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MAJOR PROJECTS
AUTHORITY
PROGRAMME
ASSESSMENT REVIEW
of the
National Programme for IT

Redacted 22nd September 2011

Commissioned by: Rt Hon Minister for the Cabinet Office, Francis Maude MP for
advice to Ministers

June 2011

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Review Commissioning Letter

19 April 2011

Una O'Brien
Permanent Secretary Department of Health
Richmond House
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Dear Una,

MPA Review of NPfIT

I am writing to inform you of the forthcoming Major Projects Authority (MPA) Programme Assessment Review (PAR) of NPfIT.

The purpose of the MPA is to catalyse a new collaboration between the Cabinet Office, HM Treasury and Departments, with the fundamental aim of significantly improving the delivery success rate of Major Projects across Central Government.

The MCO recently rejected the Outline Business Case for the ASCC Southern Communities projects over concerns on the overall confidence of delivery of the programme and the relevance of the programme given Coalition proposals for change within the NHS.

MCO has subsequently commissioned the Major Projects Authority to run a Programme Assessment Review, looking at the delivery confidence of the existing programme, as well as an exploration of alternative options, including any potential to re-scope the programme.

The review is due to take place in May, and the MPA assessment team will be in touch with the programme team in order to make arrangements for the review.

If helpful, I am available to discuss this with you.

Yours Sincerely

Ian Watmore

Chief Operating Officer, Efficiency & Reform Group, Cabinet Office

MPA PROGRAMME ASSESSMENT REVIEW OF THE NATIONAL PROGRAMME FOR IT

KEY FINDINGS

1. The origins of the National Programme for IT (“the programme”) came from an era when a hospital consultant would use a pen to write notes on the GP’s patient referral letter as part of the paper-based Patient Care Record. The underlying vision of a 21st Century NHS through the NHS National Programme for IT has been to use IT to create a fully integrated electronic patient record that could be securely accessed by connecting GP, Community Health, Mental Health and Acute care settings and by enabling patients to exercise choice.
2. The elements of the vision relating to connectivity and flexibility remain valid to support an environment of localised decision-making, GP commissioning, and informed patient choice and patient engagement. However, the view of a single all encompassing service which delivers full integration does not line up with the needs of clinicians on the ground and should be simplified to fit the current and future environment.
3. The National Programme for IT is not a single programme but a portfolio of major programmes with interdependencies, different timescales and varied contributions to benefits delivery. It has been criticised as ambitious and unwieldy; poorly served from over-selling and over-promising by suppliers; and not providing clear value for money (NAO Report May 2011). It has also not delivered in line with the original intent as targets on dates, functionality, usage and levels of benefit have been delayed and reduced. The suppliers for 3/5th of the country in terms of local service provision have exited their contractual terms or had their contract terminated leaving at least one significant dispute.
4. There is a view that no benefit has been delivered. In fact, there have been substantial achievements which are now firmly established. The Spine, N3 Network, NHSmail, Choose and Book, Secondary Uses Service and Picture Archiving and Communications Service are all business as usual and form essential infrastructure. They represent approximately one third of the £6.4bn total programme expenditure up to 31 March 2011. However the benefits they deliver as enablers are not quantified systematically by the NHS making it hard to present the achievements clearly.
5. Localised decision-making will require a different approach to the management of IT services and business process re-design. The National Programme for IT Board is beginning to consider reorganisation options for the new environment but cannot move far until there is more clarity following the “listening” pause. A line should be drawn under the original case and new arrangements for managing the portfolio are established within the NHS structural reforms. This will require a clear acknowledgement that there can be no confidence that the programme has delivered or can be delivered as originally conceived.
6. Local Service Provider (LSP) contracts were let for IT services to be delivered to all Trusts in the regions. There are 2 remaining LSPs, BT and CSC, following contractor drop-outs over the years since contract award. LSP contracts are delivering operational services in many care settings across the regions. CSC is providing (non-Lorenzo) systems to Community and Child Health Trusts, Ambulance Trusts and GP sites in the North, Midlands and East regions. BT is providing systems to Acute Trusts, Community and

Child and Mental Health Trusts in London. BT and CSC are providing some services in the South following Fujitsu withdrawal.

7. These contracts run until 2015 but have not proved to be wholly fit for purpose in respect of bespoke system development (Lorenzo) and providing choice to Trusts.
8. LSP contracts have potentially constricted the health care systems market in England and there has been little development of new generation systems due to the lack of free demand. In the future the market should be encouraged to develop products which can meet the needs of connectivity and interoperability for the NHS. The Spine and network form the glue for connecting all care settings and information exchange standards can be applied. Compliance with the rules for connection and interoperability will need to be exercised across the NHS in a form of regulation. The future shape of reforms in the NHS should be reflected in a new form of provision from a regulated competitive market for IT systems.

<Text Redacted >

9. The ASCC framework procurement model which has been applied to provide the South with products and services allows the Trusts to exercise choice. The requirements were developed by the Trusts rather than handed down by the Connecting for Health (CfH). The products and services are required to comply with CfH rules for connectivity and interoperability. In these respects the ASCC procurement path fits with localised decision-making
10. LSP contracts are owned by CfH but delivery into a care setting is the responsibility of a Trust working with the LSP.

