IM&T 3-YEAR STRATEGY

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1 Project Initiation Document History

1.1 Document Location

The source of this document can be found at:

NHS Shetland IMT 3-Year Strategy v0.6.doc

1.2 Version History

Date of this Version: 6th January 2010

Date of Previous Versions:

Version date	Previous version date	Summary of Changes	Changes marked
0.1	N/A	First draft.	N/A
0.2	06/10/2009	Updates from SMT	N/A

1.3 Abbreviations

A&E	Accident and Emergency
Clinical Portal	Clinical portal is an electronic window which allows clinicians to access different pieces of information about individual patients in a 'virtual' electronic patient record derived from a variety of different patient databases.
DHCP	Dynamic Host Configuration Protocol
eKSF	Electronic Knowledge and Skills Framework
GPIT	General Practice Information Technology system
HEAT	HEAT targets are a core set of ministerial objectives, targets and measures for the NHS.
ICT	Information and Communication Technologies
IM&T	Information Management and Technology
ISG	Information Support Group
ITIL	Accredited standard for IT service management
LAN	Local Area Network
Nhsmail	National mail service provision
PACS	Picture Archiving and Communications System

PAS	Patient Administration System
PMS	Patient Management System
Prince 2	Accredited standard for project management
SIC	Shetland Islands Council
SMT	Senior Management Team
WAN	Wide Area Network

Foreword

The way we deliver services to our customers is constantly changing, and we have to be able to respond to these changes. The extent to which the delivery of our direct services to patients is increasingly dependent upon fast, seamless IT support. As part of modern healthcare delivery, technology plays a vital role in ensuring that information is accessible to assist in faster diagnosis and treatment and to streamline administrative process. eHealth has become an umbrella term for providing IM&T services (computers, information and telecommunications) that directly support the clinician to improve patient care. It does this by combining traditional Information Technology and Information Management practices with patients and clinical requirements and experiences as the prime driver.

Over the course of 2009 there has been some major resources and improvements made within the IT arena to ensure the imminent introduction of several critical major systems are implemented appropriately such as the Patient Management Systems (PMS) the long awaited GPASS replacement, the national Picture Archiving Communication System (PACS) along with a desktop refresh programme replacing approximately one third of the secondary care desktop estate

Apart from those headline projects, there is a long list of other development, upgrades and refreshment work that is ongoing across the Board where we are investing significant sums in both rolling programs and new projects, playing into regional and national development and procurement processes.

We need to create services that are sustainable and fit for the future and to do so we need to work with our partners both in NHS and other sector colleagues. This strategy is about realising this vision.

We are transforming and we will continue to transform our services using the Key Values set out within this strategy, developing our role in the national projects and getting us fit for purpose.

The strategy marks the first step of our change.

Lorraine Hall FCIPD

Director of Human Resources and Support Services

2 Executive Summary

2.1 Introduction

NHS Shetland Information Management & Technology (IM&T) has developed its Strategy, to provide clarity on the measures and goals the service have set and importantly how these are intended to be achieved over the next three years.

This sets out the direction of the IM&T service underpinning the eHealth strategy to support the overall objectives of NHS Shetland. Fundamentally this strategy details the key principles the service will adopt and adhere to over the period to ensure tactical changes in priorities are governed against this strategy. Whilst this Strategy has been set for a three year period there is recognition that prioritisation going forward will reflect the national Healthcare Quality Strategy, the Board's Clinical Strategy and the Board's Property Strategy to ensure that the infrastructure supports the direction that is required to deliver sustainable quality services.

An Equality Impact Assessment has been completed to support this strategy.

2.2 Vision statement

"NHS Shetland will deliver patient care to the highest level and improve the health and wellbeing of the local population within the resources available directly and through partnerships with organisations and individuals."

2.3 Benefits statement

The specific benefits identified within the strategy are:

- Stable and available Information and Communications Technologies (ICT) infrastructure.
- Measurable and reportable change management.
- Managing effectiveness through standard processes and polices.
- Improved productivity and satisfaction levels.
- Partnerships aligned to the strategy.

2.4 Current Position

Throughout 2009, significant inroads were made in addressing the underlying technology which through this strategy can be built upon to further improve; service management, service availability and service continuity, all of which are becoming increasing critical in the delivery of frontline services.

As the dependence on core infrastructure increases at the user end, there has been recognition of service based issues that have resulted in investment for a number of core systems. For example the Helix Patient Administration System (PAS) is fundamental to medical record tracking for medical records staff, or the EDIS Accident & Emergency system, is core to tracking A&E wait times.

We have seen improvement to our network infrastructure, however, this still requires significant update and upgrade work in order to shift the current perception of services and become a true enabler of health services at the front-line. This will be carried out in consultation with staff, service users and partnership and is part of our action plan.

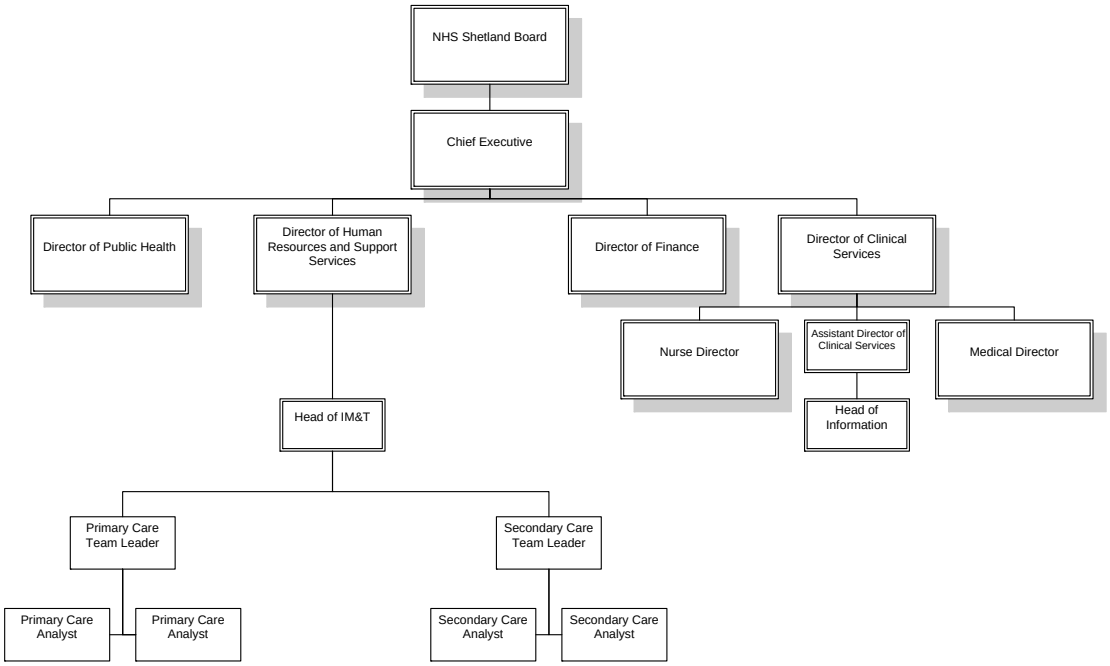
We have also seen significant improvement within our desktop and server estate, providing enhanced and more efficient access to electronic data in a more secure and stable environment. For example, remote network access for SMT members and mobile access for email servers for staff off-island.

