtime, as users can walk to another printer.
- Ideal for printing transparencies because when users are logged in at the printer they have full control and time to load special media.
- Restrict users' access to printers.
- Easier queue management.
- Allow balanced deployment of Workgroup printers and MFPs.



**Self service**  
Students can revalue their SafeCom account

**Self service benefits**

- Administrative staff do not have to spend valuable time accepting and handling cash deposits from students.
- Students are not dependent on availability of staff to deposit money and can thus print and copy outside office hours, when staff is not available.
- Students can revalue their account themselves via the Internet using SafeCom ePay.
- Students without credit card can deposit notes and coins in the SafeCom Money Loader. As many SafeCom Money Loaders can be deployed as required.



**Cost control**  
Turn print and copy costs into a revenue stream

**Cost control benefits**

- Track print usage and use the recorded data for subsequent departmental invoicing.
- Documents printed directly to the printer can be tracked without the need of special hardware.
- Students can be made to prepay for printing and copying, in which case they are prevented from printing or copying if the balance of their account goes below a specified limit.
- Scalable solution using multiple servers working together to support as many printers and users as required and allow users to roam between locations.
- Your SafeCom Pay solution can grow with your needs, thus protecting your investment and keeping your revenue stream flowing.

Case story  
university



UNIVERSITY OF  
LINCOLN

### University of Lincoln

University of Lincoln in England installed the SafeCom Pay solution in August 2003. The university has 19.000 students with multiple needs. The SafeCom Pay solution is comprised of 2 servers running SafeCom G2 and 85 MFPs located across their campuses in Lincoln and Hull.

Earlier the university had huge problems with way too high costs of printing and copying, major amounts of wasted paper, long queues at the printers, confusion about which printer ones job was actually going to be printed on all together very poor productivity.

Now the University of Lincoln is very pleased with the SafeCom Pay solution. The productivity has increased tremendously due to the fact that with the SafeCom Pay solution any print job is printed to the server first, and then once the student has identified himself the print job is printed on the actual printer where the student is standing! This means much less wasted print outs and paper and less queues. Furthermore, the university has already saved GBP 100.000 in the first year and eliminated capital cost equivalent of 1.000.000 GBP.

#### Solution

- Balanced deployment of MFPs
- Total print management with variable cost
- Pull printing with charge back

#### Benefits

- Increased productivity
- Decreased costs
- Accountability and recovery of costs
- Print volume reduction = 25%
- GBP 100.000 savings in first year



Watch video presentation on our web site [safecom.dk](http://safecom.dk)

#### Solution at University of Lincoln

- 85 SafeCom-enabled HP LaserJet 9000mfps.
- Staff identification by 6-digit employee number and 4-digit PIN code.
- Student identification by 8-digit student number and 4-digit PIN code.
- Students are given a free quota of 200 pages per year.
- Selected MFPs are free at point of use but recharged to faculty.
- 1 master server in Lincoln and 1 slave server in Hull.
- Windows 2003, 2.8 Ghz CPU, 2.5 GB RAM, 150 GB disk space.
- 8 SafeCom Money Loaders deployed across campuses.
- SafeCom Web Interface, SafeCom Administrator API.
- Custom developed user import from Active Directory.
- Custom developed invoicing module.
- At peak hour there is an average of 30 logins per minute.
- The average print job is 6 pages with a size of 350KB.

How to  
get started



#### 30-day Trial version

Before committing to a SafeCom Pay solution you may wish to evaluate the product. We offer a free 30-day trial version that allows you to test SafeCom Pay and software add-on modules. Please contact our local partner to arrange this.

- **SafeCom Pay Trial**  
Allows you to evaluate SafeCom Pay and software add-on modules for 30 days. You have to supply the computer name of the server where the SafeCom server software is to be installed. Contact our local partner to obtain software.
- **SafeCom Go Pay Trial**  
If you have an HP LaserJet 4100mfp and 9000mfp you can SafeCom- enable these to evaluate Pull Print and Copy Control together with SafeCom Pay for 30 days. User identification is by means of a 1-10 digit numeric user code. You have to supply the computer name of the server where the SafeCom server software is to be installed. Contact our local partner to obtain software.

