HBL ICT Shared Services

Annual Report - 2017/18

Welcome…... from Phil Turnock

During the NHS's 70th Anniversary I have great pleasure in completing this, our third Annual Report, at the end of a year which has seen the successful launch of the HBL Private Cloud, delivered from our two IL3+ compliant Data Centres. This exciting investment not only provides the foundation to deliver the digital strategies for our Partnership, but will also support the approach of the two Sustainability and Transformation Partnerships (STP's) in which we play an intrinsic part.

Gone are the days when our ailing infrastructure was seen by our partners as a significant risk that compromised the delivery of clinical services in our counties. Instead we are now able to leverage this investment to optimise and realise our Partner's business and clinical ambitions. This unique private cloud solution is now being recognised in the wider health service economy and we are being used as a reference point to showcase to other NHS organisations a different approach to delivering Infrastructure as a Service (IaaS).

In addition, this year we have successfully completed the migration from our on premise email service to NHSMail. This proved to be a complex project that required full partnership engagement, intricate communication plans and detailed project management to ensure its success. Having delivered this, we are now an inclusive part of a national system, which will enable greater collaboration for the STP's.

I am very proud of our achievements as an ICT shared service and of the commitment and resolve our that our staff have demonstrated, in not only delivering the above but also a number of other key deliverables which you will read about in this report, including adapting to the new GDPR legislation.

I strongly believe that the strategies that we have set out are now paying dividends to the Partnership, and are now starting to be realised. That said, we can never sit back on our laurels, we need to continue to develop new strategies to ensure that we can invest in innovations to improve the integrated care systems, plus ensure we protect our borders from the ever increasing cyber-security threats which are a key factor of the IT industry.

Finally, I would like to personally thank our staff, partners and stakeholders who have contributed to making this a very successful year. We understand that we have more to do in terms of improving service delivery at a transactional level, but we have the leader-ship, skills and motivation to make this happen.

Phil Turnock

ICT Shared Services Director

Welwyn Garden City fountain dyed blue for the NHS 70th Birthday celebrations

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Redesigning our Structure

Following the delivery of a new agile infrastructure with the engagement our Partners, we recognised that we are now embarking on a journey that enables us to become more innovative in developing and delivering solutions, so that partner digital ambitions can be realised.

To facilitate this we redesigned our organisational structure so that we have the right resources to focus on improving our customer/user interface, achieve more first time fixes, provide greater focus on project delivery and introduce Solution Architects to design innovative solutions for our partners.

One of the key learning points from this past year, is the need to invest more time in business engagement, and to this end we are now putting greater focus on the process of requirement gathering through Business Change & Analysis.

This new organisational structure became operational on 1st June 2018, and already is starting to deliver tangible benefits to our stakeholders, including improving staff morale. This framework gives greater focus on deliverables, with better alignment to our partners.

Building upon the new structure underpinned by our HBL values and strategic principles, we are engaging on a cultural change programme, which includes a small focus group made up from representation from all the HBL functional areas. The desired outcome is to change the way in which we undertake our daily work routine and approach to problem solving by thinking about the needs of the clinicians and their service delivery. Ultimately, we are aiming to empower our staff by making them feel valued and more accountable and thereby enriching their working life within the HBL ICT Partnership.

Our Vision….

To become the ICT provider of choice, by delivering without boundaries; cost effective, cohesive and innovative solutions that improves patient outcomes.

Our Strategic Principles: "IT Just Works"

- Patient outcomes at the centre of strategic decisions.
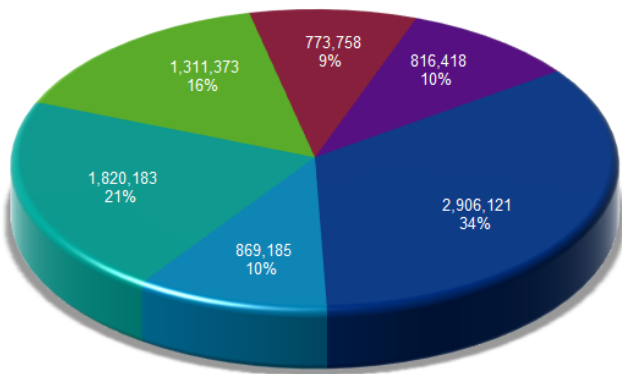
- Promote a consumer like experience.

- Promote equality throughout the partnership.

- Create an environment that encourages innovation.

- Be socially aware and mindful of the impact of technology can have on our environment.