We have seen year on year growth in the user population, desktop devices and server estate and continue to provide high quality support in the face of increasing demand for information and our growing dependency on highly available systems for clinical services.

To sustain the ongoing development of IT we need to ensure that the core skillset of the IM&T team keeps pace with technology developments. We will achieve this by ensuring that staff's learning and education is up to date via the eKSF process. Over the last 18months the Board has had a wider reliance on the temporary employment market to maintain services. This is currently being redressed with the team to ensure that going forward the Board has an effective and sustainable service.

Governance arrangements for projects and improvements have been partially adopted and fresh arrangements need to be adopted across IM&T to ensure appropriate levels of business and cross-party arrangements are included.

2.5 Departmental Structure



One of the outcomes of this strategy is that by March 2011 the IM&T structure will be reviewed in conjunctions with our partner organisations to ensure long term sustainability of services within our existing budget.

2.6 Key Values

The Key Values are the guiding principles which will oversee the strategy for the next three years. Whilst individual priorities and projects will undoubtedly vary the Key Values will remain the cornerstones of the IM&T vision and ultimately determine the rationale and viability of initiatives that fall within this strategic period.

1. Positively impacts patient care.
2. Improves accessibility and availability of services.
3. Is financially, service and environmentally sustainable.
4. Provides added value.

These Key Values will be used to assess the suitability of projects by IM&T during the period the strategy is in effect and as such will support the basis for the governance and business case criteria.

2.7 National contributions

NHS Shetland is involved in a number of national projects. Picture Archiving and Communications System (PACS) has been completed throughout 2009 as has the

rollout of Nhsmail. The drive for 2010/2011 will be the Clinical Portal, GPIT and HEAT targets.

Other projects such as the Patient Management System (PMS) are likely to be financially restricting due to the size and geography of the Board. Joint working initiatives are being investigated for this currently, however, history would indicate that this is likely to continue to be financially challenging for the future.

2.8 Local Projects

There will continue to be a number of local projects rolling and the Key Values will be used to prioritise these over the period of this strategy. Currently there are approximately thirty local projects of varying magnitude and these need to be aligned and prioritised in terms of funding and implementation dates to maximise investment and resource constraints. Business cases will require to be provided for all new local projects going forward to enable us to measure key values. All new local projects will also be considered in the context of the forthcoming clinical strategy.

2.9 Delivering the Strategy

This strategy sets out the guidance and tools to deliver the projects. The re-definition of governance and prioritisation of projects will support the delivery of the strategy.

3 IM&T Vision for NHS Shetland

3.1 Strategic Objectives

The IM&T strategy supports NHS Shetland's strategic goals and will support the delivery of both by continuing to:

- Provide an infrastructure capable of delivering the vision;
- Support the delivery of "Better eHealth: Better Care";
- Govern and manage change;
- Review Standards and Policies;
- Ensure all appropriate resources have relevant skills;
- Ensure our staff, suppliers, patients and third parties are regularly kept up to date on IM&T changes taking place;
- Deliver this strategy in accordance with our Equality and Diversity strategy; and
- Collaborate and drive joint working initiatives.
- Align with and support the forthcoming clinical strategy.

4 Provide a Capable Infrastructure

4.1 Current Position

Significant inroads have been made to addressing the core infrastructure estate throughout 2009, however a number of key development areas remain in order to ensure that the architecture estate is truly capable of meeting the current and future needs of the business. These include; Local Area Network (LAN) / Wide Area Network (WAN), lack of use of Dynamic Host Configuration Protocol (DHCP), backup, monitoring, asset management, change control, data centre core operating conditions. In addressing these, we will reduce ongoing maintenance costs and reduce the time-to-fix timeframes. The cabling work already completed within Gilbert Bain hospital has yielded significant improvements in network response timescales and reduced number of network reported faults. It has further improved the capability to trace network faults reducing downtime.

4.2 Strategic Objectives

Significant investment has taken place during 2009 to the IM&T budget, which has been prioritised to enable the implementation of a number of improvements to the base infrastructure as an enabler for future business applications and business improvements.

A costed prioritised work plan will be presented to Senior Management Team that highlights the delivery of value added services.

Over the next three years we will develop the infrastructure by:

- Implementing and securing a stable and more robust WAN environment.
- Upgrade and housekeep the LAN infrastructure.
- Improve network management and reporting.
- Standardise hardware, software and processes.
- Improve and enable secure remote and mobile working practices.
- Manage change and implementation.
- More effectively manage our IM&T assets.

4.3 Benefits Statement

Achieving this baseline infrastructure foundation is critical to achieving our wider aspirations as a service. These changes will improve the ongoing availability and stability of our systems and allow front-facing colleagues to concentrate on delivering patient care whilst being confident in their support systems.

5 Support "Better eHealth : Better eCare"

5.1 Current Position

Hands-on involvement in national projects is limited largely due to resourcing constraints. Mandated projects such as PACS have been delivered and plans will be developed to implement Clinical Portal and HEAT targets. Other national initiatives which are cost effective are being considered and in some cases implemented, such as Nhsmail.

The eHealth Programme is a national programme designed to change the way in which information and related technology are used within NHS Scotland in order to improve the quality of patient care. The eHealth programme has objectives around the use of clinical portal, primary and community care development, management of patient journeys and the good governance and assurance around these projects. NHS Shetland considers these projects to be critical to the ongoing improvement of patient care and contributes regularly to the national forums.

eCare is the name given to the Scottish Government's multi-agency information sharing framework which covers, amongst other aspects, consent, standards, security, procurement, organisational development and technical issues relating to the electronic sharing of personal data. NHS Shetland is currently working in close collaboration with Shetland's Islands Council around a number of key information gathering / sharing projects which will have significant benefit on patient care pathways.

Some national deployments are prohibitive due to the national agreements that have been agreed, largely due to the relatively small user and patient population of NHS Shetland. On this basis, NHS Shetland is exploring consortia bids with other larger health boards to ensure continuity of improvement of care to NHS Shetland patients in line with expectations across the rest of Scotland.

5.2 Strategic Objectives

NHS Shetland will continue to review and express interests in utilising national initiatives however we recognise that we are constrained by location and size in terms of influence.

Over the next three years we will:

- Understand and develop opportunities to act as a "pilot" Board for national initiatives.
- Formalise joint working relationships to improve cost justification.
- Increase awareness at a national level for tiered national agreements which offer comparable benefits to all Boards.

5.3 Benefits Statement

We understand our local constraints and by increasing awareness and formalising joint working arrangements we can ensure our patients receive the best possible care.

6 Govern and Manage Change

6.1 Current Position

Whilst the IM&T department operates to known working procedures, we need to document these appropriately; there are a range of policies that IM&T will be working on updating during this lifespan of this Strategy. The introduction of ITIL service management (a best practice standard within IM&T) is also recognised as being significantly beneficial to the entire organisation and introductions to this work have now been completed. The intention is to ITIL register the entire IM&T team throughout 2010

Change management process within the department is emergent and requires to be documented more fully to enable more rigorous management and control management processes.

