**WinPath Enterprise Case Study**

**Leading Bristol Health Trusts’ Innovative Networked Pathology Service**

**Background**
Pathology providers in Bristol, South Gloucestershire and North Somerset recognise the importance of being able to provide universal access to pathology results across the healthcare community, and so have come together and procured an integrated LIMS (Laboratory Information Management System). North Bristol NHS Trust (NBT) in partnership with University Hospitals Bristol NHS Foundation Trust (UH Bristol), Weston Area Health NHS Trust (WAHT) and Public Health England (South West Public Health Laboratory) began a joint procurement process to secure a single system capable of delivering all pathology services for all local service providers.

NBT and PHE have also collaborated to form Severn Pathology, which is uniquely comprised of all routine pathology services as well as a fully integrated regional genetics laboratory. A regional gynaec-cytology screening service, regional PHE virology laboratory, regional neonatal screening service and a national mycology and antimicrobial reference laboratories complete the Severn Pathology picture. With Public Health England being a key partner and the investment and building of a new laboratory building, Severn pathology will see the creation of the largest Infection Sciences service in the UK.

With the involvement of multiple partners and four organisations a methodology of cooperative working and involvement of all stakeholders is essential. As such, the competitive dialogue process was open and remains open to all partners, current and future, allowing the collaboration to develop their service further to incorporate other organisations.

**Tendering exercise**
The CliniSys solution was selected to deliver an integrated laboratory information system for all areas of pathology following a competitive tender and evaluation process involving all four organisations.

David Gibbs, Pathology Services Manager for NBT said: “With multiple parties involved this has been a complex procurement. The laboratory information system is seen as a vital component to achieve the project aims, to have an integrated, high quality pathology service that maximises innovation and technology and drives efficiencies and effectiveness. We chose the only supplier with proven credentials in delivering a multi-site solution with the ability to provide the necessary levels of functionality and flexibility to all aspects of the service.”

David continues “The importance of getting the procurement phase right and investing the maximum amount of time should not be underestimated as it sets the scene for the whole project. We employed a competitive dialogue tender process which necessitated that we worked closely with all prospective suppliers and involved all stakeholders”.

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**COLLABORATION**
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**Collaborative working**
The project team has maintained a common approach throughout the project with the deployment of a single instance of a single LIMS with test codes set up identically across all sites. This standardised approach to test and reference range configuration has not only helped to drive the project forward but also supports NHS England’s drive for standardisation in improving patient interpretation of results.
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COOPERATIVE WORKING
“We’ve adopted an inclusive process with all organisations being represented which maximises project buy in and helps to ensure that no one feels that they are being taken over”
Dr Rob Pitcher, Joint Clinical Lead for Cellular Pathology

“The new system will enable pathology across Bristol and Weston to work together in a more collaborative fashion than previously possible. This will result in an enhanced service for the clinicians and therefore the patient and is a great example of pathology across four organisations providing a seamless service for the people we serve.”
Mark Orrell, Head of Service, Cellular Pathology, UH Bristol

MANAGED SERVICE
“The need for the provision of a resilient managed service soon became apparent to ensure business continuity. The managed service approach also helped reduce the amount of effort and resources required from our already over utilised IT teams”
David Gibbs – Pathology Services Manager

Collaborative working
Having a solution that can also be tailored to a specific site’s workflows and yet maintain a single multi-site networked solution was essential. David Gibbs says “Our partners are of different sizes and have different priorities and requirements and so the flexible nature of the WinPath system was seen as huge benefit”. The partnership covers a wide range of organisations, from Weston General Hospital, the smallest DGH in the UK, to NBT and UH Bristol, large teaching hospitals and tertiary centres along with the regional and national service of PHE Bristol. David continues “With such a varied collaboration of organisations, a certain amount of compromise is inevitable. This has been kept to a minimum due to the flexible nature of the WinPath system and its ability to allow different tests to be set up if absolutely necessary i.e. where test method is significantly different at different sites. If a request for a different code is made then it is reviewed clinically and placed on an exception list - luckily this has been very few and far between”.

To maintain the group’s cooperative working approach, a cross organisational board meets regularly to monitor the project’s progress. This is chaired by Dr Rob Pitcher, Joint Clinical Lead for Cellular Pathology across UH Bristol and NBT and comprises project leads, laboratory managers, clinical leads and IT representatives from all organisations. Dr Pitcher states “We’ve adopted an inclusive process with all organisations being represented which maximises project buy in and helps to ensure that no one feels that they are being taken over”.

To mitigate any risk and to keep the project on track, an escalation board is also in place which only meets by exception. This clinically focused group is chaired by Dr Richard Bridle who comments “It is testament to the excellent project management and collaborative working that this escalation board has not needed to be convened to date”.

Mark Orrell, Head of Service, CellularPathology, UH Bristol comments: “The new system will enable pathology across Bristol and Weston to work together in a more collaborative fashion than previously possible. This will result in an enhanced service for the clinicians and therefore the patient and is a great example of pathology across four organisations providing a seamless service for the people we serve.”

Patient Governance
The project recognised the challenges with patient identity due to the fact that hospital numbers are not guaranteed to be unique across the four organisations involved. With a single service provider covering multiple sites, samples can originate from different locations and the WinPath solution of assigning an Authority was seen as crucial where NHS number is unknown and a unique identifier is required.

