



## About Southern Health NHS

Southern Health NHS Foundation Trust provides community health, specialist mental health and learning disability services for people across Hampshire and its surrounding area.

Serving a population of around 1.3 million people, Southern Health are one of the largest providers of these types of service in the UK. They employ around 8,000 staff who work from over 150 sites across Hampshire, including community hospitals, health centres, inpatient units and social care services.

Last year (April 2011-March 2012), they supported 251,000 people with 1,198,000 community visits, 302,000 outpatient appointments and 267,000 occupied bed days.

Like all Public Sector organisations the Trust was looking to find real cost savings, reduce back office administration, and enhance focus and funding on front line services. They found an answer in an innovative solution awarded via an OJEU let tender available to other Public Sector bodies. It gave them large projected cost savings, back office admin reductions, enhanced service and an inclusive fleet refresh without capital expenditure.

## Before Picture

150 sites that Southern Health Staff operated out of were surveyed. With complex, multi Trust shared sites, and inaccurate records of device locations and capabilities detailed floor walks were undertaken with meticulous recording of information to ensure that the data captured was a true and accurate picture of the trusts current print output fleet, volumes printed, suitability and condition of device and staff usage requirements.

In total the survey identified 1412 printers and 135 copiers and of these there were 250 different makes and models. Also the trust was dealing with 6 different suppliers for printers and copiers.

- Prior to the deployment of the service, the situation with the Trust was as follows:
- Over 250 different types of printer
- Printer ages ranging from a few months, to up to 15 years old, less than 1% still covered by manufacturer's warranty. Over 70% more than 6 years old
- Multiple software drivers being run and supported
- Hundreds of different consumable SKUs requiring ordering and stocking
- High levels of IT calls and device breakdowns
- Low levels of intelligence about device locations and usage levels
- Thousands of orders and invoices to produce and reconcile
- Supplier invoicing not up to date in line with TRUST changes
- Stockpiling of toner, including toner for devices no longer in use

# Southern Health NHS Foundation Trust

Leverage OJEU Let Framework Agreement to guarantee savings via innovative Managed Print and Stationery Service

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## All replacement units offer,

- Full network capability
- Automatic duplex (double sided)
- High speed printing
- Low energy consumption
- The ability to use high capacity toner and ink cartridges
- Standard driver support for IT

## After Picture

After the deployment there are:

- 6 main printer models deployed
- 70% fleet brand new, 30% up to 3 years old
- 30 consumables SKUs
- Single bill per quarter
- Total visibility of all devices locations and usage levels
- High reliability level
- One quarterly invoice, no toner purchase orders required
- 100% fleet covered by warranty
- Automated consumables requesting and shipment
- Automated error and fault reporting
- Vastly improved SLA for device fix or replacement
- Remote access and monitoring of entire fleet

## Trust Benefits

- No capital spend on new and future equipment - **£720,000 worth of equipment is installed as part of the agreement**
- Hitherto unobtainable **VAT reclaim** on service **releasing large Trust funds**
- **Guaranteed annual reduction** on previous agreed total cost of ownership
- Enhanced service levels for staff
- Vendor reduction
- Efficiency savings in large reductions of back office administration
- Automated toner replenishment
- No downtime on MFPs due to toner outages
- One complete and monitored asset register available online at all times. Market value of asset register with documented floor plan worth £30,000.
- Use of only Genuine HP OEM consumables
- **Electricity savings** of **£36,512** over 3 years
- No market price increases
- If Trust reduces printing volume the price can go down



*“HP are providing a Fully Managed Service to the Trust which has two elements; provision of stationery requirements and implementation and management of our printing fleet. The roll-out to replace printing devices across SHFT sites has gone relatively smoothly. This has not been an easy task and there have been challenges, both technical and logistical, to overcome. The partnership and engagement between HP and the Trust has been excellent and this has contributed to the quick resolution of problems that have inevitably occurred. We are starting to see some tangible benefits following the installation of new printers and 50% of MFPs, faster printing and remote monitoring, saving staff time and effort to chase faults and toners. Actual cost savings will take time to come through, however there are indications already that the Trust is reducing paper and consumable costs via better stationery and printer management.”*

**Mike Jenkins, NHS**

*Other Testimonials : Richard Wellcoat, Fiona, Helen Clark, Karl, DoF. David, Sally Banbery, Sheila Kent.*

## Due Diligence Process

To correctly map out the existing fleet, and calculate real running costs an agreed, and documented due diligence process was applied. This methodology delivered extreme accuracy of total cost of ownership of the existing printing and copying infrastructure, and yielded an asset register and information for the Trust with an estimated value of £30,000.

