Transforming Document Workflow in Healthcare

**Paper-based**
- More Patient-Driven
- Proactive Health Management
- Integration of Information at the point of care

**Environment Change**

**Digital Data-based**
- PDFs, e-Docs
- Mobile PCs
- Tablet/Smartphone
- CMS
- E-mail/Messenger

**Substitutions to Documentation**
Market Characteristics

Authorized S/W and HIS Compatibility is Important

Compatibility

- HIS* / EMR* System compatible
- Healthcare Specialized S/W

*HIS: Health Information System
*EMR: Electronic Medical Record

Security

- Apply Multi-layer Security
  (Staff tracking, Security Authentication)
- Authorized S/W

Reliability

- “Reliability”=No Down Time
- Quick A/S Response
- Package Contract
  (Toner+Parts+Services: 29% ↑ vs SMB Avg.)

Vertical Market Specialized S/W Usage

- SMB Avg.
- Healthcare
  [Unit: SA, %]

<table>
<thead>
<tr>
<th></th>
<th>SMB Avg.</th>
<th>Healthcare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage</td>
<td>43</td>
<td>100</td>
</tr>
</tbody>
</table>

Secure Printing Usage

- SMB Avg.
- Healthcare
  [Unit: SA, %]

<table>
<thead>
<tr>
<th></th>
<th>SMB Avg.</th>
<th>Healthcare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>

Service Corresponding Contract Time

- SMB Avg.
- Healthcare
  [Unit: SA, %]

<table>
<thead>
<tr>
<th></th>
<th>SMB Avg.</th>
<th>Healthcare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>26</td>
<td>68</td>
</tr>
</tbody>
</table>

[Samsung B2B Vertical Analysis, Base: SMB AVG. N=720 / CHN SMB AVG. N=240 / Healthcare, N=60 / ITDM, %]
Key Requirements & Samsung’s Solution Offer

Medical information
- Print/Scan Medical Records
- User access control
- Pull print

Privacy & Security
- Network security
- Data encryption
- User access control

Device Management
- Error notice
- Supplies notice
- Usage control

Patient agreement
- Print/Scan forms
- Scan to Server

Patient registration
- Print/Scan Forms
- Scan/Copy ID
- Scan data archiving

Administration
- Print/Scan Receipts
- Print Prescriptions
- Print Insurance Forms
- Scan to Server

SAMSUNG PRINTING SOLUTIONS

Secure Pull Printing

Automated Document Management
(index/Search/Archiving with OCR)

NFC Mobile Printing
Samsung Printing Solutions for Healthcare

Document Workflow
1. Patients visit the hospital and fill out a form
2. Staff scan the submitted form to digitize the patient's information using OCR
3. Doctor searches for the patient's information and treats them accordingly
4. Doctor sends the prescription to a printer from a PC or a tablet
5. Staff prints the prescription using their ID and PW, then calculates the balance and hands it to the patient

Samsung Printing Solutions

Secure Pull Printing
- Send Print Job
- Stored in Device
- Job Encryption
- Multifunction Printer
- Scan
- Metadata

Automated Document Management
- FTP
- Email
- WebDAV
- Printer/Fax
- Folder
- Microsoft SharePoint
- 3rd Party Application
- Database

Active NFC Mobile Printing
- Mobile Device
- Tap NFC tag on a Printer
- Direct Printing on a Printer
Secure Pull Printing

- Enhance document security and reduce waste with pull printing

**Main Feature**
- Secure authentication and release
- Server-less, secure pull printing

**Key Benefits**
- Reduce costs from paper waste and server expenses
- Increase security through user authentication for device access
- Eliminate the costly need for an additional server

**Diagram Description**
- Documents (A, B, C) are stored in a device.
- Authentication is performed.
- Server-less, secure pull printing is facilitated on the same network.
- Printing cost is reduced.
Automated Document Management

- Enhance efficiency, convenience, and security for digital document workflow

**Main Feature**
- Zone and Barcode OCR
- Fax Caller ID
- Mobile printing and custom work forms
- Scan to my email
- Card authentication and SSO support

**Key Benefits**
- Reduce operating costs with improved print environment efficiency
- Enhance user experience through powerful yet convenient features
- Increase document security to provide better data protection
- Accelerate performance with automated functions
- Boost productivity with swifter workflows

---

**Document Workflow**

- Scan / Fax
- E-mail
- Folder
- FTP

- Metadata
- OCR

- FTP
- E-mail
- WebDAV
- Microsoft SharePoint
- Printet
- Folder
- Microsoft SharePoint
- Database
- 3rd Party Application
- Fax
Active NFC Mobile Printing

- Provide efficiency, convenience, and security for direct printing on mobile devices.