6.2 Strategic Objectives

The management and alignment of change is critical to IM&T's success and during these periods of significant change it is important to have sufficient and robust governance arrangements in place.

A significant focus of this will be the impact and transition of projects in to delivery and ensuring there is sufficient management of change during this period and throughout to measure benefits realisation.

This will be achieved over the next three years by:

- Reviewing existing arrangements;
- Consolidating and linking groups within an overall structure;
- Standardising processes and documentation;
- Defining approvals and measurement criteria;
- Aligning to the Key Values;

6.3 Benefits Statement

Measuring and reporting on initiatives is critical to demonstrating the business case has been met and the benefits realised. These arrangements will ensure there is a system to capture changes at all levels and measure their success against the guiding principles of the strategy.

7 Standards and Policies

7.1 Current Position

Operational standards need to be reviewed to ensure their appropriateness in today's delivery environment. Appreciation of ITIL and Prince2 as industry standards for service management and project management respectively, and its relevance within the organisation need to be determined.

Security standards and the recognition of data sensitivity and data distribution need to be more fully understood as is the risk to data loss from whatever means.

The Head of IM&T has been appointed as the Board's IT Security Officer and an overhaul of the existing IM&T Security Policy has been concluded throughout 2009. A number of proactive steps have also been taken within IM&T to improve network / account security, although there is recognition that further work is required within this arena.

Users receive essential training in systems, although there is significant opportunity for more expansive training, and this coincides with operational standards and policies such as Usage for Internet and Email, Joiners, Leavers and Movers, IT Security, and Passwords as some examples.

7.2 Strategic Objectives

The scope of this is extensive and will touch everyone within the organisation at some point. NHS Shetland will become an organisation that is more confident and can demonstrate a robust approach to the delivery of systems and technology in support of excellent patient care.

These objectives to be achieved over the three years by:

- Confirming the standards and policies it strives to achieve.
- Reviewing existing and creating new policies where appropriate.
- Identifying system requirements for current and future needs.

7.3 Benefits Statement

Standardising and managing effectiveness drive performance and culture and during times of change this is critical. Realigning existing processes and increasing awareness of individuals and groups roles towards the vision improves the effectiveness of the approach as does ensuring there is clarity across the organisation.

8 Skills and Training

8.1 Current Position

There remains a significant development opportunity in increasing end users expectations of their IM&T service. Following significant investment, 2009 saw considerable improvements in the estate architecture, however, historical trend coupled with a lack of expansive training has left users with low expectations of the service. This at times has resulted in duplication of activities and reduced productivity as users continue to work around systems rather than fully utilise their functionality.

As part of the work undertaken with partners around a sustainable future service provision the skills required to deliver this Strategy and organisational objectives will be developed in line with eKSF and Performance Reviews.

8.2 Strategic Objectives

Users should be capable of utilising their business systems to improve and support their daily activities. They need to have the opportunity to understand the systems and the functionality in order to apply this to their work and improve the overall operation of the business.

Support skills should be aligned to the systems and activities of the business with core skills capability in the chosen delivery method and formalised. Non-core activities can be sourced on an ad-hoc basis but there should be frameworks for accessing this in a means relative to the situation.

These objectives will be met by:

- Baseline current position.
- Confirming core and non-core services.
- Identifying training plans as part of the appraisal and eKSF process, as aligned with our HEAT target.
- Capturing training needs for users.
- Establishing training mechanisms (on-line, one-to-one, classroom, peer).
- Training needs and plan core to business case justification.
- Re-baseline the strategy annually to ensure that it still meets the requirements of our Business.

8.3 Benefits Statement

Productivity and satisfaction levels will be increased across users and will be measured by user feedback.

9 Collaboration and Joint Working

9.1 Current Position

Collaboration within NHS Shetland is delivered within the standard means of engagement, such as face-to-face, telephone and email. This format extends to other Boards and agencies as required.

The video-conference suites across the estate have led to improved remote access arrangements for patients.

Joint working arrangements are usually engaged to deliver specific services, for example visiting consulting services, or for national initiatives as described in section 4 above.

Collaborative working with the Shetland Islands Council (SIC) is currently within its infancy. Basic firewall changes have been made within each organisation to enable collaborative working and an initial pilot exercise for collaborative working between NHS and Social Work is presently underway for single shared assessment. Further collaborations with SIC are expected in the future to drive joint efficiency and ensure sustainability.

9.2 Strategic Objectives

Due to the physical and geographical constraints of NHS Shetlands it is important to make use of collaboration tools. These can drive changes in culture to improve team performance, communication and outcomes. Collaboration should be achieved through a variety of means at a time that suits the users and not subject to transport or conditions. Collaboration tools are being increasingly exploited by organisations with remote workers and disparate teams to improve productivity and responsiveness.

NHS Shetland will achieve this by:

- Defining the business case for collaboration tools.
- Assessing suitability and effectiveness.
- Deploying and reviewing success in pilot areas before review.

Joint working extends across departments, organisations and locations and NHS Shetland strives to be an organisation that is seen to adopt shared and joint working initiatives.

This will be achieved by:

- Clearly defining strategic projects and potential strategic partners.
- Understanding and communicating our benefits to partners.

9.3 Benefits Statement

NHS Shetland will improve productivity and responsiveness across services whilst positioning strategic partners and projects to build improved capability for the future.

10 Delivering the Strategy

Delivery against this strategy is the responsibility of the Head of IM&T and progress will be reviewed quarterly at Information Support Group (ISG).

10.1 The Challenge Ahead

The challenge ahead is by no means an exhaustive list, but due consideration needs to be applied to achieve a fundamental baseline in the following areas;

- Patch management.
- Service and business continuity.
- Support resource capacity and capability.
- User training – systems and policies.
- Network capacity impacting productivity and capabilities.
- Data and network security.
- Asset management.
- Suitability of the equipment hosting facilities.
- Standardisation.
- Policy review and update.
- Account and user management.
- Governance – management and control.

11 Appendix A

eHealth Implementation Plan for 2010-2013

1.0 Background

Throughout 2009-2010, IM&T undertook a programme of work to address the underpinning architecture within NHS Shetland to ensure that a solid foundation for future expansion and development was laid. This work has made substantial progress and the subsequent three year plan intends to maximise the opportunities invested in throughout 2010-2013.