## Add-on Modules

### Pull Print

- Documents follow users to their choice of printer. User identification at the printer is by means of a card and/or code. SafeCom Pay initially allows up to 5 printers to be SafeCom-enabled. To add more printers you simply order the required hardware and printer licenses.

### SafeCom Web Interface

- Users can use a web browser to see their current balance and transactions on their SafeCom account. Users can delete and retain documents pending collection.

### SafeCom Money Loader

- A steel cabinet (safe) equipped with touch-screen, receipt printer, a note acceptor and a coin acceptor. Allow users to deposit cash money to their SafeCom account without the presence of staff.

### SafeCom ePay

- Allows users to transfer money from their bank account to their SafeCom account via the Internet.

### Multi Server Support

- Scalability; multiple SafeCom servers work together to support as many printers and users as required and allow users to roam between locations.

### Cluster Support

- Availability; if one server fails another takes over.

### Administrator API

- An XML-based tool that makes it possible to manipulate multiple users, automate tasks and integrate SafeCom with other systems. Is available in the form of an executable and a dynamic link library (DLL).

## System Requirements

### Server

Windows XP, 2003 and 2000.  
SafeCom License key code.  
Recommended: 1GHz CPU and 512 MB RAM. 1 GB of free disk space.

### Database

The free Microsoft SQL Desktop Engine (MSDE) is distributed with SafeCom. In a SafeCom G2 multi server installation the master server must run Microsoft SQL Server on either a Windows Server 2003 or a Windows 2000 Server.

### Client

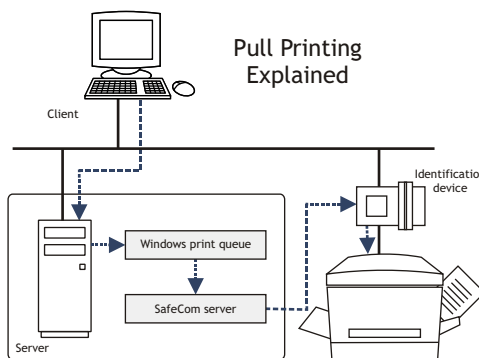
Windows XP, 2003, 2000, NT 4, 98 and clients running Citrix and Windows Terminal Service.  
Recommended: 400 Mhz CPU and 256 MB RAM. 100 MB of free disk space.

**Network protocol**  
TCP/IP.

## Identification Methods

Pull Print requires users to be identified at the printer. Please contact us to hear about other methods than those below:

- User code (1-10 digits)
- Magnetic Card (Track 2)
- EM41xx Proximity Card
- HID Proximity Card
- HITAG Proximity Card
- Indala Proximity Card
- Legic Proximity Card
- Mifare Proximity Card
- NEDAP Proximity Card

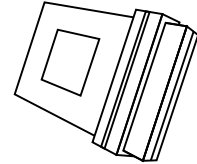


## Printers

Pull Print requires the printer to be SafeCom-enabled.

### External solution

Any printer with a parallel port (IEEE 1284) or network connection can be SafeCom-enabled with the SafeCom Controller and a standalone card reader or SafeCom Front-end (touch-screen and built-in card reader).



### HP LaserJets

The internal SafeCom Go Pay (DIMM) is available for these HP LaserJet printers equipped with HP JetDirect network cards:

- HP LaserJet 4100mfp (\*)
- HP LaserJet 9000mfp (\*)
- HP LaserJet 4200
- HP LaserJet 4300
- HP Color LaserJet 4600
- HP Color LaserJet 5500
- HP Color LaserJet 9500 (\*)

(\*) Features a built-in numeric keypad which allow users to be identified by means of a numeric code.

User interface is integrated into the HP printer's menu structure.

## Copy Control on MFPs

Copy control is supported on selected MFPs from these manufactures:

- Canon
- HP
- Ricoh
- Sharp
- Xerox

The MFP must be networked and in most cases you need a special SafeCom MFP cable. For complete list please refer to *SafeCom G2 Administrator's Manual D60600*.