Following an initial scoping meeting with IT and Finance, the team worked with the Trust to project manage the audit process in the following way:

1. In scope locations identified, and electronic floorplans obtained and pre segmented with Trust Ownership boundaries inside buildings prior to floor walk
2. Trust network printers scanned using remote tool
3. Floor walk booked with Trust escort and access requested to all areas
4. Every printer device:
  - a. Visited and recorded
  - b. Marked on electronic map
  - c. Serial number bar code scanned and matched against pre scanned data
  - d. Date of Manufacture of printer recorded
  - e. If device found on pre scanned info, no further action required
  - f. If device not found on pre scanned info usage page printed off and meter reading recorded
  - g. If no usage page available estimate of usage input into Audit tool based on rolling average of all previously visited NHS sites and monthly observed volume for that device
  - h. With each device recording a volume calculation is run - this takes total meter reading, date of manufacture of device + 90 day period, and provides average monthly volume of that device
  - i. User feedback is invited and recorded on their current device to be presented back to the Trust
5. Copier actual meter readings are taken from the control panel, and one from the log book if available to provide average monthly volumes over the period observed
6. Once a site audit is complete a Total Cost of Ownership analysis is run using actual NHS consumables purchase prices, and cost per copy and lease costs of copiers are uploaded into the audit tool to assess costs of copier fleets
7. All of the data is then presented back to the nominated Trust representatives, validated against known Trust invoices and the Quarterly Fixed Fee agreed

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## “Satellite navigation” for the fleet

Every device in the fleet can be pinpointed at any time for the purposes of desk drop consumables supply, physical or remote maintenance, and user driver set up. Volumes can also be tracked and analysed by room or department for trend analysis.

The following data was recorded upon deployment:

- Device make, model & serial number
- NHS asset number (used in the NHS Helpdesk system)
- HP asset number (Site location / room location, e.g. 056-233)
- IP address
- Print queue and driver location
- Physical location on electronic floor plans

## Naming convention for HP Asset Tagging

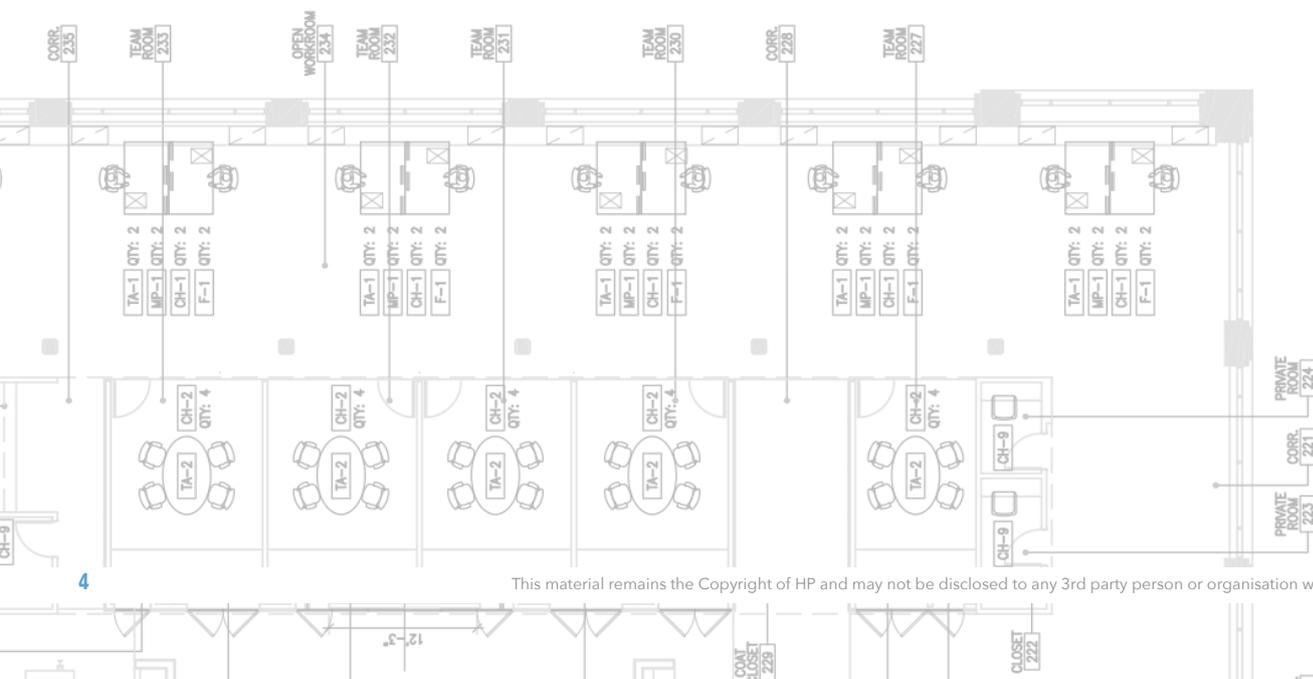
With the Trust operating from 150 sites and each site potentially being multi-trust occupied, it was important to have a system that could locate the exact room for every asset. A naming convention was created that included a 6 digit reference number for each device, split into 3 then 3 numbers, XXX-XXX. These numbers were prominently displayed on labels on each device, providing both a visual reference point for users, but also identifying that this device was “in scope” and being managed.