2.0 2010-2011 – Nationally Mandated Projects

11.1 GPIT (GPASS replacement)

Description	A national procurement is underway for a new GP system replacing GPASS.		
Status	Upon award of preferred supplier (which is anticipated throughout Q2 2010), the Scottish Government have indicated that a three year transfer window will be available to migrate existing services to the new provider. Beyond the three year window, each Board will have to meet the full ongoing running costs of their existing service provider (GPASS).		
Issues	Budget – the costs for GPIT are presently unknown, although a cost matrix is anticipated throughout April 2010. A full cost assessment will be carried out once the matrix becomes available. Resources – the primary care IM&T team has limited resource and the rollout programme of GPIT will need to be planned taking careful account of the available resource compliment. Training – Accreditation of training resources in GPIT and the subsequent training rollout to c100 staff.		
Benefits	Improved clinical system providing enhanced product specification resulting in improved patient care.		
Plan / timescale	Migration to new service provider is anticipated throughout 2010-2012.		
Cost	GPASS is currently centrally funded. From 2009-2010, funding provision will be pushed out to the Board and will stop financial year 2012-2013. Beyond this, NHS Shetland would need to find budget itself if we were to continue to operate with GPASS.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	High	High	Red

Patient Management System (PMS)

Description	A national procurement has now concluded for a patient management

	system to include; patient administration system, complex scheduling, clinical notes, order communications, accident and emergency, theatres, mental health clinical, maternity, clinical support tools, neonatal, drug management including prescribing and administration. The OJEU was awarded to Intersystems Trak.		
Status	The five primary Boards involved in the initial procurement are currently negotiating local contracts under the terms of the framework agreement. If additional Boards beyond the primary five take up Trak, it is highly likely that Scottish Government will procure a national license.		
Issues	Budget – the budget for PMS would largely depend on the selection of product models beyond the core PAS product. Assuming core PAS only AND that the Scottish Government were to procure the national license, there would be no license cost, and a recurring revenue cost of £74K. These figures exclude implementation costs which are largely unknown at this time. Resource – this rollout would carry substantial resourcing implications for the Board affecting a large number of key service areas for deployment and training.		
Benefits	Reduced staff training overhead achieved as a result of a common system across departments. Improved information sharing. Reduced system administration and maintenance overhead. Improved patient care.		
Plan / timescale	Initial kick-off discussions to be held Q2 2010 to understand the feasibility of being a satellite site from Grampian.		
Cost	£Subject to negotiation with Grampian and selection of product modules.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Medium	High	Amber

11.2 18 Weeks (ISURTT)

Description	For patients requiring elective care, treatment should be achieved within 18-weeks from referral.
Status	As part of the programme to meet 18 week RtT standards by March 2011, NHS Shetland has commissioned Helix systems to ensure that we can track patient journeys through admitted and non admitted pathways. This is an interim arrangement and further work will need to be undertaken in 2011-12 to analyse the benefits realisation in regard to a number of future systems options, including the national PMS and possible partnership arrangements with other providers such as NHS Grampian.
Issues	No known issues.
Benefits	Improved patient care.
Plan / timescale	Q3 2010.
Cost	£TBA.

Risk Assessment	Probability	Impact	Risk Status
	Low	Medium	Green

IAM (Identity and Access Management)

Description	National identity and access management project designed to ensure that user passwords comply with national security policies and that users get swift account provisioning and single sign-on to a pre-selected list of 10 of the major national applications.		
Status	User acceptance testing (UAT) is underway within NHS Tayside. Early test outcomes have not been positive and the project has been refreshed with a resultant number of key players from the vendor side being replaced.		
Issues	A pre-requisite to this project is the implementation of Active Directory.		
Benefits	Single sign-on for 10 of the major applications which can be centrally provisioned and will not require a desktop visit. Improved security of passwords complying with national standards. Reduction in account provisioning for the 10 systems.		
Plan / timescale	This is a watching brief throughout 2010-2011, with implementation expected throughout 2011-2012.		
Cost	£0 for 2010/2011. Costs can start to be benchmarked and planned for following successful UAT at Tayside.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	High	Green

Desktop Harmonisation

Description	National consortia bid to investigate harmonisation of the base desktop build across NHS Scotland.		
Status	A national consortia bid was placed by NHS Tayside on behalf of NHS Scotland and was awarded in January 2010. Initial project meetings have kicked off, but no tangible progress is yet available to report.		
Issues	No known issues.		
Benefits	Common operating system / desktop build across the NHS Scotland desktop estate. Improves support and cross support of desktops across Boards.		
Plan / timescale	February 2010 – Q4 2011.		
Cost	£292K fully funded by Scottish Government.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

Estates

Description	National Estates Asset Management System
Status	Health Facilities Scotland have procured 3i Studio to provide NHS

	Scotland with and Estates Asset Management software system to assist with the management of the NHS Scotland property portfolio. The system is to include healthcare facilities, owned / leased office accommodation and will provide the facility for effective, efficient and consistent data collection and analysis.		
Issues	There are no known issues.		
Benefits	Improved Estates data collection and analysis.		
Plan / timescale	Implementation throughout Q1 2010.		
Cost	£0.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

National HR System

Description	National procurement for the implementation of a new HR system.		
Status	Tender process has been initiated for a national HR system with contract award expected in Q2 2010.		
Issues	National HR is largely a watching brief for NHS Shetland at present and an issue assessment will be conducted upon award of preferred supplier.		
Benefits	Improved functionality and all sites operating from a common platform.		
Plan / timescale	Preferred supplier expected to be announced Q3 / Q4 2009.		
Cost	£Unknown. Costs can start to be benchmarked and planned for upon contract award.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

3.0 2010-2011 - Locally Mandated Projects

3.1 Active Directory (A/D)

Description	Replace legacy authentication mechanism to the network.		
Status	Our existing authentication mechanism to the network (NT4) expired Microsoft support in 2004. In order to migrate to a new authentication architecture IM&T have undertaken an upgrade programme of the application servers to ensure that they are established on a base operating system which will authenticate with the new Active Directory. This work has now concluded and the original NT4 domain controllers have been upgraded and are now running in NT4 / W2000 mixed mode. Following audit of the domain controllers, a large number of unused / legacy accounts were identified and having sought Microsoft and vendor support, both recommend setting up clean accounts on the new A/D rather than migrating legacy data which may not be required. Two pilots are underway – one in primary care and one in secondary care, as both have independent requirements. In primary care, Scalloway health centre was launched, but a network issue was identified which has halted further progress. The issue has been logged with Microsoft and the rollout to the remainder of the primary care sites in on hold until this has been resolved. A/D pilot in secondary care is currently under build for the IM&T and CHP offices, with expected launch in March 2010.		
Issues	Budget – specialist contract resources are required as we do not have the pre-requisite skillset inhouse.		
Benefits	Migration to a platform which has full Microsoft support. The new platform will be significantly faster and have the opportunity for vastly improved user security. Improved application installation capability. Improved support available via remote assistance services.		
Plan / timescale	March – September 2010		
Cost	£30K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Medium	High	Amber

3.2 Primary Care Improvement Plan

Description	In a similar manner to the work completed within secondary care throughout 2009-2010, a similar exercise needs to be completed within primary care to rationalise servers, consolidate backups, deploy DNS, DHCP and Active Directory.
Status	Works have made significant progress within Scalloway as the pilot site. Once the outstanding network issue has been resolved, Scalloway will move to full A/D with DHCP and DNS. The final follow-up activity will be to encrypt the desktop assets. The remaining outlying sites will be scheduled throughout the summer months in preparation for GPIT.
Issues	Known network names resolution issue presently logged with Microsoft for support.