<Text Redacted >

In the future authority and responsibility must be clearly aligned and firmly applied to contract management in the new NHS environment of local decision-making.

11. Lorenzo development under the CSC LSP contract is the major problem now affecting the North Midlands & East of England (NME) region. Lorenzo is a new generation software product being developed by i-Soft, a sub-contractor to CSC. It is late, has reduced functionality from the original wide specification and has missed a number of target dates for delivery. *< Text Redacted >*

OPTIONS FOR CONSIDERATION

1. Whether to terminate the overall National Programme for IT

Options:

- Continue with current organisational and management arrangements.
- Dismember the programme and reconstitute it under new management and organisation arrangements along the lines of (a) Business as usual (b) ongoing rollout work leading to delivery under the LSP contracts (c) that which should stop.

Recommended Action

To dismember the programme and reconstitute it under new management and organisation arrangements. The National Programme for IT as a concept relating to the original investment decision should be terminated. Unless the work is refocused it is hard to see how the perception can ever be shifted from the faults of the past and allowed to progress effectively to support the delivery of effective healthcare. Terminating existing organisational and management arrangements will allow for a new approach to the management of IT-enabled change aligned to the direction of travel for the Department of Health and the NHS. Where ownership of national contracts are in an environment of localised decision making

2. Whether to proceed with CSC for the development and deployment of Lorenzo.

As a result of the delays and in the light of a CSC proposal for de-scoping, the NHS has investigated a number of options that could be taken.

<Text Redacted >

CSC are contracted to provided services other than Lorenzo, including PACS, Community and GP systems, as well as interim Patient Administration Systems rolled out to over 100 Trusts by the supplier.

<Text Redacted >

However if the decision is taken to allow the Lorenzo development and deployments to continue there needs to be a considerable strengthening of the renegotiated position first to give CSC the opportunity to step up to its failings and for a clear statement of obligations on all parties and a viable and deliverable plan to be created and adhered to. There is no certainty that CSC would deliver fully in the remaining time of the contract, but the terms of the renegotiation could enable them to have a completed Lorenzo product which can compete in the market which replaces LSPs.

Recommended Action

<Text Redacted >

3. Use of the ASCC Framework

The Minister for the Cabinet Office recently refused to approve the Outline Business Case for the ASCC Southern Communities project over concerns on the overall confidence of

delivery of the programme and the relevance of the programme given Coalition proposals for change within the NHS.

The options are:

- Allow ASCC to proceed as the procurement vehicle for the South, until it expires in 2012. Those care settings which are not delivered in the timescale will have to commence separate procurements.
- Stop ASCC from proceeding. This will require Trusts to proceed with individual procurements.

The solutions available through the framework are tried and tested. The ASCC approach is aligned to allowing greater local choice of solution. Stopping the use of the framework will slow progress in a region which has already been disappointed by Fujitsu contractual position. The only alternative is multiple full procurements based on the same supply base.

Recommended Action

Whilst the framework remains extant it should continue to be used, with any call off subject to Cabinet Office and HM Treasury assurance, scrutiny and approvals.

In parallel work must be carried out to develop a viable alternative for its replacement, along the principles outlined in above.

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DESCRIPTION AND ANALYSIS

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1. PROGRAMME DATA

Summary of programme:

The National Programme for IT was established in 2002 to deliver the vision outlined in “Delivering 21st Century IT Support for the NHS”.

The vision behind THE National Programme for IT is to create an electronic patient record and to use the ability of technology to connect all parts of the health economy to improve patient care.

Programme Aims:

The aims of the programme were to be achieved through a number of workstreams:

- Building the IT infrastructure;
- Defining data and system standards;
- Maintaining and creating critical national services;
- Managing procurement; and
- Developing capacity.

Major Benefits:

The programme originally described the benefits as:

- Support the patient and the delivery of services designed around the patient, quickly, conveniently and seamlessly.
- Support staff through effective electronic communications, better learning and knowledge management, cut the time to find essential information (notes, test results) and make specialised expertise more accessible.
- Improve management and delivery of services by providing good quality data to support National Service Frameworks, clinical audit, governance and management information

These broad-based definitions of benefits have developed into common themes which occur across the programmes in the portfolio:

- Increased patient safety (e.g. providing clinicians with access to key clinical information from the patient history at the point of treatment)
- Increased data security (e.g. implementation of secure data transfer services)
- Supporting patient choice (e.g. Choose and Book)
- Efficiency improvements (e.g. reduction in patient did not attend occurrences at clinics)

Overall Costs:

Revised forecast of £11.4bn (reduction of £1.3bn from forecast of £12.7bn)

Actual spend at end March 2011 £6.46bn.

