

| solution guide

Technology
you can **trust**
to improve
patient care

Insight 



Transformational IT
for the NHS

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Transformational IT for the NHS



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This guide will introduce you to some of the trends, drivers, developments and the opportunities that are available by partnering with Insight to transform your Healthcare IT.

There are three distinct areas that will be covered:

- Key IT issues affecting the NHS today
- How to make real cost savings
- Increasing operational efficiency



eObservations and Digitally Enabled Observation Solutions (DEOS) for mobile healthcare.



The use of Big Data to identify potential threats and increase efficiencies.



Using our License Consulting Services to streamline your software requirements.



Overcoming your business challenges

As a healthcare professional working in the National Health Service the challenges you face are many. An ageing population coupled with rising costs and advances in medicine and technology, are putting a greater burden on the NHS than ever before.

With budgets being squeezed and patient numbers ever increasing you need solutions to provide a service that is more streamlined, agile and dynamic. At Insight we've been providing IT solutions for our healthcare clients for over 20 years that not only improve patient experience and help to save lives, but also help to save money.

Your complete healthcare solution

We are vendor agnostic, partnering with some of the biggest hardware and software providers in the world including Apple and Microsoft. We can provide you with a range of clinical applications, the hardware that they run on, the servers and storage for your data centre, and the Enterprise Mobility Management system that ties it all together.

We deliver solutions at a scale to suit our customers, from simple hardware supply, various levels of implementation support through to full total lifecycle management including helpdesk facilities and on-going support.

Key Solutions Partners





eObservations and Digitally Enabled Observation Solutions (DEOS) for mobile healthcare.



In a recent study¹ involving 1,481 consecutive patients a total of 13,668 observation sets were created. The outcome was a reduction in the lengths of stay in hospitals from an average of 9.7 to 6.9 days. This had multiple benefits including the freeing up of beds, making real cost savings and patients being able to go home more quickly.

A completely mobile healthcare solution using remote monitoring and eObservation technology.

In this section we will run through some of the clinical application options that we offer to implement your mobile healthcare solution.

Insight has several clinical applications that can drastically reduce the amount of paperwork your staff create whilst doing away with the need for pagers, manual upload of observations and time consuming handovers.

These applications have been developed by healthcare professionals and are being used by NHS Trusts throughout the UK, thus improving patient safety by making a number of critical capabilities available to nurses and doctors at the patient bedside.

The applications run on iPad and iPod touch giving you the power of Apple to revise patient records, record observations, receive updates and transfer information. Where required, we also have solutions for other platforms including Windows and Android.

Seamless observations on the move

Patientrack is an always-on communication system that is proven to help improve safety and reduce harm. The system's implementation will completely remove the need for paper-based observation in your hospital by allowing nurses to capture real-time observations with any internet enabled device with a web browser. This eliminates human error as readings are taken electronically and uploaded directly to your database.



Another study² carried out by NHS NTAC has measured the effect of early recognition of deteriorating patients, demonstrating:

16% LOWER	9% FEWER	15% REDUCTION	10% REDUCTION	6% FEWER
hospital standard mortality rate	deaths	in length of stay	in critical care beds	admissions to ICU

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eObservations and Digitally Enabled Observation Solutions (DEOS) for mobile healthcare.

Unlocking the power of mobile healthcare

Nervecentre is another clinical application that runs on Apple devices, but will soon be expanding onto additional platforms, to record a patient’s vital signs – their pulse, blood pressure and temperature. It also transfers information about a patient and updates their records.

Its key features are:

Automated, cascading alerts to doctors for rapid response	Mobile capture of patient information for nurse and doctor handover	Automatic allocation of requests from nurses to doctors during out-of-hours	Real time visibility of the sickest patients by EWS score	Real time visibility of patient information, assessments and current EWS
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Early Warning Scores (EWS) are critical in predicting when a patient’s health may start deteriorating enabling hospital staff to react quickly to their condition. Through early identification of worsening patients through EWS, Patientrack helps hospitals meet national and local targets for improvements in patient safety, improving outcomes and supporting frontline staff.

Digital systems provide a range of benefits when predicting early warning scores, including increased accuracy, better attendance to patients with lower EWS scores through automated follow up care scheduling and a reduction in unexpected cardiac arrests and admissions to ICU.

Nervecentre incorporates a number of additions to the traditional eObservations platforms, including specific support for A&E departments and a Hospital at Night module as examples.

Nervecentre’s mobile solution also integrates with Cisco Jabber, another market leading application that works in a number of mediums including instant messaging (IM), voice, video, voice messaging, desktop sharing, and conferencing. In essence it will give your teams the freedom to communicate freely from wherever they are in the hospital enabling them to exchange vital real-time information about patients.



New Remote Monitoring Technology

A number of providers are now developing a pioneering technology that uses the science of photoplethysmography (PPG) to read a patient’s vital signs with a camera in a wide range of real world situations. For example it is completely effective under normal ambient light conditions that are found in most hospitals. It then uses sophisticated algorithms to alert hospital staff to sudden and irregular changes that could suggest a problem with the patient.