Benefits	Improved supportability remotely. Improved security. Improved capability to remotely deploy software solutions.		
Plan / timescale	April 2010 – December 2010.		
Cost	£60K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Medium	Medium	Amber

3.3 Data Centre Facilities Refresh

Description	Overhaul the facilities within the Gilbert Bain Data Centre.		
Status	The air conditioning, fire alarm and fire suppression facilities servicing the Data Centre are all out of date and in need of overhaul. Replacement parts for the fire alarm system are no longer available and the fire suppression unit has not been serviced in a considerable timeframe. The air-conditioning switches off when electrical supply is lost to the Data Centre – this has caused two major incidents whereby the Data Centre had to be shutdown in order to protect the hardware.		
Issues	As per status.		
Benefits	Improved supportability of the Data Centre in the event of air-conditioning issues. Improved health and safety for Data Centre staff in attendance.		
Plan / timescale	Estates are specifying hardware for implementation throughout 2010-2011.		
Cost	£Unknown, but will be met by the Estates budget.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	High	Low	Amber

3.4 Network Upgrade

Description	Increase GBH bandwidth.		
Status	The Gilbert Bain hospital is serviced by an 8Mb N2 circuit. Provision of an N3 service to Shetland and Orkney has proven challenging in recent years, but BT have now confirmed service availability. NSS have placed an order for a 40Mb N3 circuit. Our existing firewall is a single point of failure and a second firewall should be implemented to provide a backup circuit.		
Issues	There are no known issues.		
Benefits	Improved speed of network communications between sites and externally.		
Plan / timescale	BT have quoted April 2010 for installation.		
Cost	£0 for N3 - costs will be funded by National Services. £3K for failover firewall.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	High	Green

3.5 Desktop and Server Proactive Refresh

Description	Pro-active desktop and server technology refresh.		
Status	Following a significant service improvement throughout 2009, the intention for 2010-2013 is to proactively replace the oldest hardware on the estate in a cyclic manner. A remote image server is being investigated to speed up the creation and deployment of new desktops.		
Issues	Budget – cyclic replacement is not cheap.		
Benefits	Improve frontline performance as software applications respond in a more timely manner. Improved disaster recovery / business continuity of business critical services.		
Plan / timescale	Procure desktop PCs under the national framework agreement and rollout at a rate of 12/month. Procure server hardware under the national framework agreement and expand / upgrade server technology under a pro-active programme of regular maintenance.		
Cost	£57,000 – 140 PCs per year. £57K has been funded by Scottish Government for 2009-2010 and this hardware will be rolled out throughout 2010-2011. £20K – server infrastructure per year.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

3.6 Safeboot Data Encryption

Description	Digitally encrypt data on desktop / laptop assets.		
Status	All secondary care sites have now been encrypted.		
Issues	The primary care sites cannot be encrypted until the new domain / Active Directory (see 3.1 and 3.2) strategy has been implemented.		
Benefits	Improved security of data on all desktop assets.		
Plan / timescale	March 2010 – September 2010.		
Cost	£0.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	High	High	Red

3.7 Intranet / Internet Refresh

Description	Implementation of new technology base for intranet and internet and migrate data from existing architecture.
Status	The present intranet and internet sites were built a number of years ago. Localised “data controllers” were appointed as guardians to their localised datasets. The datasets have varying degrees of quality, with some being more up to date than others. The existing Contribute product does not include version control, often resulting in multiple

	versions of the same document being made available. Sharepoint has been purchased and a graphic designer engaged to supply wireframes for the new internet site. This has been built and the bottleneck has been in securing up-to-date content for the site. In light of the challenges around content, we have proceeded with building the site with the existing content.		
Issues	The current site looks dated and would readily benefit from a visual overhaul. There is a potential for clinical risk as a consequence of the multiple versions of documents being available on the site.		
Benefits	Automatic version control, change control workflow and improved quality and accuracy of data delivered to frontline services.		
Plan / timescale	Sharepoint has been implemented on the virtual environment and data migration from existing sites are scheduled from March 2010 – Christmas 2010. The internet site should launch well ahead of the intranet throughout Q3 2010.		
Cost	1 FTE Web Officer.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Medium	High	Red

3.8 Remote Access

Description	Enable full network access for home-working / remote working.		
Status	The new firewall has been implemented with VPN capability. A pilot has been completed successfully with the Bressay nurse who now has full secure network access to Gilbert Bain, Nhsmail, intranet and SCI Store. The lessons learned from the pilot are being documented with rollout to follow to; SMT, IM&T, non-doctor islands and shared SIC employees.		
Issues	There are no known issues.		
Benefits	Improved access to policies and procedures for remote staff. Full network access improving home-working opportunities. Improved remote support for the IM&T architecture.		
Plan / timescale	April 2010 – October 2010.		
Cost	£3K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Medium	Green

3.9 Business Continuity / Disaster Recovery Testing

Description	Run a full failover of the virtual environment to the disaster recovery (DR) site.
Status	A disaster recovery rack has been built and two attempts have previously been made to cluster the production data to the DR rack. Both have failed, although valuable lessons have been learned throughout each attempt. Consultancy advice has been sought from our vendors and recommendations have been received on how best to

	proceed.		
Issues	This is a technically challenging exercise which has already proven to be difficult to implement.		
Benefits	In the event of a significant event within the primary Data Centre, the secondary should automatically and seamlessly kick-in preventing clinical downtime, resulting in better patient care.		
Plan / timescale	April 2010 – August 2010.		
Cost	£6K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	High	High	Red

3.10 Automated Software Deployment

Description	Deployment of software and updates in conjunction with A/D policies automatically to set user groups.		
Status	This project is dependent on the delivery of Active Directory (see 3.1).		
Issues	There are no known issues.		
Benefits	Improved support of the desktop estate from a remote site improving response timescales to helpdesk calls logged in relation to software deployment or upgrades.		
Plan / timescale	April 2010 – December 2010.		
Cost	£6K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

3.11 Automated Server Patch Management

Description	Deployment of operating system patches, security threat releases automatically across the server and desktop estate.		
Status	Deployment server is under build.		
Issues	There are no known issues		
Benefits	Improved security.		
Plan / timescale	April 2010 – June 2010.		
Cost	£6K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Medium	Green

3.12 Asset Management

Description	Implementation of an asset management system.
Status	NHS Shetland presently does not have a consolidated approach to asset management and at best, some areas are locally managed on Excel spreadsheets.

Issues	There is no centralised repository to inventory; asset worth, tracking status, technology refresh requirements.		
Benefits	A centralised repository enables Finance to determine the net worth of assets across the entirety of the estate from a single system. IT can identify technology refresh readily.		
Plan / timescale	Recommend implementing asset management via Sharepoint. Potential for Q4 2010 / 2011.		
Cost	£30K for engineering resource to undertake audit and input data to Sharepoint.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Medium	Medium	Amber

3.13 Network Monitoring and Management

Description	Implementation of enhanced network monitoring and management tools.		
Status	Our existing PRTG network monitors provide basic management statistics and notifications. IM&T would like to move to a platform which gives enhanced monitoring and forward planning.		
Issues	No known issues.		
Benefits	Improved data handling and proactive volume management.		
Plan / timescale	August 2010 – December 2010.		
Cost	£20K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Medium	Green

3.14 Primary Care Physical Server Security

Description	Physical security of server infrastructure within primary care.		
Status	Three primary care sites have server infrastructure which needs to be better located.		
Issues	Sensitive patient information is being stored and backed-up in common unsecure areas. Estates work will be required.		
Benefits	Improved data security.		
Plan / timescale	August 2010 – December 2010.		
Cost	£0 for IM&T, although costs expected with Estates.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	High	High	Red

