

MISL Case Study –Royal Free London NHS Foundation Trust

MISL has been contracted to carry out one of the largest and most ambitious medical records scanning projects in the NHS for the Royal Free London NHS Foundation Trust (Royal Free). The project is to scan in a back file of over 550,000 historic paper medical record files together with all paperwork generated each day at the Trust going forward. MISL has completed scanning over 360,000 records to date since commencing scanning in April 2014. The project go live date was November 12th 2014 and by Christmas 2015 all the back scanning of medical records will be completed, a full two years and four months ahead of schedule. MISL is delivering the project from a dedicated scanning facility in Hoddesdon, Hertfordshire with a team of 110 staff working 24 hours a day, 5 days per week over 3 shifts. The project is proving to be a huge success and is testament to the way in which MISL has worked with the Trust and other suppliers to design and implement the most effective project process.

The Challenge

The principle challenge for the Royal Free, in light of the call to move to paperless care provision in the NHS was to convert a huge quantity of legacy paper medical records within the Trust so that they could be accessed and viewed securely in tandem with their Electronic Patient Record System (EPR) Cerner Millennium. The paper records were taking up significant space at the Hospital and making them available digitally would not only free up the space but also ensure that all the correct care record information is viewable when required throughout the patient journey. In addition the Trust identified that around 30,000 new pages of medical record information were being generated on a daily basis which would need to be captured within 24 hours in order for the electronic patient record to have continuity.

The procurement

Royal Free decided to tender for the two main aspects of the project separately. These were for a scanning service under the ESPO 390 framework contract for document scanning services and for an Enterprise Document and Records Management System (EDRMS). After the procurement process MISL was awarded the contract for scanning services and the EDRMS contract was awarded to OpenText.

Project Design

At the beginning of the project planning process the Royal Free were quick to introduce the different suppliers and begin intensive planning and testing of processes. MISL was very active in this process and was forthright in providing advice and support as to how the production process should be designed. From the tender stage many of the project parameters were defined but there was room for adjustment of specifications to suit particularly the interaction between Cerner and OpenText and the ingesting of scanned documentation from MISL.

MISL adopted a collaborative and supportive approach to the project design phase so as to enable the best possible outcome for the Trust. The most challenging aspect of the planning was designing an approach for the effective gathering and tracking of day forward documentation so as to ensure

the Trust's compliance with the BS10008:2014 process for legal admissibility of information stored electronically.

MISL's technical team helped design a process with barcoded header sheets to enable the automatic indexing of a group of documents that had first been generated by open text, had then been used in a clinical context and had finally been collected by MISL for scanning back into the EDRMS.

With a project of this scale and criticality the only route to a successful outcome is for the various parties to work together with flexibility and to assign knowledgeable personnel to the planning team.

The MISL process

MISL designed the project internally to function from a single, secure and dedicated industrial unit in Hoddesdon, Hertfordshire. The unit was procured and fitted out to the highest security standards to incorporate the storage of documents pre and post scanning together with the production area. The unit was subject to significant building work and security systems were installed together with 2 dedicated and secured fiber-optic data links to the Trust to enable the transfer of scanned data.

MISL also recruited many new staff for the facility to be trained by, and to work alongside, the already experienced core MISL scanning team.

Scanning production began in April 2014, a full 6 months in advance of the project go live date to enable the workforce to be fully trained in the standards required and to build up their capability to expected throughput speeds.

The headline process involved the following steps:

1. Collection of 2 consignments of medical records per day
2. Validation of consignment inventories
3. Document preparation
4. Scanning of Back file and day forward documentation to 300dpi 24-bit RGB colour multi page TIFF files
5. 100% on screen QA of scanned pages
6. A further 10% Page to Image QA of the scanned records
7. Data Upload to OpenText
8. Further QA by the Trust
9. Secure storage of the scanned paper files by MISL for 3 months post scanning
10. Secure destruction of authorised batches of scanned files to the BS15713:2009 standard for secure destruction.