With the clinicians needing to see the whole patient record, a patient centric LIMS was seen as an advantage. “The WinPath patient layer is a unique approach to patient data governance as it combines all the benefits of an event based patient record with the benefits of a patient centric layer” comments David Gibbs. “Having a simple and user friendly solution to handle the complexity of managing the patient record across four organisations was seen as a mandatory requirement in the selection process”.

The local health care organisations have proven experience in employing easy and appropriate access to patient data via the use of a clinical portal; Orion’s “Connecting Care”. It provides access and ease of interpretation across all four organisations for CCGs, social care, mental health, and all instances of care. A single dataset / medical record is maintained with full patient history via this portal which is fed from the WinPath LIMS.

Electronic links and the electronic routing of work between the participating organisations within and outside the network is an essential requirement. CliniSys’ proven Lab2Lab solution and the ability to connect to NPEX was a key differentiator in the decision making process.

Managed Service
System resilience was an extremely important requirement in the tendering exercise and also factored highly in the decision making process. The CliniSys solution will provide a fully managed hosted service via Capita Healthcare Decisions which will deliver the necessary platform and infrastructure to ensure that the required levels of availability, scalability, flexibility and business agility are supplied. The Hosted Service is located across two identically configured delivery platforms that are connected by a scalable and triangulated network.
**INTEGRATED GENETICS**

“This project marks the first case in the UK where genetics will be fully incorporated into the network wide laboratory information system and operate on the same platform as all other pathology service users.”

*Fiona Pearson, CliniSys Chief Executive Officer*

**PROJECT PLANNING**

“Our strategy of inclusion is paying dividends and continues to help us keep on schedule to meet the latest agreed project timetable. CliniSys has worked with us to meet this timescale in a true partnership way of working”.

*David Brixey, LIMS project manager for Severn Pathology*

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**Managed Service**

By siting load balanced and paired servers in the two geographic locations, a complete site wide failure is only capable of disabling one of the data centres, meaning the second data centre can still deliver the service.

All network devices are duplicated and deployed in High Availability pairs with automated monitoring and failover, and should a network between the customer site and the data centre break then the connection can be resumed in a heartbeat. This is achieved via millisecond path switching connectivity with the second data centre ensuring that failure is not visible to the service user.

David Gibbs comments “Involving our IT departments early in the procurement phase was essential so that we could accurately identify all requirements, detect current limitations and ensure we gained crucial buy in. The need for the provision of a resilient managed service soon became apparent to ensure business continuity. The managed service approach also helped reduce the amount of effort and resources required from our already over utilised IT teams”.

**Integrated Genetics**

Another key requirement of the project is the need to incorporate the Bristol Genetics Laboratory on the same platform as the routine pathology service. Bristol Genetics Laboratory is a leading centre for cytogenetic and molecular genetics disciplines which delivers a wide range of genetic analysis services to the UK and internationally.

David Gibbs says: “Genomics technology will drive innovation across diagnostics and will require genetics departments to work in close collaboration with other pathology disciplines. Having Bristol Genetics Laboratory truly integrated with the rest of the pathology service and on the same laboratory platform is essential to offer the necessary clinical benefits”.

Fiona Pearson, CliniSys Chief Executive Officer said: “CliniSys is proud to announce that this project marks the first case in the UK where genetics will be fully incorporated into the network wide laboratory information system and operate on the same platform as all other pathology service users.”

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**Project Planning**

With an ambitious timetable, CliniSys were quick to appoint their dedicated Prince 2 certified project manager, Kevin Hall, and the selection of the deployment team. The kick off meetings and project governance have already been completed; the project will follow CliniSys’ proven framework of high level design, low level design, validation testing, user acceptance testing through to go live. The Bristol board and CliniSys have agreed on an ambitious 13 month implementation phase with a go live date of mid June 2015.

Kevin Hall states “CliniSys is encouraged with the engagement and buy in from all Bristol and Weston stakeholders which will help drive the project to a successful completion. We have already developed a great working relationship with the team and the clearly defined project scope and involvement of excellent personnel in all areas from the project board through to the implementers promises to deliver an exemplar project”.

David Brixey, LIMS project manager for Severn Pathology, states “Our strategy of inclusion is paying dividends and continues to help us keep on schedule to meet the latest agreed project timetable. CliniSys has worked with us to meet this timescale in a true partnership way of working”.

**Looking Ahead**

Severn Pathology and the collaboration is planning many more projects where the success of the WinPath LIMS deployment is an enabler. These include the new laboratory build for NBT which represents a £17M investment. A collaboration with Public Health Bristol to bring infections sciences together on one site allowing investment in Microbiology Automation and the service transfer of Cellular Pathology from UH Bristol to NBT are just a few of the future projects that rely on the WinPath deployment gateway. Severn Pathology will also look at the possibility for further service consolidation which the flexible nature of the CliniSys solution will support.

The CliniSys solution is inherently flexible which can rapidly and evolve alongside the service’s developing needs in support of securing new business or formation of additional partnerships.

David Gibbs concludes: “Our partnership with CliniSys and the deployment of the their system, underpinned by Capita’s managed service, will enable Severn Pathology to continue to develop and expand to accommodate future advancement of its services”.

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