It takes the following measurements:

- Breathing rate by measuring respiration using motion tracking technology to detect movements in the face and upper thorax
- Blood oxygenation is tracked by changes in blood oxygenation by measuring the differences in the absorption of different wavelengths of light.
- Heart rate by using camera technology to detect changes in the reflectance of light as blood pulses through the skin.

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eObservations and Digitally Enabled Observation Solutions (DEOS) for mobile healthcare.

The suite of clinical applications that Insight provides are tailored specifically for you. We'll conduct a thorough analysis of your requirements and create a solution that suits your Hospital's needs.

Imagine there was support for nurses that enable them to enter observations with Early Warning Scores calculations that support them at the bedside and assist with their clinical judgement, providing visibility at every step, with one touch escalation. This would enable nurses and doctors to view observations with abnormal readings and react quickly and decisively, tailoring care of patients' needs.

Not only does this help to deploy limited clinical resources more intelligently, but importantly from a risk management perspective these solutions also provide a detailed audit trail of patient interactions and the trajectory of the patient's progress throughout their stay.

Insight's mobile healthcare platform does that right now.

Tailoring the clinical app for you

These solutions are being trialed in the UK at the current time. The outcomes have been universally positive. By measuring vital signs remotely nurses don't have to manually monitor patients giving them more time to perform other tasks.

This type of solution is also ideal for monitoring vital signs of patients where it is not suitable to connect physical devices to a patient, with ideal applications for newborn babies, burn victims and other significantly immune-compromised patients, as well as in secure care environments.

Real-time hospital bed management for you

By speeding up the resolution of patient problems a more efficient system for the allocation of hospital beds can be implemented. Bed management has long been a problem for hospitals and by recording, managing and communicating relevant information it can be greatly streamlined to maximise efficiency.

Optimising in-patient stays and discharges is the key to ensuring the financial success of a modern Hospital Trust. Using eObservation systems to support clinical decisions around when a patient can be discharged helps to improve efficiency, but this is only part of the picture. Tracking and communicating bed availability across a hospital is the next stage in ensuring that the estate is generating maximum return on investment and operating at peak financial efficiency.

To help you overcome these challenges, Insight works with specialist healthcare suppliers to allow hospitals to plan, record, communicate and manage patient flow and real time bed management information. Each ward and department records the same basic information with options to go into further detail for specific specialisations.

In tests, by far the most popular input has been a large format LCD touch screen. This allows clinicians and managers to see information at a glance and to make changes with the touch of the screen, across the Hospital estate.

The system provides a framework for processes that everyone can follow, with automated checklists of tasks for clinicians and for supporting staff such as cleaners and porters.

Insight has significant experience in providing a range of additional software products to support this requirement, as well as providing the hardware and support services to enable use of this facility from within suitable existing PAS systems.



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The use of Big Data to identify potential threats and increase efficiencies.



In this section we will look at how the use of Big Data can be used to identify potential threats and increase efficiencies.

Big Data for a more rounded view on hospital conditions

By automatically monitoring and recording patient information, data is continually collected that can provide a huge amount of insight into the operational conditions of a hospital. By manipulating and understanding this Big Data hospital managers can predict potential problems before they actually happen.

For example outbreaks of conditions such as methicillin-resistant staphylococcus aureus (MRSA), that is resistant to a number of widely used antibiotics, can be predicted. This virus can cause entire wards to be isolated creating numerous challenges for hospital staff and patients.

Early recognition of this type of hospital borne infection through analysis of Big Data can highlight areas of infection and enable hospitals to isolate patients and schedule infection control measures. For example a cluster of changes in vital signs for a particular ward gives an early warning of a potential problem.

Our eObservation solutions offer this functionality as part of their ecosystem, but we can also provide a range of additional Business Intelligence and Data Visualisation solutions that can aggregate data from a range of other systems across the Trust. These enable Trusts to look at clinical and financial information, analysing trends and correlations to assist with decisions around development of the Trust's strategy and direction.

It's not possible to manage demand for Healthcare services across the NHS. However understanding the correlation between procedures, income and costs in a simple visualisation can help Trusts to schedule an appropriate balance of services and procedures.

This ensures that their operations are financially sustainable in the medium to long term.

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The use of Big Data to identify potential threats and increase efficiencies.

Insight works with a number of leading providers of Clinical Portal solutions, to allow aggregation of information in real time from disparate systems both within a Hospital environment, or across the primary and secondary care estates, to deliver a "single patient view".

This can be provided securely across a range of platforms to ensure that the information is available to any healthcare professional, regardless of the care setting.

By combining details of patient interactions with both GPs, community healthcare and Acute Hospital Trusts, Healthcare practitioners can view patient interactions with all NHS entities, helping to ensure a full view of the patient's history, avoiding costly repetitive tests and ensuring that all relevant data is available for every patient event.

The result:

A massive reduction in wasted time

in duplicate care instances and repeat procedures, enabling better resource and financial efficiency, but most importantly, better patient outcomes.



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Insight's License Consulting Services



Using our License Consulting Services to streamline your software requirements.

