Transforming the NHS with NEL - Azure Data Migration





Improving Data Insights for Patients & Healthcare Professionals

NEL engaged Version 1 as part of a co-funded project with South West London (SWL) to migrate a number of shared datasets to Microsoft Azure.

This project would enable NEL's clients (such as South West London) to access the same datasets from multiple sites simultaneously and securely. As a result, NEL now has a more secure, transparent and accurate source of data for patients and caregivers alike.

Challenge

From hospitals through to primary care GPs, NEL covers a population of 16 million people across 42 clinical groups and manages more than £10bn of NHS Contracts. NEL's client SWL (South West London) engaged NEL to carry out this project, as SWL was aware of inconsistencies and challenges with the current data set-up.

The existing methods involved ageing technologies and cumbersome data processes for managing and storing data. This was costly to maintain and manage, and quite inflexible to change. It was clear that data might be pushed 30-40 times or more. Data Flow Specialists could find themselves pushing over 3000 flows to multiple databases, with the same or filtered versions duplicated over 30 times. This was time-consuming and threatened to introduce inaccuracies to the data – and by definition, it meant data was out of date by the time it reached the end-user. There was no leeway for human-error because corrections would have to be repeated the same number of times. This wasn't sustainable for NEL, and maintenance was very difficult.

What lead NEL to choosing Version 1 as a partner for this project was that we needed an expert in Microsoft Azure who would understand our systems and bring the knowledge and experience to help us move into a new environment. We worked out a hybrid and flexible model to develop and learn from Version 1 at the same time. For the last couple of years, we've been looking at Product Management and Service Development, trying to align to Agile methodologies. So, Version 1's expertise in Project Management was very helpful and beneficial. Version 1 also introduced us to Azure DevOps, helped us set up boards and get a system in place for daily stand-ups and sprint planning. This really helped us implant Agile in the day-to-day. It helped us create time by prioritising resources between critical and 'business as usual' work.

- Tamas Szeredi, Head of Service Development, NEL

Solution

NEL engaged Version 1 to migrate a number of shared datasets to Microsoft Azure. This would enable NEL's customers (such as SWL) to access the same datasets from multiple sites simultaneously and securely.

Working in collaboration with NEL, Version 1 began by migrating the shared datasets to Microsoft Azure, creating a single point of access for multiple sites across the NHS. This also came with benefits to security, access right and device agnosticism.

The project was run Agile – in Agile development, testing is integrated during the cycle, which means that there are regular check-ups to see that the product is working during the development. This approach enables the product owner to make changes if needed and the team is aware if there are any issues.

The NEL team was working in a Waterfall style and were aware that the Agile approach would be much more efficient and effective. NEL worked with Version 1 to set up the project team with the knowledge and skills to implement this methodology across the organisation.



Real Difference, Delivered

NEL now has the capacity to scale its services to support multiple NHS sites from the same solution, including, but not limited to:

- » NHS Commissioning Units and STP's
- » Care Providers
- » GP Clinics
- » Mental Health Services

NEL's clients (such as SWL) will now have access to the same datasets from multiple sites, both simultaneously and securely.

With real-time access to aggregated data, caregivers are now able to act with a more preventative strategy, instead of ending up reactive to patients' problems as they come in. They can identify trends such as repeated A&E attendees who should be funnelled to different teams.

NEL can spend more time supporting them on analysis and visualisation of the data – and even develop more insights through Machine Learning and Al.

NEL now has a more secure, transparent and accurate source of data for patients and caregivers alike.



The Benefits for Patients and Healthcare Professionals

Tamas Szeredi, Head of Service Development at NEL explains the benefits of this project for patients and healthcare professionals:

Patients

For patients, the system approach can shift from reactive to proactive. Getting real-time data and connecting it with different systems allows clinicians to make better decisions. Both patient and caregiver can get an overall picture of data across any device. Meanwhile, hospitals can be given the ability to analyse activity across the system instead of only seeing restricted information. This increases the number of patients who can benefit from predictive interventions and save them the need to go to the hospital if the condition is allowed to continue."

Healthcare Professionals

For healthcare professionals, the benefits lie in how the current providers and commissioners are working together, and how they can support an integrated system. Because it had run through several systems, by the time the data had been processed and had reached its destination, you couldn't always guarantee that we were looking at the same thing. This meant a lot of time was spent reconciling and confirming information. With the new system in place, we can grant them permission with secure governance through an Office 365 account and internet connection. It makes the system transparent and the data more trustworthy. This allows greater transparency between data sets and between different organisations. During the proof of concept project at St Georges Mental Health, we learned the importance of seeing more information. Even in aggregate form, it has helped them to identify patients attending A&E daily for support, who could have been prevented and treated earlier if the right team and care were identified sooner."

- Tamas Szeredi, Head of Service Development, NEL



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