The **site address** was determined by the first 3 digits of the asset number. For example;

- **056-XXX** = Tatchbury Mount Hospital
- **041-XXX** = Lymington Hospital

The **room address** was determined by the second 3 digits of the asset number. To identify whether a device was either new, or existing, numbers 001 to 099 were assigned to existing devices, and 100 to 199 to new devices. This would simplify support and warranty work at a later stage. For example:

- **XXX-023** = 23rd existing device retained on that site, installed in room “x”
- **XXX-123** = 23rd new device installed on that site, installed in room “y”





## How helpdesk agents use the fleet “Sat Nav”

With the simplest of information provided by the user (number on the front of the printer), a support agent can find everything needed to pinpoint the device location, check its status and instantly diagnose faults. They can even perform remote repairs.

Support Call Example: Call placed for printer 041-133 via telephone or email.

The support agent knows that this is a device covered by the Managed Print Service in:

- 041 = Lymington Hospital
- 133 = a newly installed device

The agent then looks up details of the asset on the remote monitoring system:

A quick check can be made on whether the device has reported any faults by simply selecting the asset on screen.

**Device identification**

| Item          | Value                        |
|---------------|------------------------------|
| Project       | Main                         |
| Zone          | 041 Forest Assessment Centre |
| Model         | LaserJet M4555 MFP           |
| Sticker       | 041-142                      |
| Serial #      | CN2TC330YL                   |
| Host name     | ?                            |
| IP address    | 10.205.144.184               |
| MAC address   | 3C492B49152                  |
| Lifetime Imps | 33050                        |
| Last updated  | 2012-08-07 22:55             |

**Consumable Levels**

| Description                                 | Position | Percent remaining | Lifetime impressions | Last read        |
|---|----------|-------------------|----------------------|------------------|
| BLACK CARTRIDGE 390X HP CE390X              | 1        | 0                 | 32011                | 2012-08-01 13:16 |
| MAINTENANCE KIT HP 110V-CE731A, 220V-CE732A | 2        | 100               | 33051                | 2012-08-08 09:49 |
| DOCUMENT FEEDER KIT HPCE248A                | 3        | 100               | 33053                | 2012-08-08 13:49 |
| STAPLER 1 HP C8091A                         | 4        | 100               | 33053                | 2012-08-08 13:49 |

**Alerts**

| Date             | Reason                          | Crit. level |
|------------------|---------------------------------|-------------|
| 2012-08-07 18:37 | BLACK CARTRIDGE LOW             | 3           |
| 2012-08-26 15:24 | LOAD TRAY 4 PLAIN A4 210x297 MM | 3           |
| 2012-08-26 15:24 | TRAY 2 OPEN                     | 2           |
| 2012-08-26 15:24 | TRAY 3 OPEN                     | 2           |
| 2012-08-24 12:30 | LOAD TRAY 4 PLAIN A4 210x297 MM | 3           |
| 2012-06-05 16:44 | 31.01.02 JAM IN DOCUMENT FEEDER | 4           |
| 2012-04-25 10:04 | LOAD TRAY 4 PLAIN A4 210x297 MM | 3           |
| 2012-04-20 12:35 | LOAD TRAY 5 PLAIN A4 210x297 MM | 3           |