- Provide an environment that ensures information is easily accessible to meet the demands of healthcare provision.

Finances at a Glance… 2017/18

During 2017/18, HBL ICT reported a financial breakeven point and thereby hitting the control total as defined by the Partnership Board. This included the 2% national efficiency target, and a further agreed 4% stretched efficiency saving.

Additional operating costs funded by the Partnership include the new second Data Centre costs at Farnborough and enhanced solutions to protect the partnership against cyber-crime.

HBL ICT Expenditure 2017/18 by Service Area

Pie chart values:
- 773,758 — 9%
- 816,418 — 10%
- 2,906,121 — 34%
- 869,185 — 10%
- 1,820,183 — 21%
- 1,311,373 — 16%

Legend:
- Corporate
- Financial Services
- Service Design
- Technical Services
- Customer Services
- Projects

% Share of Overall Revenue Stream by Customer Type

Chart Area

Categories: Partner CCGs, Partner Trusts, Primary Care, Non Partner Income

Legend: SLA £, Projects £
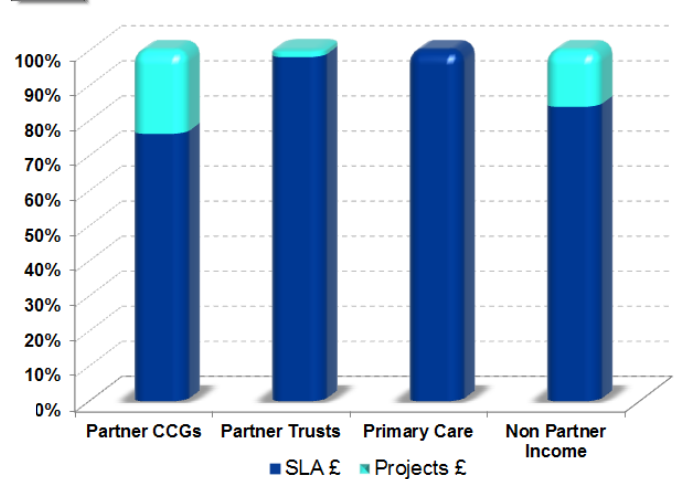
HBL ICT Revenue 2017/18 by Customer

Pie chart values:
- 468,619 — 5%
- 2,232,713 — 22%
- 4,961,498 — 48%
- 2,474,633 — 24%
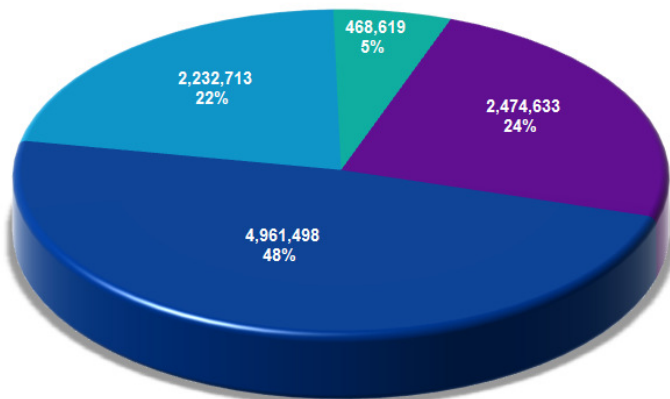
Legend:
- Partner CCGs
- Partner Trusts
- Primary Care
- Non Partner Income

Managing our Balanced Scorecard

As part of our organisational development, we will start using the Balanced Scorecard approach to translate our business objectives into actual delivery actions to our key stakeholders. Collectively the four perspectives will enable us to deliver our agreed business vision.

1) *Finance Perspective* - to succeed financially.

2) *Internal Process & Technology Perspective* - to deliver operationally and satisfy our customers.

3) *Learning & Growth Perspective* - how we will sustain and grow our resources.

