Finance and Resources Committee 15 March 2012

Information Technology Work Plan 2012/2013

Executive summary and recommendations

Introduction

This paper sets out the Information Technology Department's work plan for the financial year 2012- 2013.

Decision

The Committee is asked to discuss and agree the work plan

Background information

This document is intended to support the HPC strategy and IT strategy, and sits alongside other departmental strategy documents and work plans.

Resource implications

The resource implications of the attached document are assumptions which are already part of the HPC budget for 2012 - 2013

Financial implications

The attached paper's assumptions are all accounted for in the current version of the HPC budget for 2012 - 2013

Appendices

None

Date of paper

2 March 2012

Information Technology Work plan 2012 – 2013

Guy Gaskins
Director of Information Technology

Version 1.0 March 2012

	2012 workplan	Final DD: None	Internal RD: None	05/03/2012	a	ITD

Contents

	2012 workplan	Final DD: None	Internal RD: None	05/03/2012	a	ITD

Introduction

As the Health Professions Council (HPC) continues to grow it maintains a cycle of continuous quality improvement to its business processes, procedures and policies. The IT function has implemented a number of changes that provide solid foundations to support the cycle of change as the HPC evolves.

In order to achieve the primary purpose of the HPC, to [1]"safeguard the health and wellbeing of persons using or needing the services of registrants", the current business strategy identifies six business objectives which embody the three central themes for the organisation: [2]*to Improve; to Influence* and *to Promote.*

The core function of the Information Technology (IT) department is to support and enable the business to realise the primary purpose through the achievement of the business objectives.

As an internal service provider, the IT function operates proactively managed services to enable current business processes to function. Also, a large element of the service is reactive to incidents in the infrastructure and changes to business priorities as HPC adapts to the changing external environment.

The challenge facing the IT department is to manage the conflicting demands of both reactively and proactively provided services without hindering business momentum. This continues to be achieved as we deliver substantial changes to the IT infrastructure introducing additional business driven services.

The overall aim of the IT function is to improve efficiency and effectiveness whilst delivering value for money. These aims will be achieved through a risk based approach adopting a process of evolution rather than revolution.

This document

This work plan is underpinned by the [3]HPC Strategic Intent document and the IT strategy and defines the current Information Technology services provided as well as the work priorities and objectives for the financial year 2012-2013. The document provides a basis against which the work of the IT department can be planned and measured.

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[1] The Health professions Order 2001, Article 3(4)
[2] Health Professions Council Strategic Intent – 2009/10 to 2014/15
[3] Health Professions Council Strategic Intent – 2009/10 to 2014/15

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Equality and Diversity Scheme

The Information Technology department does not have any specific action points under the HPC equality and diversity scheme but plays an important role in the delivery of action points in other business areas.

The IT department continues to address specific individual needs as identified by department managers and ensures that technical standards are embedded into projects to address areas of accessibility such as W3C guidelines for web development.

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Resources

Human resources

The Information Technology Department team consists of seven employees.

Guy Gaskins   Director of Information Technology
Greg Legendziewicz   IT Support Analyst
James McMahon   IT Support Analyst
Jason Roth   IT Infrastructure Support Manager
Richard Watling   IT Infrastructure Support Engineer
Rick Welsby   IT Service Support Manager
Ken Yu   IT Infrastructure Support Engineer

Role descriptions

The Director of Information Technology has overall accountability for the IT provision at HPC and sets the IT strategic direction to support the business strategy. The position is responsible for the security and integrity of the IT infrastructure and systems, as well as providing support to and the development of the core applications of the organisation. The role is increasingly important in the definition and delivery of strategic business change projects.

Service Support Team

The IT Service Support Manager has overall responsibility for the Service desk function and manages the IT Service Support Analysts. Additionally, the role is responsible for maintaining and developing our bespoke database applications providing email and specialist application services.

The IT Service Support Analyst role reports to the IT Service Support Manager and has responsibility for the identification and resolution of incidents within the IT infrastructure. The role is the first point of contact between the users and the IT team; they operate the Service Desk function and provide first and second level support for PC and business application services.

Infrastructure Support Team

The IT Infrastructure Support Manager role is primarily responsible for the network and server hardware infrastructure support and development including backup and recovery, availability and capacity management. The infrastructure supports most of the business services delivered by the IT function.