**Media handling**

| Description             | Capacity | Remaining  | Media | Media type | Media unit | Media weight | Status code | Model  |
|-------------------------|----------|------------|-------|------------|------------|--------------|-------------|--------|
| Output (No description) | 650      | Not stated |       |            | Other      | Not stated   | Not stated  | CE735A |
| Output (No description) | 125      | Not stated |       |            | Other      | Not stated   | Not stated  | CE736A |
| Output (No description) | 125      | Not stated |       |            | Other      | Not stated   | Not stated  | CE736A |
| Input 1                 | 100      | 0          | Any   |            | Sheets     | Not stated   | 9           | 3      |
| Input 2                 | 500      | Not stated | Plain |            | Sheets     | Not stated   | 0           | 4      |
| Input 3                 | 500      | 0          | Plain |            | Sheets     | Not stated   | 9           | 5      |
| Input 4                 | 500      | Not stated | Plain |            | Sheets     | Not stated   | 0           | 0      |
| Input 5                 | 500      | Not stated | Light |            | Sheets     | Not stated   | 0           | 0      |

**Most recent page counts**

| Description     | Value | Last read        |
|-----------------|-------|------------------|
| LIFETIME        | 33050 | 2012-08-07 22:55 |
| Mono simplex A4 | 13448 | 2012-08-07 22:55 |
| Mono duplex A4  | 9763  | 2012-08-07 22:55 |

**Print history summary**

| Period | Size     | Mono simplex | Mono duplex | Colour simplex | Colour duplex | Mono scan | Colour scan |
|--------|----------|--------------|-------------|----------------|---------------|-----------|-------------|
| Day    | Standard | 0            | 0           | 0              | 0             | 0         | 0           |
| Week   | Large    | 0            | 0           | 0              | 0             | 0         | 0           |

Customer: hitsent | Contract: hitsent

Device Search

Search for:  in:

Sort by:

Then by:

Then by:

Then by:

Rows per page:

Instantly the agent can confirm room location and site address, model type, IP address, serial number, NHS Asset number, volumes, NHS IT team supporting.

Showing 1 to 1 of 1 device found matching your search criteria

| Zone                 | Database ID | Model            | IP             | Hostname                  | Asset   | Serial     | Sticker | Deleted | Lifetime Imps | Last Updated        |
|----------------------|-------------|------------------|----------------|---------------------------|---------|------------|---------|---------|---------------|---------------------|
| 041 Room 16.31 X-Ray | 1000449     | LaserJet P2055dn | 10.205.142.218 | np194431.swhitsent.nhs.uk | 041-133 | CNC1778512 | 39842   | N       | 852           | 2012-10-25 22:58:50 |

Now the IP Address of the device is known the agent can remotely connect to the printer's admin facilities by entering this into the address bar of a web browser. Here system checks and upgrades can be performed.

HP Color LaserJet CM6040 MFP Series

Configure Device

Select A Menu

- Information
  - Default Job Options
    - Default Options for Originals
    - Input Adjustment
    - Default Copy Options
    - Default Fax Options
    - Default Mail Options
    - Default Send to Folder Options
    - Default Print Options
- Time Scheduling
- Management
  - Folder Setup
  - Device Behavior
  - Print Quality
  - Troubleshooting
  - Security
- Support

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## How users use the fleet “Sat Nav”

With so many devices networked one of the key benefits is shared use for increased capacity, enhanced reliability and access to features such as colour, A3 and stapling / sorting and booklet making. On the front of each printer are instructions on where to find the printer driver with details on how to connect to it and install it. Users then simply make a note of the NHS Asset Number on the device, and use this to identify that particular printer when at their PCs. Double clicking on the asset number on screen installs the printer driver and connects the user.

