

Responding to system outages: NHS Trust acts quickly to preserve patient data with RPA



In response to a nationwide system outage affecting all its teams, South London and Maudsley NHS Foundation Trust (SLAM) was able to maintain excellent patient experience with the use of [robotic process automation \(RPA\)](#) in data recovery. As the Trust provides inpatient care for over 5,000 people, as well as treatment for over 40,000 patients in Lambeth, Southwark, Lewisham, and Croydon every year, it was essential the Trust responded quickly.

The Challenge

The Trust operates a single electronic patient health record (EPR) system, CareNotes, across all of its services – underpinning multiple other systems that couldn't function without it. In August 2022, a cyberattack was detected, causing the CareNotes supplier to halt all external access to its network to prevent further damage.

This impacted healthcare providers across the UK – including SLAM, whose clinicians were unable to access patient records or interfaces that relied on the system. A total of **51 wards, 400 community teams and over 8,000 clinical users were affected**, meaning a timely response was imperative.

The Trust rapidly created a temporary system, allowing clinicians to access patient records shipped from the supplier. It also developed a new application, ePHR, to facilitate the recording of patient notes in a structured manner.

Within six weeks, CareNotes was restored nationally. However, the Trust's ePHR app had **already recorded over 168,000 clinical notes** – all of which needed inputting back into the system. Migrating this information manually would likely take several years, carrying risks such as data loss and inputting errors.


The Solution

The Trust had previous experience with RPA and had already

Key Benefits

- Delivery of safe patient care
- Avoidance of clinical risk & data loss
- Significant time savings
- Preservation of patient information & experience
- Quick response to a national system outage

RPA was crucial in restoring patient healthcare data in a safe, secure, timely and efficient way onto the patient's health record. It was time-stamped, which also allows easy traceability.

 Dr. Barbara Arroyo
CCIO





worked with NDL on several other projects, including [updates to the National Immunisation Vaccination Service during the Covid-19 crisis](#). As the Trust had already collected information in a structured manner, 25 Automate Bots were able to move records from the Trust's ePHR app back into CareNotes. Emulating human interaction with its systems, the bots were able to securely migrate the patient information as a person would – interacting with CareNotes through clicks and keyboard strokes.

The Benefits

While the Trust was proactive and secure in its response to the national CareNotes outage, it understood manual migration from its ePHR app back into CareNotes would be prone to error and clinical risks. Automate allowed SLAM to negate these, with rule-based automation incapable of human error.

This method has provided the Trust with a number of benefits; the most important being the delivery of safe patient care. Despite the disruption caused to clinicians throughout the outage, they were able to continue care with data remaining secure and accessible. Without such a quick response, the Trust would have been susceptible to clinical risks and difficulties in reporting key information to local commissioners.

SLAM was also able to avoid significant administrative burdens with the use of RPA. If the Trust completed the data recovery manually, it's estimated it would have taken the Trust's team around 5 minutes per record – where Automate bots could input them in an average of **45 seconds**. At peak processing time, Automate Bots were reaching **24 records processed per minute**.

While the Trust's data recovery is currently ongoing, SLAM has already completed around 75% of the recovery. During the first stage of the process, bots were able to process around **1,300 records every hour**. This has allowed the Trust to remain focused on the work that really matters, despite the impacts of the outage.



Running a complex Digital Service, we need relationships with suppliers who give more than the value of an order. NDL has stood shoulder to shoulder with the trust and provided excellent services to support the recovery within South and Maudsley. We can't thank the team enough for their support through this really difficult time.



Stuart MacLellan
CIO



What's Next?

As an organisation well into its digital transformation journey with Automate, the Trust is constantly identifying new applications for RPA – with its next project focussing on the processing of mental health data collected in digital questionnaires.

For more information about SLAM's projects, or to learn how Automate and the wider [Evolve Digital Transformation Platform](#) could benefit your public sector organisation, don't hesitate to get in touch with a member of the team. To learn more, visit our library of public sector [success stories](#) – or join us at one of our upcoming [online and in-person events](#).