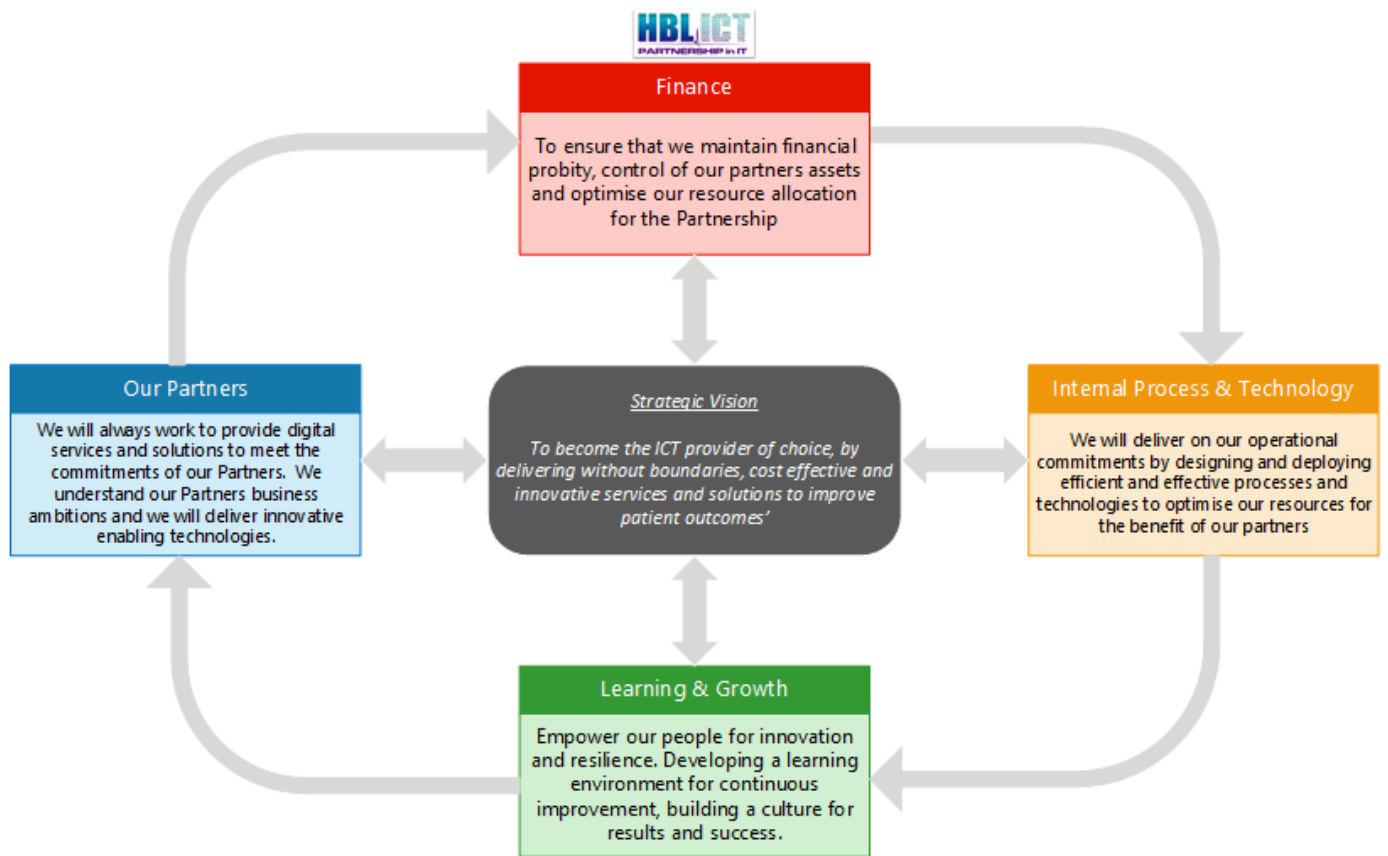4) *Our Partners Perspective* - how are we perceived by our Partners and deliver results.

Each of these four perspectives will include the agreed dimensions for tangible elements for success:

- Objectives
- Measures
- Targets
- Results

Our aim is to reach an equilibrium between the four perspectives, giving equal importance to each. This will be achieved by embedding these perspectives into the organisation and the personal objectives of HBL ICT, which will then be included in the operational plans for each of the functional areas.

ICT Operations

Building upon the success of the HBL Private Cloud and to ensure that we can deliver industry leading solutions, HBL is now embarking on a programme of works that includes re-designing how we deliver WAN/LAN and Wi-Fi services utilising Cisco DNA architecture; upgrading our environment to utilise the benefits and features of Windows Server 2016 and SQL Server 2016, upgrading our core firewall capabilities to further enhance our cyber security defences and investment in an enterprise wide Security Event Information Management system.

ICT Operations is the initial interaction with HBL ICT for all Partners and customers who require advice and guidance on any issues or who wish to submit service requests. We support 9500 service users over 123 sites; the function is centred on the customer and offers the following services.

Service Desk

A desk dedicated to improving the customer experience by resolving as many calls as possible and improving first time fix rates. Our Remote Support Analysts always strive to fix the issue and have the additional support of Remote Support Technicians who offer their more advanced technical skill set, if required. The service desk handles a number of communication channels including voice, email, a self-service portal and in the near future, a web chat service.