(At 2005 prices as used in the NAO Report - The National Programme for IT in the NHS: an update on the delivery of detailed care records systems May 2011)

Details of Delivery Partner Organisations:

<Text Redacted >

2. PROGRAMME STATUS

The National Programme for IT is not a single programme but a portfolio of major programmes with interdependencies, different timescales and varied contributions to benefits delivery. It has suffered from description as an IT implementation when in reality it should have been seen as a NHS business change portfolio chiefly enabled by IT.

The vision of improved patient care through technology-enablement remains valid but can be achieved differently.

The National Programme for IT has contributed some significant achievements, although the benefits are not well-documented and valued.

A line can be drawn on what has been achieved by the programme. The future portfolio of work can then start with a fresh approach, in order to obtain what continues to be the vision, separated from the history.

The underlying vision of a 21st Century NHS through the National Programme for IT has been to use IT to create a fully integrated electronic patient record that could be securely accessed by connecting GP, Community Health, Mental Health and Acute care settings and by enabling patients to exercise choice.

The elements of the vision relating to connectivity and flexibility remain valid to support an environment of localised decision-making, GP commissioning, and informed patient choice and patient engagement.

The approach taken by the programme originally was to provide a single solution in a Trust care setting that was all encompassing, a "one size fits all" standard configuration. This nature of full integration of all tasks required in a Trust does not line up with the needs of clinicians on the ground, where they want only those parts of the system that support their particular tasks. As a consequence this approach was changed several years ago to a "connect all" solution in which different systems would be interconnected and interoperate across the NHS national infrastructure which has been established. System solutions within the Local Service Provider (LSP) contracts have much of the all-encompassing capability but can be configured to suit local Trust needs. A Trust is required to engage resources in defining local configuration needs.

The origins of the programme come from an era when a hospital consultant would use a pen to write notes on the GP's patient referral letter as part of the paper-based Patient Care Record. The NHS environment, being a large and loose confederation of organisations and services, represents a formidable environment in which to bring about changes to business processes. There continues to be under-estimation, by stakeholders and observers, of the magnitude and complexity of the change involved and the resources and commitment required to achieve the longer term aims and benefits.

3. PROGRAMME BUSINESS CASE AND DELIVERY APPROACH

3.1 The Business Case for the National Programme for IT

It is not possible to identify a documented business case for the whole of the Programme. Instead the component programmes in the portfolio have separate business cases to support investment decisions.

Whenever the Programme comes under scrutiny there is always significant focus on the degree to which the originally forecast benefits have not been delivered. The NAO has made reference both to this failure and also to the fact that an up to date reconciliation to the forecasts was not available in time to be considered as part of their review. Benefits are a key part of both the original investment decision and also support assessment on the degree to which an investment is successfully and effectively delivered.

Connecting for Health recently introduced a methodology for identifying and tracking benefits for Trusts to use, however despite this there is no rigorous and systematic compilation of benefits carried out by Trusts and SHAs.

The programme has been modified during its lifetime to find better ways to make progress but continues to be dogged by flaws in the original foundations. These modifications, especially in the past few years, include re-prioritising, re-scoping, de-scoping and changing timelines, reflecting clinical priorities and local ownership responsibilities, and improving programme governance. The absence of an overall business case makes it impossible to monitor the effect of these modifications across the whole portfolio of work.

Despite the absence of an overall business case and consolidated view of benefits it appears to us:

- The delays in implementation mean that there is not time to deliver the originally conceived benefits in line with intent.

<Text Redacted >

- Absence of a rigorously systematic approach to the reporting of benefits means that creation of revised plans cannot be reconciled to the original figures and does not inform baseline planning for future delivery.

It is apparent that the National Programme for IT as a concept relating to the original investment decision should be terminated. Unless the work going forward is refocused it is hard to see how the perception can ever be shifted from the faults of the past and allowed to progress effectively to support the delivery of effective healthcare.

3.2 Approaches to Delivery

The services delivered by the National Programme for IT can be grouped into three main areas, with each element described being delivered through a dedicated programme:

- National Infrastructure: the Spine, NHSmail and N3
- National Applications: Choose & Book (CAB), Electronic Prescription Service (EPS), GP2GP Record Transfers, Secondary Users Service (SUS), and the Summary Care Record (SCR)
- Local Services delivering systems to Acute, Community, and GP Practices through the programmes for IT, and the Picture Archiving and Communications Systems (PACS)

3.2.1 National Infrastructure Services

Based on the evidence presented, the existing national services are in place, fully operational, stable, subject to an expected limited volume of change and have strong and

consistent support services in place; they are mature services. They are stable, perform consistently at agreed service levels and have no exceptional issues logs associated with delivery and live service. We received evidence of the business value of these services and the positive impact on Trusts' and GP's business. They form an essential underpinning to NHS operational activities.

3.2.2 National Application Services

The national application services which provide capabilities that operate across boundaries are in a similar state of maturity with regards to stability and service level compliance, change management, and the effectiveness of support services. The utilisation and exploitation is currently lower than represented by the original "vision" for the NHS IT programme.