The IT Infrastructure Support Engineer role reports to the IT Infrastructure Manager and supports the network and server hardware infrastructure for both locally and remotely hosted services.

Resource allocation

The IT resource has been allocated against three categories of work: Business As Usual (BAU), Major project delivery and Small project delivery.

BAU effort has been estimated through a process of identifying recurrent tasks and approximating the effort required to fulfil them over a twelve month period. This includes activities such as incident and problem management, third party supplier management, capacity planning, and penetration testing etc.

Major project delivery effort has been estimated using the available high level project information.

Small project delivery effort has been estimated looking at the high level project objectives.

Category	HPC IT FTE
Business-as-usual	3
Major projects	3
Small projects	1

Financial resources

The 2012/2013 work plan assumes an operating budget of £1,236,000 and a capital budget of £191,000. This represents approximately a 17% increase in operating expenditure and a 503% increase in capital expenditure as compared to the 2011/2012 forecast budget.

The increase in operating expenditure predominantly reflects the expected increased running costs with the introduction of the FTP Case Management system and the Semafone PCI DSS compliant credit card payment service, with 3% of the increase attributed to higher support and maintenance costs for an increased head count following the transfer of the Social Worker register to the HPC.

The increase in Capital expenditure is mainly due to the increase in desktop infrastructure following the transfer of the Social Worker register to the HPC and the consequential increase in employee numbers; the remaining value is due to the replacement of a significant proportion of the laptop estate and an increase in storage requirements.

Budget (,000)	2010/2011(actual)	2011/12 (forecast)	2012/13
Operating expenditure (excluding depreciation)	£938	£1,060	£1,236
Capital expenditure	£105	£38	£191

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Achieving the IT Objectives in 2011 - 2012

Progress against the objectives set for 2011 – 2012 can be summarised as:

Information Technology Objective 1:

To drive efficiencies within the organisation by the use of Information Technology and Information Systems, we will:

- Support the FTP Case Management system major project to enhance service and reduce organisational risk within key FTP processes;
    - o To project plan expected go-live date in April 2012.

- Support the Purchase Order System and Sage Upgrade project to leverage new functionality to improve financial controls;
    - o Project postponed following business re-prioritisation.

- Support the Electronic Communications project to investigate and implement email and text communication functionality to support the Registration department processes;
    - o Project postponed following business re-prioritisation.

- Continue to identify opportunities to consolidate infrastructure hardware and software to reduce support overhead and duplicated data silos;
    - o This is an on-going activity; in the last year we have extended the virtualisation of the server infrastructure and have consolidated storage into a central storage array.

- Support the NetRegulate Improvements major project to affect a number of discrete changes within the Registration system to improve function.
    - o There are a number of phased releases for this project that span the 2011 and 2012 fiscal years. The project is operating to plan.

- Review the centrally managed configuration of the desktop infrastructure (Group Policy Objects) with the aim to simplify the design;
    - o Completed successfully.

- Review the management of Log Files and develop an appropriate system of monitoring;
    - o Completed successfully.

- Review the file server synchronisation to our Disaster Recovery (DR) hosted site with the aim of improving the replication latency;
    - o Completed successfully.

- Deliver a development change cycle for the Service Desk system (Livetime);
    - o Project postponed following business re-prioritisation.

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Information Technology Objective 2:

To apply Information Technology within the organisation where it can create business advantage we will:

- Support the FTP Case Management system major project to enhance service and reduce organisational risk within key FTP processes;
  - To project plan expected go-live date in April 2012.

- Support the Education systems and process review project to enhance service and reduce organisational risk;
  - On plan with the first analysis project expected to deliver in September 2012.

- Support the Implementation of the Registration of the Social Workers to the HPC register;
  - On plan for the transfer of regulatory functions on 1 August 2012.

- Implement the Independent Safeguarding Authority major projects for applicants and registrants;
  - This project was transferred to an operational project within FTP and supported by changes to business process.

- Support the expansion and refurbishment of the building space to enable employees to work effectively;
  - Completed successfully with the refitting of 33 Stannary street office space.

- Manage a telephony system development cycle to implement a prioritised list of changes to improve the effectiveness of the system;
  - Completed successfully.