## How toners / consumables deliveries use the fleet “Sat Nav”

Every device is set to call for a new toner when either 5 percent or 5 days use is remaining, whichever is the sooner. A special email address receives the toner requests, and each email contains all details required to identify the device, its location, the toner part number to be shipped, the percentage of the cartridge left, and the estimated number of days remaining based on current rate of use.



| Zone 056: Finance Corridor First Floor 8 Sterne Road |           |                           |          |                    |          |                 |               |                  |         |                |
|--|-----------|---------------------------|----------|--------------------|----------|-----------------|---------------|------------------|---------|----------------|
| Asset  | Serial    | Model                     | Cons sku | Description        | Quantity | Request Reason  | Request Dated | Request actioned | Level % | Est. days left |
| 056-218  | JPDTCQ998 | Color LaserJet CM6040 MFP | CB387A   | MAGENTA IMAGE DRUM | 1        | TONER GOING LOW | 2012-10-25    |                  | 8       | 8              |

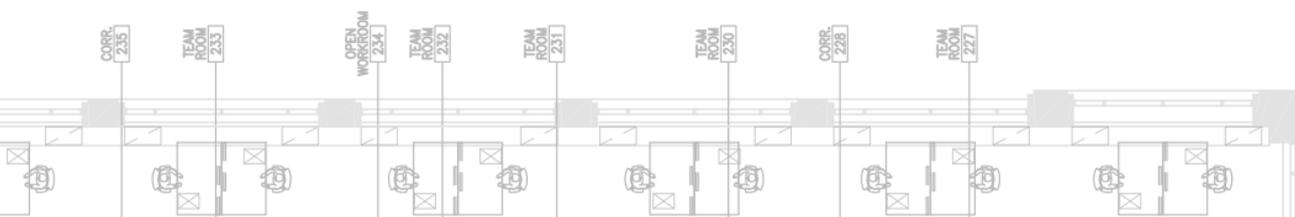
  

| Zone 056: Inner Corridor Rufus Lodge |           |                           |          |                      |          |                 |               |                  |         |                |
|--------------------------------------|-----------|---------------------------|----------|----------------------|----------|-----------------|---------------|------------------|---------|----------------|
| Asset                                | Serial    | Model                     | Cons sku | Description          | Quantity | Request Reason  | Request Dated | Request actioned | Level % | Est. days left |
| 056-217                              | JPDTCQ998 | Color LaserJet CM6040 MFP | CE254X   | BLACK CARTRIDGE 647A | 1        | TONER GOING LOW | 2012-10-25    |                  | 14      | 9              |

| Zone 056: Room 1 IT Training Room Sycamore Lodge |            |                 |          |                 |          |                 |               |                  |         |                |
|--|------------|-----------------|----------|-----------------|----------|-----------------|---------------|------------------|---------|----------------|
| Asset  | Serial     | Model           | Cons sku | Description     | Quantity | Request Reason  | Request Dated | Request actioned | Level % | Est. days left |
| 056-017  | CNBW5B73KR | LaserJet P2015n | Q7553X   | BLACK CARTRIDGE | 1        | TONER GOING LOW | 2012-10-25    |                  | 9       | 209            |

The remote management system allows consumables items to be selected for despatch, and creates itemised delivery notes for each site, detailing exact room numbers for desk drop service. Once the consumables have been despatched the system will flag that the request has been actioned. As soon as the item is installed in the device the system will indicate that the request is now complete.



## How on site engineers use the fleet “Sat Nav”



■ Unique Device ID Numbers

With so many devices networked one of the key benefits is shared use for increased capacity, enhanced reliability and access to features such as colour, A3 and stapling / sorting and booklet making. On the front of each printer are instructions on where to find the printer driver with details on how to connect to it and install it. Users then simply make a note of the NHS Asset Number on the device, and use this to identify that particular printer when at their PCs. Double clicking on the asset number on screen installs the printer driver and connects the user.

Customer: hitsent | Contract: hitsent

Device Search

Search for: 056 in: Asset #

Sort by: Model Rows per page: 25

Then by: Serial #

Then by: Sticker #

Then by: IP Address

Search



Using mobile smart phones engineers can access the remote management system to identify devices on site and track error codes.

By using the search facilities an engineer can find all devices in a site (types in location ID), then sort them as required. This allows pro active checks on other devices whilst on site.