3.2.3 Local Services

The Local Services are delivered regionally by a contracted Local Service Provider (LSP) into:

- London
- South
- North, Midlands and East (NME)

Local Service Provider (LSP) contracts were let for IT services to be delivered to all Trusts in the regions. There are 2 remaining LSPs, BT and CSC, following contractor drop-outs over the years since contract award. LSP contracts are delivering operational services in many care settings across the regions. CSC is providing (non-Lorenzo) systems to Community and Child Health Trusts, Ambulance Trusts and GP sites in the North, Midlands and East regions. BT is providing systems to Acute Trusts, Community and Child and Mental Health Trusts in London. BT and CSC are providing some services in the South following Fujitsu withdrawal.

The LSP contracts run until 2015 but have not proved to be wholly fit for purpose in respect of bespoke system development and providing choice to Trusts.

The principles that now underpin delivery in each region are based on a delivery strategy agreed in December 2009 that would allow the use of technically different systems (e.g.: Cerner Millennium, RIO and Lorenzo) through standard contracts in each region, with an LSP configuring the applications to deliver local variance in functionality based around a core Patient Administration System.

There have been some significant variations in the implementation experiences of the regions in what has been delivered and the effectiveness of both the service providers and the technology components deployed.

London has had past difficulty implementing in Acute Trusts but following a changed approach, based on lessons drawn from the Royal Free experience, further roll out is proceeding more smoothly. Experience in London is covered in more detail in section 5.1 of this report.

The South currently has a gap in the provision of the full range of local services due to the termination of the Fujitsu contract. BT has successfully taken over seven former Fujitsu sites in Acute Trusts. A procurement strategy for the South is proposed to cover the gap but awaits approval to proceed. This is covered in more detail in section 5.2 of this report.

NME has suffered major delays in the development of a new product, Lorenzo. To cope with the delay interim and legacy systems have been used to maintain operational capability across these regions.

The issues around Lorenzo development are covered in more detail in section 5.3 and Annex B of this report.

PACS has been successfully delivered in all the regions and is now considered as business as usual.

4. PROGRAMME GOVERNANCE

4.1 Current governance

Programme governance altered in late 2009 with a new national programme board chaired by the NHS Deputy Chief Executive. Membership includes clinical and business views represented by three SHA Chief Executives, the NHS Medical Director, the Director General for DH Policy, Strategy and Finance, the Director General for DH Informatics, and a Non-Executive member.

Each regional LSP implementation has a programme board chaired by one of the three SHA Chief Executives from the national programme board and comprising Chief Executives and CIOs from the regional level plus representatives from Connecting for Health.

Each separate Trust implementation has a programme board at Trust level.

The Connecting for Health organisation provides overall management of the programme, owns the budget and the contracts for the LSPs, and conducts procurement and management of national systems.

Implementation of local systems under the LSP contracts is the responsibility of each Trust.

The current arrangement provides a Trust with the solution chosen for its SHA region which is funded centrally through CfH. In effect the Trust is given a “free” solution or, as is sometimes described, receives an imposed solution.

This arrangement causes some of the criticisms about the LSP solution and is depicted as “not meeting the needs of the NHS”. However, where LSP services have been implemented and where the initial periods of changing working practices have been gone through, it appears that clinicians and managers change their views to recognise that, with local configuration, the LSP solutions are capable of meeting their needs. There are a number of instances now of advocacy and further exploitation of the LSP solutions by clinicians among the Acute Trusts and with some GPs.

The notions of a free good or an imposed solution are not conducive to strong exercise of responsibility and ownership by Trusts that are reluctant to accept and manage complex change.

The LSP contract arrangements require commitments, to be made by CfH on behalf of the NHS, for implementations by Trusts in order to achieve volume prices.

<Text Redacted >

Since 2008 Trusts have not had to use “the programme” to purchase IT systems, but in doing so they forgo the central funds provided by CfH.

4.2 Changes to governance

The national programme board has begun to consider how the future work should be organised to reflect the reshaping of NHS commissioning, GP consortia and Trust responsibilities. That consideration has not progressed with detail as it awaits the outcome of the government “listening” pause on reforms.

The proposed elements of how future work will be managed and organised are as follows:

- Dedicated informatics teams in each national and local body in health and social care.
- An Information Centre for Health and Social Care authorised to conduct national data collection.
- An encouraged range of informatics" shared services", where local organisations choose to share.
- A national shared informatics pool of skills on IT architecture, standards, programme management, change management, contract management, etc., available to support local dedicated informatics teams (working title for this pool is Health Informatics England, HIE).

These outline proposals imply the demise of the Connecting for Health organisation.

The proposals also suggest that national infrastructure and national applications are funded by, and become the responsibility of, the NHS Commissioning Board, although management could be delegated elsewhere in practice. LSP contracts would be steered by user-based groups for each product for each care setting, supported by the pool of skills in HIE.

Our review endorses the direction of travel which these proposals outline.

It represents an opportunity to dismember the programme and reconstitute it under new management and organisation arrangements along the lines of (a) Business as usual (b) ongoing rollout work leading to delivery under the LSP contracts (c) that which should stop.