Working with Insight to reduce your software costs

Licensing is complex and few organisations employ expertise in Software Licensing and certainly can not maintain this knowledge using real industry experience. Even for IT professionals within the NHS, keeping on top of all changing regulations from month to month can be a challenge. For others who only review licensing in detail every year or in some cases every three to five years they can struggle to make the right decision with 100% confidence. In fact, research found that 87% of businesses do not have the correct software licenses to cover the number of users. This alone can lead towards unauthorised use of licensing or over-spending based upon poorly articulated licensing rights. Lack of awareness of options, referenced examples and the finer details of licensing puts customers in a weaker position during negotiations but equally in validating the actual packaged options adopted are in fact the most appropriate licenses.

As one of the leading licensing suppliers to the public sector we have become accustomed to finding that 4 out of 5 desktop software applications are never used. This immediately highlights the fact that real cost savings can be made by rationalising your software needs. By applying our expertise with the world's biggest software providers we are able to dramatically reduce the cost of software licensing.

This is accomplished through a combination of only paying for what's needed in terms of quantity and packaged options but also better aligning the licensing agreement to actual consumption rates.

Changes within public sector licensing

With recent changes within public sector licensing we need to look towards the corporate world for tips and methodologies to get the most from our investments – these changes appear to be minor in terms of aligning to corporate price plans but this allows for concessions and amendment to create a more agile agreement structure which creates a commercially improved offering.

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Insight's License Consulting Services



Making significant savings in software licensing for you

Two of Insight's License Consulting Service clients in the NHS have immediately saved in excess of £200,000 per annum by simply changing the licensing models.

The first was a NHS trust in the West Midlands who benefitted by over £70,000 per annum from a more efficient way of product licensing. Through technically re-architecting the models and leveraging licensing rules. Whereas, a Hospital Trust in the East Anglia region realises annual reductions exceeding £100,000 by adjusting the products mix ordered against 'real' consumption and adopting a better aligned licensing agreement.

How can we help?

Since 2008, Insight has been helping customers make the right decisions on future commitments to licensing contracts with amazing savings averaging over 30%.

With a 100% success rate of reducing costs, we realise that just counting licences and comparing to a vendor asset report is simply not enough. Our proven methodology is built around the trusts deployment strategy and attaching this to the agreement options available.

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Need to know more about our Healthcare Solutions? See page 11...



Find out more about our Healthcare Solutions now

Trust us to give you the confidence to invest into the right IT solutions to drive innovations in your Healthcare provision.

Call one of our Trusted Advisors now on **0800 333 333**, or email us at **healthcare@insight.com**.

We're looking forward to talking to you!

Framework agreements that save you time and money

Insight's credibility is bolstered in healthcare by its inclusion on over 20 Framework Agreements across the UK Public Sector space. This means we are able to provide fast and easy access to the widest range of technology for our customers, while keeping risk and acquisition costs low.

These Frameworks range from the major Pan-government agreements such as Crown Commercial Services Technology Products, Corporate Software Solutions and G-Cloud frameworks, through to dedicated frameworks for education, local government and Healthcare customers.

Insight operates a dedicated Healthcare practice in the UK, with a team of Account Managers and field based experts who only deal with NHS customers. This enables us to understand the requirements of NHS customers like no other UK business, and for us to help share best practice amongst the community of Healthcare professionals with whom we work.

The scope of Frameworks that Insight is present on means that you are able to access our products and services through a trusted platform that has been designed to make procurement simpler and more efficient.

There is no solution that an NHS organisation may require from the IT marketplace that Insight cannot provide through this breadth of Framework Agreements. This enables Insight to be a true one-stop shop for our customers, removing issues around supply chain management and saving customers from having to manage ownership and responsibility on projects where multiple suppliers are needed to deliver a complete solution.

This is a key reason why Insight is the leading provider of IT solutions within the NHS, delivering over £70m of projects each year in the UK healthcare marketplace.

Powering up your ability to process and manage vital information

Insight is perfectly placed to help you develop more flexible and collaborative working allowing your nurses and doctors to make more informed decisions. We'll show you how to make use of the latest software running on the best hardware to improve your operational efficiency and patient service offering.

Investing into and managing your IT efficiently

We'll show you how to assess the risks of investing into a long term IT strategy whilst highlighting the advantages of having amazing IT driving your day-to-day systems.

We will demonstrate how to buy smartly, invest intelligently and manage effectively, and that the whole picture has to be considered, not just one aspect of it.

Deep-dive analysis of your current IT estate

By becoming your Trusted Advisor Insight will:

- Implement a mobile healthcare solution that is tailored for you
- Provide the complete package that encompasses hardware, software and on-going support
- Help you to understand the data that your new IT solution is monitoring and recording
- Overhaul your software assets to provide a bespoke package that is designed specifically for your requirements to make you real cost savings.

1. Ref: Jones S, Mullaly M, Ingleby S et al. Bedside electronic capture of clinical observations and automated clinical alerts to improve compliance with an Early Warning Score Protocol. Crit Care Resusc 2011;13(2):83-8

2. http://webarchive.nationalarchives.gov.uk/20130701143131/http://ntac.nhs.uk/web/files/a193_vitalpac_clinical_software_system_briefing_pack_final.pdf