The scanning is carried out on Kodak i5600 and i5800 manual feed document scanners (8 in total).

The scanning task is split into 3 streams of activity. For Back file scanning there are 2 turnaround times; 5 days for normal turnaround and 24 hours for on demand scanning. MISL has separated the production teams to service these two turnaround times. In addition all day forward paperwork is scanned to a 24 hour turnaround.

The back file scanning process generates multi page TIFF files for the divided sections within a historic medical record file at the Trust, this is in order to replicate the paper file in terms of sequence and content. For the day forward paperwork individual documents are scanned and

identified for patient and document type. This enables a far more granular access to data from go live onwards on the part of the clinical teams at the Trust.

MISL's scanning and validation processes are monitored by a production management system that yields daily reports to the Trust about progress and throughput in forensic detail. This high level of communication and transparency has maintained a very positive working relationship and has kept the project on track.

In the early months of the project the MISL project manager was situated at the Royal Free for several weeks so as to be 'on the ground' to resolve any issues or last minute changes to processes that were required. Weekly project update meetings have continued throughout the project.

On a daily basis the MISL team continues to process around 140 boxes of back file scanning per day (equating to 350,000 pages or 700,000 page images) of back file paperwork.

For the day forward scanning MISL processes on average 11 boxes per day of documents (equating to (27,500 pages or 55,000 page images)

The back file scanning portion of the project was originally intended to be completed within a 4 year period. On the basis of the over 360,000 back file records scanned so far (from the total of approximately 550,000) and current production rates the back file scanning will be completed by the end of December 2015.

This projected end date will mean the back file will have been scanned within 20 months. This means that the largest part of the project will be completed 2 years and 4 months ahead of schedule. The day forward scanning process will continue for the remainder of the contracted project duration.

Conclusion

The Royal Free scanning project is proving to be a huge success for the Trust and for MISL. The way in which the project has been managed and designed along with the level of resourcing and dedication that MISL has committed to the resource have resulted in a project that will be completed well ahead of schedule.

After being awarded the contract MISL set about the planning process in a flexible and collaborative way acknowledging that a project of this scale would require special treatment and care. The results have been a tremendous amount of paperwork processed for the Trust to date and a high quality output.

The independent QA of the scanned documents carried out by the Trust has demonstrated the quality of MISL's scanning services and have resulted in the Trust authorising past scanned batches to be securely destroyed.

The scanned data is being used on a daily basis within the Trust and has already become integrated into daily clinical care provision. This project, even on the basis of the work completed to date, is an example of how to convert large quantities of medical records paperwork into a digital form in the right way. The benefits in terms of freeing up space and also making sure the right information is available at the right time in a clinical setting are significant.

Statement from the Royal Free London NHS Foundation Trust:

“MISL is our strategic partner for the scanning of our legacy case notes as part of our project to digitise medical records across the Trust. The Trust had previously worked with MISL on a smaller scale to archive patient notes, but the scale of this project was bigger than either MISL or the Trust had undertaken before. MISL and the Trust worked together closely to determine the workflows from medical records to the scanning bureau to allow the timely scanning of both historic notes and paper content being generated through clinical contact on a daily basis.

As with any large scale project, there were issues, especially at go-live, but MISL were extremely proactive and professional in working with the Trust team to overcome these issues.

After 6 months of live running, availability of scanned notes is higher than the availability of paper notes before the system went live, and every day MISL are able to ensure that every set of notes sent to their bureau has been scanned and uploaded to the EDRM system.”

Will Smart

Director of IM&T at the Royal Free London NHS Foundation Trust

Statement from MISL:

“At MISL we are delighted that the project with the Royal Free has proved to be such a success. We decided at the outset to do whatever it took to make the project work and our levels of investment and staffing commitment are testament to that.

At MISL we believe passionately in designing projects that suit the widely differing needs of our customers and to work on a project of this scale requires that approach in order to be successful. This project will serve to underline MISL’s reputation in the medical records scanning space and we look forward to working closely with the Royal Free and other NHS organisations ongoing.”

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