Terminating existing organisational and management arrangements will allow for a new approach to the management of IT-enabled change aligned to the direction of travel for the Department of Health and the NHS.

4.3 Stakeholders

A criticism of the Programme has been that it has not reflected the needs of the NHS. The number of stakeholders involved is vast and contains many categories, including Clinician, Managerial, Technical, Informatics, and professional bodies.

The management of and engagement with stakeholders appears to have been less than systematic and rigorous during the life of the programme.

Fire-fighting by CfH and SHAs happens when stakeholders are in dispute <Text Redacted >

Clear stakeholder mapping and continuous engagement have to form part of any future arrangements to proceed with the portfolio of IT-enabled change.

There may be reluctance, based on rivalry among Trusts, to cooperate on what would otherwise make good stewardship of public monies through collaborative procurements and contracts. It will be necessary to provide suitable levers in the governance arrangements that incentivise cooperation.

Driving up the take-up of national services in the future will need to be achieved by a combination of, on the one hand, attractiveness of the service to the users at local level and, on the other hand, mechanisms to avoid perverse behaviours which undermine the benefits of national services.

5. DELIVERY PROGRESS

5.1 London region

The LSP for London is BT. The products which deliver the Patient Administration and Care Record services are:

RIO – for Community health services

RIO – for Mental health services

Cerner Millennium – Acute health services

RIO status

Evidence shows good capability by BT to deliver and manage the capability required through RIO

Cerner Millennium status

There have been historical difficulties with the delivery of Cerner Millennium by BT. The approach eventually adopted to overcome delivery difficulties encountered by the first few Acute trusts was to focus resources from BT on configuration and delivery into the Royal Free Trust, and to delay continuation elsewhere until this was proven to be successful.

This provided a number of learning points regarding utilisation of the Cerner Millennium product:

- approximately 80% of the product is “fixed in its delivery” and up to 20% is configurable locally
- the engagement of administrative and clinical staff was underestimated
- the approach to implementation and the resource needs was not defined in advance
- the implications for existing processes is significant – this is business process redesign and in some instances business process re-engineering based on a fixed system

The quality, maturity and stability of the Cerner Millennium product is sound and is proven in operation. Since the turn-around of the delivery by BT, London is confident about the future utilisation of Cerner Millennium.

5.2 South

To cover the full range of needs in the South CfH on behalf of the Trusts has developed a procurement strategy to provide support for the Trusts to fill this gap.

The strategy consists of four separate procurements using the ASCC (Additional Supplier Capability and Capacity) Framework for

- Community Health Care
- Ambulance Trusts
- Acute Trusts not covered by BT
- Systems Integration across care settings

In a break from the LSP model, all the Trusts involved with CfH /SHA's have developed and agreed the scope of the procurement beforehand. This approach appears to be consistent with government aims to enable greater ownership and choice by local Trusts, offers efficient contracting and pricing arrangements through economies of scale, and the Trusts are still able to utilise the central CfH funds (something that they cannot do otherwise.)

Only Community Health Care has started in procurement, with BT, CSC and Logica all competing for this business.

From a technology deliverability perspective, this procurement approach presents no issues provided that the best practice standards which have been proven and utilised in solutions deployed in other trusts are replicated in each of these. The Interoperability Toolkit (ITK) developed by CfH is one such element, but it remains unclear how consistency and compliance will be ensured for IT architecture standards, interoperability with the Spine and with other national applications to obtain value for money. This should be addressed in advance of implementations.

The Outline Business Case for the ASCC Southern Communities project has not yet been approved because of concerns on the overall confidence of delivery of the programme and the relevance of the programme given government proposals for change within the NHS.

The solutions available through the framework are tried and tested. The ASCC approach is aligned to allowing greater local choice of solution.

Stopping the use of the framework will slow progress in a region which has already been disappointed by Fujitsu withdrawal. The only alternative is multiple full procurements based on the same supply base.

A recent Gateway Review concluded that the Acute procurement was Amber/Red due to the tight timeframes in delivering this procurement before the ASCC framework expired in January 2012.

Our view is that while the framework is extant it seems sensible to allow ASCC to proceed as the procurement vehicle for the South, until it expires in 2012. Those care settings which are not delivered in the timescale will have to commence separate procurements.

5.3 North, Midlands and East (NME)

In the NME, the patient administration systems are delivered through CSC and a mixture of:

- Lorenzo release 1.0
- Lorenzo release 1.9
- SystemOne
- some legacy implementations of iSoft iPM/iCM solution

From a technical delivery perspective, SystemOne and the legacy iPM/iCM solutions are comparable in maturity terms with RIO and Cerner Millennium.

Aside from the Lorenzo development problems described below, CSC has deployed other systems to 54 Community, 53 Child Health, 6 Ambulance and 1407 GP sites in the NME region, plus 136 Prison Health systems nationally and taken over the PACS systems in the South from Fujitsu.

5.3.1 Lorenzo

Annex B assesses confidence levels in Lorenzo development in greater detail, but the following issues summarise the overall technical position.