Field Operations

Responsible for the configuration and deployment of new equipment to our customers and the provision of engineering services to resolve site issues, this service is committed to ensuring the right equipment is in place and operational for all of our customers.

Site relocations and transfers are dealt with by our Technical Deployment Team who provide expert advice and due diligence when planning a move of staff and operational services.
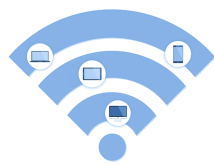
Access Management

This service is responsible for the management of access to the HBL ICT Private Cloud, including all user account administration, data access permission and local administration of NHS Mail.

Registration Authority smartcards which provide access to national clinical systems, including SystmOne, is also part of the service offered to primary and secondary care providers.

Relationship Management

Relationships are key to successful delivery of services and dedicated Business Relationship Managers ensure an understanding of the business needs for all of our customers from an operational and strategic perspective. Understanding our customers allows ICT to transform service delivery.

A dedicated Communications Manager allows HBL ICT to have a structured and focused communications plan to ensure all customers are informed of any issues and are aware of upcoming developments to our service provision.

HBL Private Cloud

Realising the vision of the HBL Private Cloud is a major milestone for HBL ICT as it allows us to deliver collaborative, agile, resilient, efficient and secure services across our Partners to support the delivery of patient care.

The underlying architecture of the HBL Private Cloud is two N+1 datacentres located in Welwyn Garden City in Hertfordshire and Farnborough, Hampshire. Each data centre hosts an array of services across the partnership that are delivered across a private Wide Area Network to 122 locations across Hertfordshire, Bedfordshire, Luton, Buckinghamshire, Essex and Norfolk. The shared infrastructure allows different Health and Social Care providers to easily collaborate and share technology solutions to improve patient outcomes.

Each data centre has been designed to ensure that services remain operational 24/7, 365 days a year, utilising best of breed technology solutions such as Cisco UCS, Zerto and Rubrik. This, coupled with a team of highly experienced architects and engineers affords the partnership the ability to provision new service offerings within days not weeks.

With an average Power Usage Effectiveness (PUE) of 1.2 across both data centres, the environmental effects of services are some of the most efficient across the industry.

Security is at the heart of everything we do and our approach, coupled with our Security Operations Centre means that HBL ICT has not been affected by any significant cyber event since the adoption of the private cloud.

Our layered approach to cyber security resulted in HBL ICT being awarded the Cyber Essentials accreditation in 2017, and our ambition for 18/19 is to achieve Cyber Essentials Plus.

Building upon the success of the HBL Private Cloud and to ensure that we can deliver industry leading solutions, HBL is now embarking on a programme of works that includes re-designing how we deliver WAN/ LAN and Wi-Fi services utilising Cisco DNA architecture; upgrading our environment to utilise the benefits and features of Windows Server 2016 and SQL Server 2016, upgrading our core firewall capabilities to further enhance our cyber security defences and investment in an enterprise wide Security Event Information Management system.

Governance, Risk & Compliance

Cyber Security

We believe that digital technology should be safe and beneficial, and that we have an obligation to ensure that the CCG, GP practices, our partners and the public, can trust us to keep the IT systems safe and available and properly protected from cyber threats.

The Wannacry incident in May 2017 did not infect any of the devices within the HBL ICT environment. Nevertheless HBL ICT was affected by the attack due to teams being on high alert with elevated monitoring and technical resources being dispatched to other NHS organisations to help them manage the outbreak. At a national scale Wannacry provided clear evidence that the NHS is not immune from attack, and that cyber risk is a business threat.

HBL ICT achieved the Cyber Essentials Certification in December 2018 and continues to work to the National Cyber Security Centre "10 Steps to Cyber Security" framework. This goes beyond the Cyber Essentials Scheme, and is designed for organisations that are likely to be targeted by more technically capable attackers. In addition to maintaining our cyber technical resilience, we maintain links and communications, including national CiSP and the NHS Batsignal channels to monitor ongoing threat levels.

User awareness of the Cyber Threat is a critical element protecting our services and data. HBL ICT led Cyber presentations to staff across the Partnership and Locality events. Emails are sent regularly from HBL ICT to inform users of specific events e.g. Hoax calls. Information on cyber hygiene has been issued to partners for inclusion in their in-house magazines.

Software Licensing

The partnership use a wide range of software applications (550+) in the delivery of their services. We continue to actively monitor that software installed and used within the network is supported and also has been licensed appropriately.