- Support the Partner systems review project to enhance service and reduce organisational risk;
  - This project was postponed as part of project prioritisation.

- Implement the upgrade of the desktop operating system to Windows 7;
  - This project is on plan for completion in May 2012.

- Reduce the number of data and functional silos, consolidating application requirements to support generic business functions across teams and directorates.
  - This is on-going. The delivery of the FTP case management system will reduce the number of data and application silos significantly.

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- Review the current provision of test environments for the core applications and provision additional test environments if necessary.
  - Completed successfully. The number of test environments has been extended to cover our significant systems further environments will be developed as part of key change projects.

- Review the Domain Name System (DNS) which is an internet address reference function and resolve any issues within the HPC
  - Completed successfully.

- Audit, Plan and Prepare for the an upgrade to the server operating environment from Windows server 2003 to Windows server 2008 to retain support;
  - Completed successfully.

- Refresh the technology platforms for NetRegulate. This project will upgrade the various operating platforms of the NetRegulate application to maintain support from the vendors and to address a number of known issues and limitations.
  - Completed successfully.

- Support the delivery of functional changes to the HPC web sites as determined by the Communications department and managed through the Projects team;
  - Completed successfully. A number of changes have been made to the web sites including the updating of the online register.

Information Technology Objective 3:

To protect the data and services of HPC from malicious and unexpected events we will:

- Investigate options to provide a Disaster Recovery solution for the Blackberry mobile personal mailing service;
  - The analysis of the available options has been completed. The implementation project will occur in the 2012 fiscal year.

- Review the options for encrypting the backup for the Network folders and if appropriate implement a relevant strategy;
  - Completed successfully. The tape backups of the Network folders are now encrypted prior to being sent offsite.

- Audit Server configuration and document build specifications were necessary to ensure a secure environment;
  - Completed successfully.

- Conduct quarterly independent penetration tests of our environment to assure adequate security controls;

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o Completed successfully.

- Perform 'white box' penetration testing where security experts are located on the HPC network and attempt to gain unauthorised access to systems;
    o This project has been postponed as part of project reprioritisation.

- Conduct an annual audit of our license compliance by a third party organisation.
    o Completed successfully.

- Review the Backup and Recovery strategy for servers and systems, streamlining and assuring the existing process,
    o Completed successfully.

- Review the Capacity Planning for the Infrastructure, building capacity plans for key systems ensuring availability during operating hours;
    o Completed successfully.

- Review the mechanism by which third party support companies gain secure remote access to only the systems that they support;
    o Completed successfully.

Information Technology Objective 4:
To meet internal organisation expectations for the capability of the IT function we will:

- Refine the processes and develop reporting for the new Service desk tool to support new ITIL processes and the Service desk function;
    o Basic reporting has been enabled with an expectation to develop more reports in the 2012 fiscal year.

- Continue to build the configuration management database to support effective execution of the problem and change management processes;
    o On-going. A significant amount of work has been done to update and maintain the data concerning our licence provision and our hardware infrastructure,

- Develop the Software Catalogue to include server software and define the Definitive Software Library (DSL) where software will be stored;
    o This project has been postponed following project reprioritisation.

- Realign the published service levels to better reflect the organisation need against the service catalogue.
    o This project has been postponed following project reprioritisation.

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Information Technology Activities in 2012 - 2013

The activities of the IT department can be categorised as either:
- Services that support the current operations
- Development that will alter an existing service or introduce a new one.

Services

The IT function provides a number of end-to-end services comprising several technologies and sub-services that are transparent to the Customer or User. The delivery of each service encompasses all of the enabling functions e.g. the delivery of the Registration service also encompasses the availability of the network to connect to the Registration system.

Existing services

1. Application development
   Project management, development and implementation of small scale application development on the Lotus Notes platform.

2. Application support
   Availability, capacity and performance management of the many separate internally developed applications:
      i. Contracts database
      ii. Employee database system
      iii. Freedom of Information system
      iv. HR Starters and Leavers system
      v. Intranet information service
      vi. IT training book library
      vii. Meeting room/ resource database
      viii. Pass list database
      ix. Private Papers Document Store
      x. Partners Database
      xi. Registration - Temporary Registration Database
      xii. Secretariat – Document management system
      xiii. Secure transmission of print files.
      xiv. Suppliers database

3. *Case Management*
   Availability, capacity and performance management of the Fitness to Practice case management system.