Productisation

The productisation of Lorenzo is not mature. This is evidenced by the fact that bespoke code changes are still being used in response to requirements from the early adopter trusts. This issue will be exacerbated if the remaining product development (of the modules referred to as Deployment Units) is not completed before future implementation roll-outs commence.

Installation

A critical point is the need for a “smooth and efficient” process for installation, but one which is owned and driven by the local trusts. There is also a requirement for significant Business Process Redesign or Re-engineering as part of an installation. The methodology as presented at a high level by CSC is comprehensive, but it is unclear as to whether the NHS understand the potential impact this will have on front line staff in each instance of implementation. The early adopters have contributed significant effort and commitment to enable the early work on Lorenzo R1.9 to progress to its current state.

How the Lorenzo product will enable business exploitation and business value realisation needs to be defined and explicitly agreed, to assist Trusts.

Management of consistency, standards and re-use

While it is expected that each Trust will provide resources to take part in driving the changes implicit in installation for their trust, there will be a need to manage consistency standards and re-use across NME during the rollout to explicitly learn and manage best practice. It is unclear where NME ownership of standards and the knowledge base will reside during the Lorenzo roll-out.

Without a central NME implementation team to manage the lessons learnt and knowledge base gained during and as a consequence of each implementation, the methodology and its impacts on each subsequent trust will continue to be immature. A best practice implementation team should be in place to support effective re-use, consistency and limit deviation.

Confidence in delivery to multiple trusts

The CSC template for delivery indicates 3 stages of activity: local design that takes 16-25 weeks, prepare for go live that takes 6-8 weeks and go live which takes 4 weeks – so an end to end process in a given NHS trust takes between 26 and 37 weeks.

The size of the local CSC team used for delivery was quoted as about 30 people. There is a need to be certain about the capacity and capability of CSC to furnish sufficient skilled resources to undertake the level of roll-out needed to satisfy the existing schedule. During the review it was mentioned that on occasion, people needed to leave the Morecambe Bay activity to go to the Birmingham installation at short notice to resolve problems.

At this stage of the programme, CSC skills, schedule and utilisation rate, including leveraged resources, should be available to support a proposed roll-out schedule. Specific cost,

resource levels, skill types, duration of engagement need to be defined and impacted against the NME trusts ability to deliver these to support a potential implementation timeline.

5.3.2 Relationship between development and delivery

To de-risk the overall delivery the risks, to technical development delivery, the issues impacting business delivery, installation and roll-out, should be considered and acted upon to enable effective delivery.

Separation of development from deployment should be considered. This would have the effect of removing a number of risks and issues in a single stroke. Many of the complexities inherent in the current approach are a consequence of attempting to manage:

- parallel development of the underlying technical platform, with;
- parallel development of the requirements from multiple trusts, with;
- parallel definition of the productisation approach, with;
- parallel definition and levelling of the installation methodology, with;
- parallel re-engineering of individual trust activities based on an incomplete platform.

All of this is compounded by significant changes in the structure of the NHS over the next few years which will inevitably have an impact on the requirements of Lorenzo. This will lead to further development and release of the platform which needs to be stabilised before this further change.

5.3.3 An architecture gap

In undertaking the review it is apparent from a technical perspective that there is an undefined gap in scope of services.

The gap exists between the level of detail in what would be called a business services architecture i.e. what does each Trust do and how it does it, and the IT architecture which should specify the technical components used to enable those business services to be delivered.

This has been partially filled with the informatics work for national infrastructure and applications and the definition of standards for interoperability, but for locally delivered services it has not been clearly defined.

This could lead to overlap and duplication in the delivery of LSP and ASCC technology solutions, especially Lorenzo, where the base build is incomplete and is being configured and customised as implementation unfolds. It will also make it difficult to apply consistent benefit realisation metrics and value between regions, suppliers and systems being utilised

6. COMMERCIAL ASSESSMENT

6.1 Supplier status

<Text Redacted >

Despite this and the re-organisations that have been undertaken in the last couple of years the structure of BTs programme has meant that they are in a reasonable position. They have confirmed that they can look across the programme as a whole and, whilst the position is less favourable than would have been achieved with full delivery, the situation does not seem to be one which could put them into a walk-away position without a major threat to the Acute rollout programme. The product they are delivering appears to be stable and whilst it is time consuming to rollout has reasonable support even though the flexibility may not be to the level desired by all customers or perfectly positioned for the future. Their key subcontractor Cerner appears to be sound both financially and in terms of growth.

CSC has taken over the 2 regions that were originally awarded to Accenture giving them a total of 3 out of the 5 across the country. CSC is also responsible for a proportion of the PACS delivery which has been deemed to be a success and which is in stable running condition. The revenue for the strategic system Lorenzo is linked to its ongoing development so that there is not only delay in receiving revenue but also considerable cost in supporting the development of the product. I-Soft, who are developing the Lorenzo product is not a scale company and whilst it has a product suite which generates income, the scale of the investment is significant. CSC is currently in the process of acquiring I-Soft.