**Main Feature**

- **Easy User Authentication**
  - TAP
  - User Authentication Without a Card Reader

- **Secure Release & Pull-Printing**
  - Send Print Job
  - TAP
  - User Authentication
  - Print

- **Easy Installation through NFC Cloning**
  - Get Set-up Info
  - TAP
  - Cloning Set-up
<table>
<thead>
<tr>
<th>Customer’s Pain Point</th>
<th>Samsung Solution</th>
<th>Samsung Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to high dependence on HIS (CH) and EMR (US) systems, customers need a compatible printing solution and clear setup</td>
<td>- Samsung developed a customization connector that can interface with Healthcare HIS and EMR systems through XOA Platform API for its XOA-E model.</td>
<td>XOA Platform</td>
</tr>
<tr>
<td>Long waiting hours due to slow printing / COWs are designated to different floors and printers and are unable to print on undesignated floors</td>
<td>- Using the Secure Pull Printing solution, print the document from a printer without a job in order. Pull the print job of a printer on one floor to another to print remotely.</td>
<td>Secure Pull Printing</td>
</tr>
<tr>
<td>*COW: Computers on Wheels (portable computers that can move from floor to floor)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concerns about leaking private information or exposing viruses to the MFP HDD</td>
<td>- To protect sensitive information on HDD, Samsung provides security authorized solution</td>
<td></td>
</tr>
<tr>
<td>Should be able to manage patient information and explain the subsequent treatment on iPads or Android tablets and print the document on the devices directly/should be compatible with iOS and Android OS</td>
<td>- Provide NFC printing features for Android-based mobile devices and Samsung mobile app for iOS</td>
<td>Active NFC Printing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Samsung Mobile App</td>
</tr>
</tbody>
</table>
Case Study
# Implemented Card Authentication Integration for a Hospital in US

**Country of Origin:** USA

## Profile
The not-for-profit medical practice and medical research group based in Rochester, Minnesota, specializing in treating difficult cases (tertiary care).

**Vertical Market:** Healthcare  
**Business Line:** Hospital

## Challenge
- IT Administrator wanted to implement card authentication by integrating it with their Lightweight Directory Access Protocol (LDAP) server to all MFPs within the facility.
- Requirements included sending scanned document to the logged in person’s folder designated in LDAP.

## Solution
- Samsung installed A3 MFPs, as well as developed the Scan to Home* feature, which easily saved scanned documents to the user’s designated folder. Support for SSO between the Independent Software Vendor (ISV) solution, Secure Solution and MFP, and the in-house solution was also provided to enhance user convenience.

## Benefits
- Easily get user information from the LDAP server and send scanned document to a designated folder.
- Scan to Home* supports SSO with print management login to provide user convenience.

*Scan to Home: Scan to logged in person’s folder designated in LDAP*
# Standardized Print Fleet for a Leading Italian Biopharmaceutical Company

## Country of Origin: Italy

### Profile

One of Italy's leading biopharmaceutical companies, with a solid history of developing innovative drugs for illnesses of high social impact.

**Vertical Market:** Pharmaceutical  
**Business Line:** Health

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Solution</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| - Current print estate is supplied & managed by 5 different vendors (one for HW, Consumables, Paper & Maintenance) | - Samsung instituted A4 mono and color MFPs and A3 MFPs. By installing the A4 and A3 MFPs, Samsung was able to standardize the entire print fleet, replacing the company’s existing devices with Samsung MFPs | - Improved print fleet management  
- Reduced printing costs (estimated reduction exceeded 38% in 5 years)  
- Reduced costs related to paper & toner waste  
- Effective energy saving |
| - Standardize Print Fleet across the two branches                           |                                                                                                                                            |                                                                                                   |
| - Improve Cost Management                                                   |                                                                                                                                            |                                                                                                   |
| - Looking to refresh & integrate the print systems with the existing workspace |                                                                                                                                            |                                                                                                   |
The End