4. Customer Relationship Management system (CRM)
   Availability, capacity and performance management of the Customer Relationship Management system iExtensions.

5. Data extraction support
   Limited provision of data extraction from key systems to aid complex requirements for functions (initial support for report generation, statistical

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production and data extraction is within the Operations directorate and the Information Management team).

6. Desktop telephony
   Availability, capacity and performance management of the desktop telephony function including call recording, wall boards and queue management.

7. Education
   Availability, capacity and performance management of the Education database system.

8. Email and web browsing
   Availability, capacity and performance management of the email function and ability for HPC employees to browse the internet.

9. Financial ledger
   Availability, capacity and performance management of the SAGE 200 financial general ledger system.

10. Financial Payroll
    Availability, capacity and performance management of the SAGE 50 payroll system.

11. Financial Purchase Order service
    Availability, capacity and performance management of the PRS Financial purchase order system.

12. Human Resources Information
    Availability, capacity and performance management of the 'HR Info' system for managing the HR requirements HPC.

13. Mobile personal mailing service
    Availability, capacity and performance of the Blackberry function enabling remote and personal diary and mail synchronisation.

14. Online Portal
    Availability, capacity and performance management of the Online Renewals system.

15. Personal computing (including printing and network storage)
    Supply, installation and management of personal computers and all associated software and peripheral devices e.g. scanners.

16. Registration
    Availability, capacity and performance management of the Registration system.

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17. *Secure telephone credit card payment*
    Availability, capacity and performance management of the Semafone service.

18. Service Desk
    Respond to and resolve Incidents, Problems and Requests for Change within the IT infrastructure.

19. Video Conferencing
    Availability, capacity and performance management of the video conference function (excluding the video equipment which is supported by Facilities).

20. Web site hosting (Internet, intranet, extranet)
    Availability, capacity and performance management of the HPC websites both internal and external.

21. Web site
    Availability, capacity and performance management of the Web site (Internet and Extranet) applications. Content and Editorial management resides with the Communications department.

Development

In 2012/2013 the following Major and Small projects will be supported and/or delivered by the IT department. This list is liable to change following decisions of Council in response to changes in the external environment.

Major Projects

- MP46 - Education systems and process review
  To review the systems and processes of the Education department and if appropriate define new processes and identify a technology solution to support the department.

- MP52 - On Boarding of Social Workers
  To transfer the existing statutory register for Social Workers from the GSCC to the HPC

- MP54 - New name project
  Changing references to HPC to the new name of the Health and Care Professions Council following the transfer of the social workers register.

- MP56 - Information security
  Produce a gap analysis between the current state of the information security as compared against the ISO27001 standard

- MP58 - Online renewal form request
  Develop web functionality that will enable registrants in renewals to request a paper renewal form without the requirement to telephone the Registrations team.

- MP## - Expansion and Refurbishment of Building Space
  With a phased approach to refurbish new additional office space to enable employees to work effectively.

- MP## – HR & Partner Systems and Process review
  To review the systems and processes of the HR & Partners department and if appropriate define new processes and identify a technology solution to support the functions.

- MP## - Automated Readmissions
  Develop technology and process changes to allow readmission forms to be processed automatically though a scanning solution.

- MP## - Fitness to Practice Case Management System Changes
  To implement a series of small functional improvements to the Case management system as a package of changes.

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- MP## - Traditional Chinese medicine and Herbal medicine
  To support the analysis and definition phase of the project in preparation of the start of regulatory services.

- MP## - Web site development
  To implement a series of small functional improvements to the Corporate web site as a package of changes.

- MP## - NetRegulate System Improvements
  Implement a series of small functional improvements to the NetRegulate Registration system as a package of changes.

Small Projects
- DP1 – NetRegulate operating system upgrade
  To upgrade the base operating system to a new major version and to apply a number of key feature enhancements to improve availability.

- DP2 – Telephony system development cycle
  This project will manage two controlled releases of changes to the HPC telephone system to reflect developments requested by the business teams.