<Text Redacted >

In London the situation reached a head with the implementation at the Royal Free where the crisis point resulted in an ultimatum on both sides to either deliver or face total failure. Whilst the resolution was not smooth the position that has been reached seems to have been one where there is now a significantly increased level of confidence from all parties that the planned implementations can be delivered. The currently proposed plan for rollout is limited in the number of trusts that it needs to deliver, which allows for more focus to be applied to individual implementation. Whilst not wanting to downplay the risks there does seem to be both managerial and planning confidence in the ability to set and hit targets with reasonable degrees of accuracy and there is verbal assurance that the level of understanding of the effort and activities required for a successful implementation exists to a much greater degree than was previously held. This has come about in part due to the implementation of partial solution functionality, not because full system capability does not exist but because it has not been turned on meaning that the implementation does not have to be carried out on a big bang basis. This does not mean that the control functions and resources are available but does support a higher degree of confidence than would have been possible even 6-12 months ago. We endorse this improved confidence level and it seems sensible to continue with this part of the programme.

In the NME there is still a significant degree of uncertainty both about the planning of implementations and also the capability of the solution. The 4 key trusts chosen to implement the Lorenzo solution are in very different situations. University Hospitals Morecombe Bay is close to sign-off whilst Pennines Trust has stated its desire to leave the programme. Birmingham Women's Hospital Trust is being held back by one issue which views have suggested are about a difference of opinion with the Supplier believing that they have met the Deployment Verification Criteria (DVC) whilst the Trust is not happy about the level of functionality delivered. CfH expect to resolve this difference of opinion soon.

The current implementation is rolling out Lorenzo 1.9 which is a long way short of the full functionality of the contracted solution which has 4 stages of functionality and is intended to be rolled currently out to 221 trusts.

<Text Redacted >

6.3 CSC Options Appraisal

As a result of the delays and in the light of a CSC proposal for de-scoping Lorenzo deployment, the NHS has investigated a number of options that could be taken.

<Text Redacted >

Do nothing was not an option as it would only allow the situation to deteriorate

<Text Redacted >

- The certainty that must be imposed over any plans in terms of both resource and obligation

These considerations lead to the development of a view of how the next steps should be constructed in order to progress the LSP work with a particular emphasis on the Acute sector solutions. The actions below are focussed on the position with CSC as this is felt to be the major concern but similar rigour should be applied to the ongoing development of plans and programme management within the work BT is carrying out.

6.5 Next Steps

If there is to be any consideration of continuing with the Lorenzo development a tightly controlled time an agreed limits that should be set to agree a plain English agreement covering all necessary aspects of activity and obligation both in terms of development and deployment and certainty on both the allocation of the obligations and the consequences for failure to agree. This should include full understanding on how historic balances and sums as yet unpaid will be treated. It should also include the following.

. <Text Redacted >

- Clear dates for the development of the Deployment Units should be sought which are agreed, assured and fixed. This will form the basis of the understanding that there can be no excuse for failure to deliver and that clear fault will be established.
- Standard deployment plans will be produced giving certainty on activities efforts and obligations so that all parties can identify what is expected. No Trust should enter the deployment phase without the necessary resources to deliver and the commitment to meet its obligations.
- The NHS should be present at the table with the ability to commit to the resource, operational and sequencing consequences of delivering whatever is deemed to be the viable number of trusts necessary to reach a deliverable agreement.

- Trusts must sign up to the programme on the basis of a clear understanding of the requirements and outcomes and with sufficient commitment from the NHS on the provision of any necessary support.
- There needs to be a shortened chain of direct responsibility. There should be a direct link between the Trust Chief Executives and David Flory with regard to the responsibility for sign up management and delivery of local obligations.

A firm Walk Away position must be determined before renegotiation commences in case agreement is not reached.

If agreement is reached this should then be translated within a further agreed period into a contractually binding documentation including plans.

In the event that the lead individual believes that it will not be possible to achieve any of the key actions within the set time period in terms of either the plain English agreement, the contract documentation or the agreed plans then the decision to stop the element of the contract relating to the deployment of Lorenzo should be taken and the most cost effective route to exit the relevant element of the contract should be taken.

7. THE MARKET FOR HEALTH CARE PRODUCTS AND SERVICES

7.1 Current status

In terms of a Patient Administration System (PAS) there is only a limited number of alternative suppliers to Cerner and I-Soft's existing product ranges, with only McKesson and GE Healthcare providing products ready to use within the NHS trusts.

In the London LSP region of the 32 Acute Trusts, 15 Trusts plan to use Cerner Millennium, five Trusts will continue to use I-Soft legacy systems and the remaining twelve Trusts use a mix of mix of GE and McKesson solutions.

There are no Next-Generation solutions fully available for use in the NHS with I-Soft's Lorenzo being the most developed.

The situation with Mental Health Trusts is even more stark with only Cerner's RIO being a viable solution going forward (CSC intends to roll out RIO instead of an I-Soft solution in the NME).

7.2 A future (regulated) Competitive Market

Where local ICT services are obtained by Trusts and GPs they will choose from the market. In order to ensure connectivity and interoperability the products they choose must comply with rules and technical standards. This already applies to private sector healthcare providers.