3.15 Office Communications Server (OCS)

Description	Deployment of Microsoft Office Communication Server (OCS).
Status	A consortia bid was placed to Scottish Government in January 2010 of

	which NHS Shetland was one of the six Boards detailed. The bid was successful and the lead Board (Lothian) are currently under deployment for OCS following a highly successful pilot.		
Issues	Culture change – this will be a substantial change in terms of the way the Board communicates with one another and externally with other Boards. Training – there will be substantial training requirement as the software is rolled out across departments.		
Benefits	Improved open communications platform changing the way in which we interact with one another and other Boards / external bodies.		
Plan / timescale	June 2010 – September 2010		
Cost	£1.8M - Fully funded by Scottish Government.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	High	Amber

3.16 FairWarning

Description	FairWarning is a complex pattern matcher designed to identify inappropriate accesses to systems.		
Status	Fair Warning is essentially a complex pattern matching algorithm which has been designed to identify trends in data accesses across a range of systems which can be linked to its dashboard. On the 6th April 2010, new ICO legislation comes into effect which can result in penalty notices of up to £0.5M being served for serious breaches of the Data Protection Act. The Board would presently be in a difficult position to supply an evidence base around proactive protection against inappropriate access across a spread of systems. NHS Lothian have already been audited by the ICO, who were satisfied with the Fair Warning product. The eHealth leads have been given to understand that the rest of Scotland will be audited throughout 2010-2011.		
Issues	Culture change – security breaches will be much more readily identifiable and line management will need to be well versed in how best to handle these breaches. Training. Budget.		
Benefits	Improved information governance around Data Protection. Real-time monitoring of data access across a spread of systems. Meets compliance of the ICO audit requirements.		
Plan / timescale	Q3 – Q4 2010-2011.		
Cost	£32K capital, £4.5K revenue		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Medium	High	Amber

3.17 Backup Software Revision

Description	Upgrade to the latest available versions of Backup Exec software.		
Status	Our existing backup software (Backup Exec 12.5) has been superseded by Backup Exec 2010. 12.5 does not co-exist well with our virtual environment and now needs upgrade.		
Issues	Budget.		
Benefits	Improved backup of virtual environments ensuring data integrity. Improved data archiving of our primary care sites.		
Plan / timescale	December 2010 – March 2011.		
Cost	£20K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

3.18 Anti-virus rollout

Description	Implement a robust and automated anti-virus solution to both server and desktop estate.		
Status	Our current anti-virus (A/V) offering (MacAfee EPO v7) has breached end of life and is no longer supported by the vendor. Updates have to be processed manually resulting in a high level of manual intervention.		
Issues	Software has breached end of life and is no longer supported by the vendor.		
Benefits	Improved protection from anti-virus threat across both the server and the desktop estate.		
Plan / timescale	October 2010 – December 2010		
Cost	£16K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	High	High	Red

3.19 Thin Client

Description	Pilot of a Sun Ray to evaluate thin client technology.
Status	Following the end of the Microsoft EA agreement and the resultant impact of last year's true-up, a number of Boards are undertaking pilots to determine the most cost effective means of cutting their annual Microsoft licensing costs. NHS Shetland is working with NHS Lothian to pilot the Sun Ray system.
Issues	Culture change – login is via a token rather than username / password combination.
Benefits	Improved security as users move between terminals, taking their desktop with them live. Removal of generic login accounts improving security. Reduction in Microsoft licenses as server licenses rather than desktop licenses are deployed.
Plan / timescale	Q2 2010.

Cost	£0 to NHS Shetland for pilot.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Medium	Green

3.20 Data Sharing Partnership (DSP)

Description	Partnership working with Shetland Council for single shared assessment.		
Status	SIC and NHS IM&T have worked together to establish a successful technology model enabling shared posts to access both NHS and SIC applications from either site. The current technology model from the NHS perspective is a workaround and investigation into a Citrix farm / thin client farm needs to be taken forward as a long term solution.		
Issues	Budget.		
Benefits	Improved collaborative working with Shetland Council. Improved patient care through the jointly managed care plans and services.		
Plan / timescale	April 2010 – March 2011.		
Cost	Year 1 funding being met by the Data Sharing Partnership. Year 1 (2009 / 2010) £125K capital, £14K revenue. Year 2 (2010 / 2011) £77K capital, £12K revenue. Year 3 (2011 / 2012) £21K capital, £3K revenue. Funding for years 2 and 3 has not yet been agreed by the DSP.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Medium	Low	Green

3.21 Performance Management System

Description	Performance management system to aid the delivery of key organisational objectives.		
Status	As part of the ehealth strategic planning, consideration needs to be given to the procurement of a performance management system which will help us to streamline risk management, complaints handling, librarianship of external reviews, strategic plans such as the LDP and our quality and performance management monitoring arrangements. Throughout 2010-2011, the business requirements should be established.		
Issues	There are no known issues		
Benefits	Improved visibility of performance management with dashboard displays on metrics. Live data metrics available to SMT.		
Plan / timescale	Business requirements scoping throughout 2010-2011.		
Cost	£30K - £50K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

3.22 Significant (Deaf Signing Support)

Description	Video conferencing (VC) facility to provide sign language interpretation service.		
Status	The VC works over IP-based or ISDN technology, although our preferred provision is via IP. Tests have proven successful, but rollout cannot commence until the GBH N3 connection (see 3.4) has been implemented as the VC requires quality of service to be applied which is not available on our existing N2 network.		
Issues	Lack of available bandwidth prevent service being effectively and efficiently utilised.		
Benefits	Improved patient care for section of population who have a particular need and historically may have been susceptible to poorer quality of care.		
Plan / timescale	May 2010.		
Cost	£0 for IM&T, but the Significant service is pay-for-use.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

3.23 Estates / IT Helpdesk System Replacement

Description	Replacement of the existing legacy Planets Estates and IT helpdesk which has expired useful vendor support.		
Status	IM&T have entered into an agreement with NHS Lothian whereby Lothian will log our calls to a Shetland queue, and the helpdesk team will pick our calls up from Lothian's Altiris software. IM&T have recommended that Estates enter into a similar relationship with Grampian using their upgraded Planets software product.		
Issues	The existing software has breached end of life and has extremely limited support offering from the vendor in the event of a failure. The database server has on occasion locked and denied user access.		
Benefits	More robust, resilient application with development path and ability to gain new product functionality in line with any necessary changes within IM&T or Estates.		
Plan / timescale	April 2010 – October 2010.		
Cost	£4K – additional Planets licenses.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

3.24 JAC Pharmacy Upgrade

Description	Upgrade of the existing JAC Pharmacy product.
Status	Supplier has recommended that we upgrade to a later version of JAC.
Issues	No known issues.
Benefits	Improved sustainability of the product with improved long term support from the vendor.