During 2017-18, significant work was carried out in preparation for the renewal of key end user software licenses across the partnership. These were finalised in May 2018 following discussions with the Department of Health (DoH and NHS Digital.

We have also taken the opportunity to upgrade key operating system and use the Advanced Threat Prevention system at no additional cost to the partners for the 5 years duration of the contract.

Data Processing Officer (DPO) as a Service

The General Data Protection Regulation (GDPR) and Data Protection Act (DPA, 2018) outline the requirement for public authorities to appoint a Data Protection Officer (DPO) to aid them in meeting their obligations under the new data protection legislation.

To assist our partner organisations, we have developed a solution to this requirement by developing the DPO as a Service (DPOaaS) and making it available to GP Practices via the CCGs within the partnership. The service includes the DPO and other team members supporting, advising, monitoring and reporting compliance in accordance with the data protection responsibilities detailed in the requirements set out by the GDPR and DPA (2018).

Managing your Primary Care IT

The Informatics Department is responsible for the delivery of GPIT services, as specified in the GPIT Operating Model. The Operating Model published by NHS England sets out a framework for achieving world class digital primary care systems. The aim is to provide flexible, responsive and integrated services for patients, giving them greater control over their health and care.

A range of business functions and specialist teams work collaboratively with our partner CCGs to provide core & mandated as well as enhanced primary care IT Services, comprising of:

GPIT Support Service Management

The management of GPIT Support service providers against agreed SLAs across our partner CCGs. The team also oversees IT security management, including configuration support, audit, investigation and routine monitoring.

Primary Care Implementation & Utilisation

A team of primary care systems experts supporting the promotion, implementation and utilisation of national digital systems, including SCR, EPS2, e-RS, Patient Online.

Free Wi-Fi now available

Look up health information, download health apps and browse the internet

Clinical Application Training

A team of specialist trainers supporting the safe and effective use of core clinical systems and their optimisation.

Business Change

A team of business change /change management experts supporting general practice and commissioners with the development and delivery of data quality improvement activities, including general reporting, template development, practice mergers, clinical system deployments.

Project Management

Skilled project and programme management resources to deliver the planned programme of work, both nationally and locally driven.

This includes rollout of staff and patient WiFi, procurement and rollout of online consultation systems, rollout of Patient Information Screen systems.

The number of patients signed up for **Patient Online Services** in **Hertfordshire, Bedfordshire & Luton** has increased by **119,632.**

A Year in Numbers

During the year we have been busy managing services for our partners, the following gives an overview of the detail of the services provided over the course of the year:

Our Customer Services team handled over **35,000** telephone contacts & **81,000** emails

We managed in excess of **47,041** NHS Smartcard Accounts

Our Partners have sent & received over **8.2 million** emails

Our Procurement team administered over **13,371** items procured through **1101** ICT orders raised and leading to **1,463** lines of items placed.

We store over **70 Terabytes** of data for our Partners

We support over **11,000** network connected devices

We successfully blocked over **2500** viruses / malware infections from attacking our network *

We successfully managed **78** projects

We responded to **47** Freedom of Information requests

We countered **25** breach/near misses that were reported

We had **221** changes raised via the Change Advisory Bureau, of which **142** were completed

We completed **263** Business Change requests for customers

We delivered **1,552** training sessions to our customers

This number has dropped significantly since last year due to tighter controls around websites and email, but also due to improved communications across the partnership with regards to Cyber Awareness.

Our Unique Selling Point

We in HBL ICT Shared Services are working hard to define an ICT Service Portfolio that meets the demands of our Partners across Hertfordshire, Bedfordshire and Luton, working with strategic suppliers within the industry, which collectively makes our unique recipe for ICT Services.

We have the understanding and knowledge of IT systems in context of the Health & Social Care industry, operating within an NHS organisation. We believe that we understand your business and will bring information to the hands of those that need it at the point at which they need it. This reflects the change that all of our health customers are facing, the change in technology from fixed devices to mobile, the ability to take in large amounts of data, make sense of it and utilise it to good effect on safe excellent healthcare for patients. Additionally, the ability to use that data to pro-actively manage the services provided is the key to the future. We anticipate that it will only be successful by standing alongside our customers facing these challenges; together will we be successful in our chosen market.

We understand cost pressures and have demonstrated our own ability to deal with them and the drive to improve productivity whilst maintaining and indeed, improving service offers to our partners. We believe that puts us in the position of having the ability to support our clients effectively.