The Interoperability Toolkit (ITK) developed by CfH provides a basis for some form of accreditation of products' connectivity to the Spine and network, which is an essential prerequisite for the market to operate effectively for the NHS.

There will need to be a form of a regulation around connectivity standards and compliance rules which enables choice of product and service provider by Trusts. This should also ensure consistency with the wider Government IT strategy where appropriate.

Where Government-wide agreements exist to achieve value for money through buying power the Trusts should be required to consider these when making local decisions.

There is a risk that costs of procurement and the prices for services will increase through fragmentation of provision unless this risk is addressed by the future arrangements.

The lack of viable competition makes the possibility of a fully open and regulated market at this stage challenging. The Department of Health with the NHS Trusts will need to make any future plans for procurement strategies at the earliest possible stage to ensure that there is viable market place for competition when going to the market from 2014 onwards.

The commercial skills able to manage and procure ICT services are not deeply embedded throughout the NHS. This has manifested itself as scope creep, or requirements change in-flight. Most Trusts will only undertake a major IT procurement once in a generation of managers, so future arrangements should recognise the need to mitigate these risks. The proposal to establish HIE as a source for pooled skills and expertise would be an approach to address this concern.

ANNEX A – DELIVERY CONFIDENCE ASSESSMENT

The table below sets out our assessment of delivery confidence in the various components.

COMPONENT	RAG	COMMENTS
National Infrastructure		
Spine	BAU	All original scope and requirements delivered. Now a key part of NHS infrastructure.
N3	BAU	Existing contract will need to be extension or replacement.
NHS Mail	BAU	Uptake increasing.
National Applications		
Choose and Book	BAU	Take-up still an issue Approximately 52% of GP to first out patient referrals are currently being processed via Choose and Book. The Choose and Book (CAB) contract expires on the 15 th December 2011.
Electronic Prescription Service	A	Release 1 delivered. Main benefits come from Release 2.
Secondary User Service	BAU	Potential further development and spend
Summary Care Record	A	Capability in place. To date, over 6 million records have been created, and around 700 Summary Care Records are being viewed as part of the care process per week. Scope of data has been reduced and removed objections on privacy grounds.
GP2GP	AG	80% of functionality in place. Incompatibility issues with some GP systems. Only 59% of GP practices in England can transfer records using GP2GP.
QMAS	BAU	Contract extended.
Local Applications		
PACS	BAU	100% implemented. Some further development planned.
LSP – London	AG	Roll out plan in place for next 2 years. Issues – supplier capability to deploy at scale; increasing confidence around Trust readiness and capability.
LSP – North, Midland and East	R	A large number of non Acute and some Acute using interim product, for the strategic solution (Lorenzo) the delivery has been poor. Current plan agreed not to be deliverable. <Text Redacted >
South	R	Most non-Acute (and a few Acute) implementations are taking place/planned. No contract cover for 19 PCTs, 5 Ambulance Trusts, 29 Acute Trusts and integration services. <Text Redacted >

ANNEX B TECHNICAL ASSESSMENT OF LORENZO DEVELOPMENT

Risks to the Deliverability of TARPA (confidence in development of Lorenzo product)

<Text Redacted >

Overall assessment of likelihood of TARPA development delivery confidence

<Text Redacted>

The composite of risks identified has a detrimental impact on overall delivery confidence.

<Text Redacted >

ANNEX C - STATUS OF DELIVERY ROLL OUT

The tables below, showing deployment figures as at 23rd May 2011 illustrate progress by area in the delivery of both strategic and interim solutions.

London

Care Setting	Number of Trusts	Number of Trusts under contract	Strategic	% delivered	Interim	Total	% Strategic Deployments delivered
Acute	31	15	8	53%	0	8	53%
Community / PCT	31	29	29	100%	0	29	100%
Child Health	31	30	27	90%	0	27	90%
Mental Health Trusts	10	8	8	100%	0	8	100%
GP Practices	1538	0	-	-	-	-	-
Ambulance	1	0	-	-	-	-	-

South

Care Setting	Number of Trusts	Number of Trusts under contract	Strategic	% delivered	Interim	Total	% Strategic Deployments delivered
Acute	40	10	7	70%	0	7	70%
Community / PCT	31	12	12	100%	0	12	100%
Child Health	31	12	12	100%	0	12	100%
Mental Health Trusts	14	13	13	100%	0	13	100%
GP Practices	1886	0	-	-	-	-	-
Ambulance	4	0	-	-	-	-	-

**North
Midlands
East**

Care Setting	Number of trusts	Number of trusts under contract	Strategic	% delivered	Interim	Total	% Strategic Deployments delivered
Acute	97	97	4	4%	20	24	4%
Community / PCT	90	90	57	63%	48	105	63%
Child Health	90	54	53	98%	0	53	98%
Mental Health Trusts	36	35	3	9%	14	17	9%
GP Practices	4961	4388	1407	32%	0	1407	32%
Ambulance	6	6	6	100%	0	6	100%

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