Plan / timescale	July 2010.		
Cost	£2K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Medium	Green

3.25 Telemedicine

Description	Telemedicine is the combination of telecommunications and computer equipment to speed up clinical service delivery and rapid response decision making from remote locations.		
Status	Video conferencing facilities are now available throughout eight of the ten primary care sites. Some of the hardware has reached end of life and requires replacement.		
Issues	Lack of N3 services within primary care facilities.		
Benefits	Given the geography of NHS Shetland and the number of employees, telemedicine has enormous benefits in terms of providing live care to remote sites. Improves clinical training provision to remote clinicians to ensure ongoing registration status. Will support Generic Health and Social Care workers project. Of non-care benefit, there is a substantial reduction for NHS Shetland personnel travelling to off-island sites for national / clinical meetings.		
Plan / timescale	November 2010		
Cost	£25K		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

3.26 Community Nursing Patient Administration System

Description	Community nursing require access to a system which will manage community nursing care pathways.		
Status	In light of the GPIT and PMS, Community Nursing PAS should feed into these systems.		
Issues	Inconsistent patient data spread over multiple electronic and paper-based systems, resulting in increased clinical risk. Cannot share data between professions / departments readily. Training overhead is unquantifiable until a system is selected.		
Benefits	Improved patient care. Decreased clinical risk.		
Plan / timescale	There is presently no timescale for this project and is a watching brief in light of GPIT and PMS.		
Cost	£Unknown.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Low	Green

3.27 Primary Care Emergency Generator Desktop Testing

Description	Emergency generator testing to confirm essential IT equipment has been successfully cabled and supported by the emergency generator at each primary care site.		
Status	Generator testing needs to be run by Estates, with IT in attendance to confirm any new cabling requirements. There is no schedule currently in place.		
Issues	There is potential that business critical services have not been correctly tied to the emergency generator and in a disaster recovery situation, will suffer a loss of service. Lack of surge protection has resulted in the loss of business critical infrastructure with a resultant cost to the Board.		
Benefits	Improved confidence that business critical infrastructure is correctly protected in the event of a power outage.		
Plan / timescale	April 2010 – March 2011.		
Cost	£0 for IM&T, although costs expected with Estates.		
Risk Assessment	**Probability**	**Impact**	**Risk Status**
	Low	Medium	Green

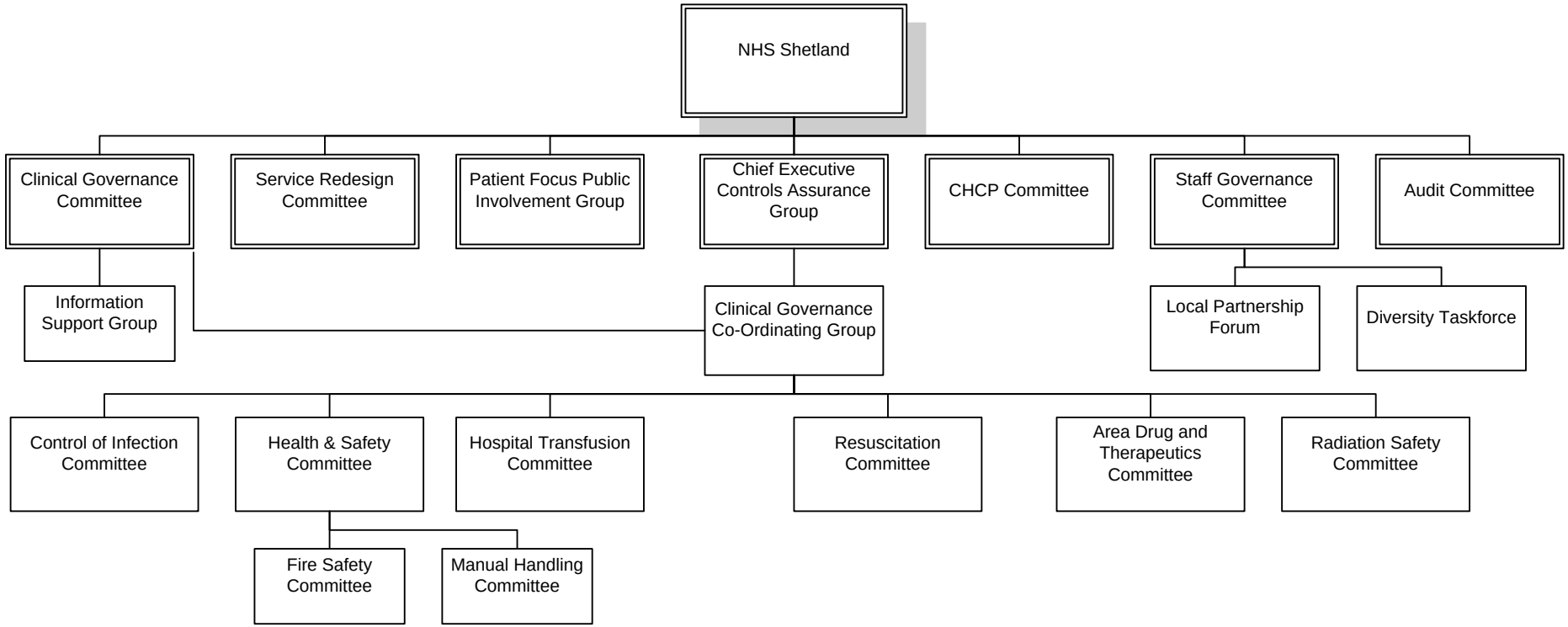
4.0 2011-2013 - Locally Mandated Projects

A brief summary of projects presently projected for years 2011 – 2013 has also been included with estimated costs where available, all projects will be prioritised to meet financial budget allocated

2011-2012	
Montfield wireless network link replacement	£50K
MS Groove deployment for collaborative project working	£20K
Desktop replacement programme	£50K
Dental Upgrade	
Deploy desktop standard build	£20K
Mobile clinical assistant pilot	£20K
Clinical Portal	
Wireless audit	£15K
2012-2013	
1Gb network switch replacement	£10K
Desktop replacement programme	£50K
Server replacement and storage programme full four-year refresh	£100K
Nurse / Practitioner prescribing	
Order comms for Labs / radiology	

12 Appendix B

Organisational Chart denoting the reporting and accountability lines for governance within NHS Shetland



13 Appendix C

Risk Management profiling tool proforma for the management of risks which could impact the successful delivery of the eHealth plan.

Risk Assessment Form

Risk Description Describe the risk you have identified, include any specific groups, which may be affected by the hazard (e.g. staff, patients, visitors etc).		
Impact and Consequences of the Risk Identified (if left untreated).		
List current controls in place		
Impact	Probability	Gross Risk

List actions which are going to be taken which you think will help to minimise the risk		
Impact	Probability	Residual Risk
Management action required Y/N List management action taken below.		
Name of the person completing the risk assessment		
Date of risk assessment		
Date forwarded to manager		
Date of review		

Figure 1: Risk Assessment Matrix

Likelihood	Consequence				
	Negligible	Minor	Moderate	Major	Extreme
Almost certain	M	H	H	VH	VH
Likely	M	M	H	H	VH
Possible	L	M	M	H	H
Unlikely	L	M	M	M	H
Remote	L	L	L	M	M

The assessed level (grade) of the risk will determine what action is to be taken. In summary:

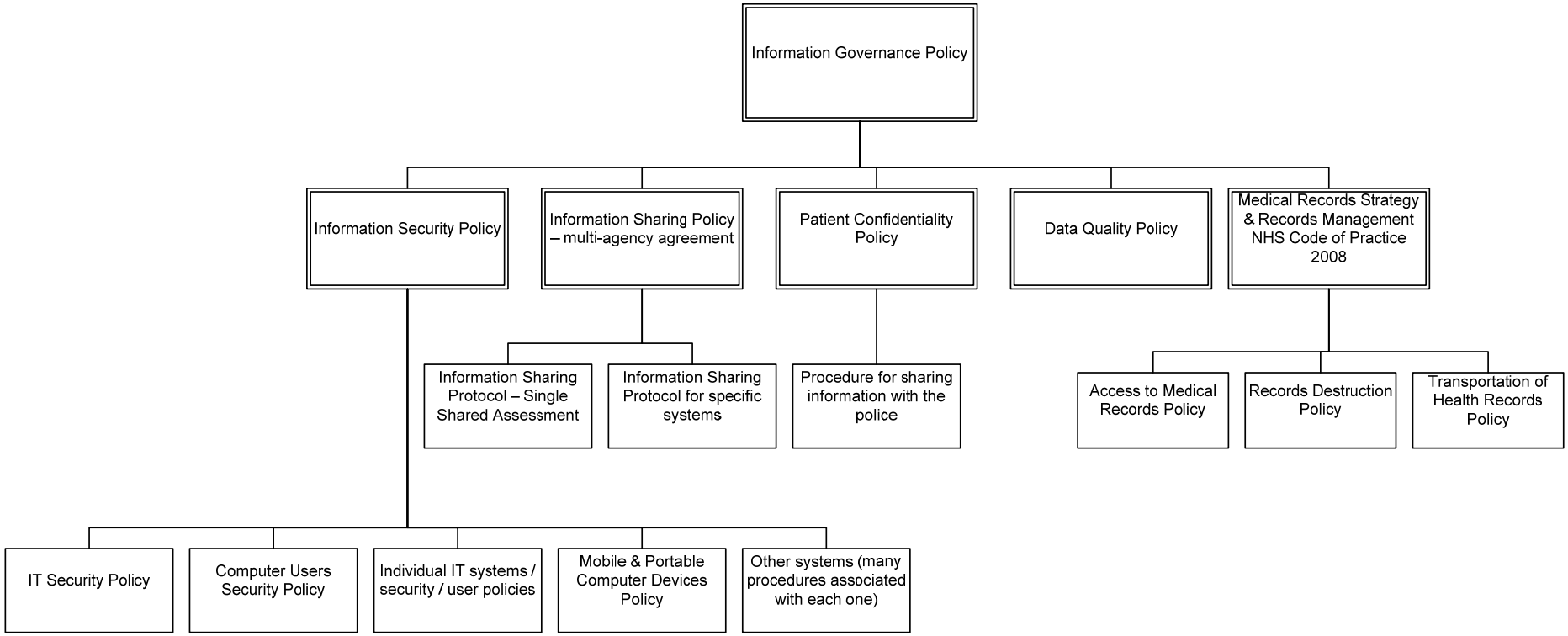
RISK RATING	PRIORITY	RESPONSE	LEVEL OF ACTION
13.1.1.1.1 Green **Very Low**	13.1.1.2 Low	13.1.1.3 None/ long term	No further action or records required
Yellow **Low**	13.1.1.4 Low/ Medium	13.1.1.5 Medium term	Departmental management action required to reduce risk as low as reasonably practicable
13.1.1.6 **13.1.1.7 Amber** **Moderate**	Medium/ High	Short term	Hospital/CHP Management Team action required to reduce risk as low as reasonably practicable
Red **High**	High	Immediate	Strategic (SMT/CAG) action/ Board level awareness required

Figure 2: Likelihood of Recurrence Ratings

Descriptor	Remote	Unlikely	Possible	Likely	Almost Certain
Likelihood	Can't believe this event would happen – will only happen in exceptional circumstances (5-10 years)	Not expected to happen, but definite potential exists – unlikely to occur (2-5 years)	May occur occasionally, has happened before on occasions – reasonable chance of occurring (annually)	Strong possibility that this could occur – likely to occur (quarterly)	This is expected to occur frequently / in most circumstances – more likely to occur than not (daily / weekly / monthly)

Figure 3: Consequence Ratings

Descriptor	Negligible	Minor	Moderate	Major	Extreme
Objectives / Project	Barely noticeable reduction in scope / quality / schedule	Minor reduction in scope / quality / schedule	Reduction in scope or quality, project objectives or schedule	Significant project over-run	Inability to meet project objectives, reputation of the organisation seriously damaged.
Injury (physical and psychological) to patient / visitor / staff.	Adverse event leading to minor injury not requiring first aid	Minor injury or illness, first aid treatment required	Agency reportable, e.g. Police (violent and aggressive acts) Significant injury requiring medical treatment and/or counselling.	Major injuries/long term incapacity or disability (loss of limb) requiring medical treatment and/or counselling.	Incident leading to death or major permanent incapacity.
Patient Experience	Reduced quality of patient experience / clinical outcome not directly related to delivery of clinical care	Unsatisfactory patient experience / clinical outcome **directly related to care provision – readily resolvable**	Unsatisfactory patient experience / clinical outcome, short term effects – expect recovery <1wk	Unsatisfactory patient experience / clinical outcome, long term effects – expect recovery - >1wk	Unsatisfactory patient experience / clinical outcome, continued ongoing long term effects
Complaints / Claims	Locally resolved verbal complaint	Justified written complaint peripheral to clinical care	Below excess claim. Justified complaint involving lack of appropriate care	Claim above excess level. Multiple justified complaints	Multiple claims or single major claim
Service / Business Interruption	Interruption in a service which does not impact on the delivery of patient care or the ability to continue to provide service	Short term disruption to service with minor impact on patient care	Some disruption in service with unacceptable impact on patient care Temporary loss of ability to provide service	Sustained loss of service, which has serious impact on delivery of patient care resulting in major contingency, plans being invoked.	Permanent loss of core service or facility Disruption to facility leading to significant “knock on” effect
Staffing and Competence	Short term low staffing level temporarily reduces service quality (less than 1 day) Short term low staffing level (>1 day), where there is no disruption to patient care	Ongoing low staffing level reduces service quality **Minor error** due to ineffective training / implementation of training	Late delivery of key objective / service due to lack of staff. **Moderate error** due to ineffective training / implementation of training Ongoing problems with staffing levels	Uncertain delivery of key objective / service due to lack of staff. **Major error** due to ineffective training / implementation of training	Non-delivery of key objective / service due to lack of staff. Loss of key staff. **Critical** error due to ineffective training / implementation of training
Financial (including damage / loss / fraud)	Negligible organisational / personal financial loss (£<1k)	Minor organisational / personal financial loss (£1-10k)	Significant organisational / personal financial loss (£10-100k)	Major organisational / personal financial loss (£100k-1m)	Severe organisational / personal financial loss (£>1m)
Inspection / Audit	Small number of recommendations which focus on minor quality	Recommendations made which can be addressed by low level of	Challenging recommendations that can be addressed with	Enforcement action. Low rating	Prosecution. Zero rating

14 Appendix D

Policy hierarchy supporting the delivery of the eHealth plan