- DP 3 – Blackberry server disaster recovery service
  The Mobile Personal Mailing service has now become a business critical service. This project will implement a disaster recovery service as reviewed in 2011-2012. This will allow the Blackberry handsets to operate in the event of a critical infrastructure failure.

- DP 4 – Upgrade of supporting systems
  This project will upgrade a number of supporting systems that provide functions such as backup and encryption to maintain support and address known issues.

- DP5 – Upgrade server operating systems
  This project will manage the upgrade of existing windows servers from their current version to windows 2008 R2 in order to maintain support and implement new features.

- DP6 – Increase storage capacity
  This project will increase the physical capacity of the storage area network (SAN) and reconfigure the hardware to make best use of the increased capacity.

- DP7 – Mail service upgrade
  This project will upgrade the Lotus Notes mail system to the latest version. This will enable a number of new features that are required for the HPC intranet service.

- DP8 – Document control
  Support the Business Process Improvement team in the delivery of a document

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control mechanism for Microsoft personal performance software e.g. Word. This will enforce the categorisation of documents when created or amended as part of ISO9001 compliance

- DP9 – Facilities service desk
This project will provide a new internal online service desk function for logging Facilities incidents and change requests. This service will be separate to the IT ticketing system but will utilise the same software.

Achieving the IT Objectives in 2012 - 2013

There are a number of objectives that the Information Technology department will need to achieve in 2012 - 2013.

Information Technology Objective 1:

To drive efficiencies within the organisation by the use of Information Technology and Information Systems, we will:

- Support the FTP Case Management system major project to enhance service and reduce organisational risk within key FTP processes;
- Support the Education systems and process review project to enhance service and reduce organisational risk;
- Support the HR & Partner process and systems review project to enhance service and reduce organisational risk;
- Support the Fitness to Practice case management system changes project to implement a series of small functional improvements as a package of changes;
- Support the project to automate readmissions allowing readmission forms to be processed automatically through a scanning solution;
- Support the online renewal form request project to produce web functionality to enable renewal forms to be requested without the need to telephone the Registrations team;
- Continue to identify opportunities to consolidate infrastructure hardware and software to reduce support overhead and duplicated data silos;
- Support the NetRegulate Improvements major project to affect a number of discrete changes within the Registration system to improve function; and
- Deliver a development change cycle for the Service Desk system (Livetime) to extend the function to the Facilities function.

Timescale March 2013

Information Technology Objective 2:

To apply Information Technology within the organisation where it can create business advantage we will:

- Support the FTP Case Management system major project to enhance service and reduce organisational risk within key FTP processes;
- Support the Education systems and process review project to enhance service and reduce organisational risk;
- Support the project to transfer the register of social workers to the HPC;
- Support the new name project to change references to the HPC to the new name following the transfer of the social workers register;
- Support the analysis and definition phase of the Traditional Chinese and Herbal medicine project in the preparation for the start of regulatory services;
- Implement upgrades to a number of supporting systems that provide functions such as backup and encryption to maintain support and address known issues;
- Support the expansion and refurbishment of the building space to enable employees to work effectively;
- Manage a telephony system development cycle to implement a prioritised list of changes to improve the effectiveness of the system;
- Reduce the number of data and functional silos, consolidating application requirements to support generic business functions across teams and directorates;
- Implement an upgrade to the server operating environment from Windows server 2003 to Windows server 2008 to retain support;
- Implement an enhancement to the storage area network to increase the capacity of the centralised storage for the IT infrastructure;
- Implement an upgrade to the Lotus Notes mail system to enable a number of new features that are required for the HPC intranet service; and
- Support the delivery of functional changes to the HPC web sites as determined by the Communications department and managed through the Projects team.

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Information Technology Objective 3:

To protect the data and services of HPC from malicious and unexpected events we will:

- Implement an upgrade to the operating system of the NetRegulate system to take advantage of key feature enhancements to improve availability;
- Implement a Disaster Recovery solution for the Blackberry mobile personal mailing service as determined in 2011-2012;
- Conduct quarterly independent penetration tests of our environment to assure adequate security controls;
- Support the Business Process Improvement team in the production of a Gap analysis between the current state of information security as compared against the ISO27001 standard;

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- Support the Business Process Improvement team in the delivery of a document control mechanism for the Microsoft personal performance software;
- Review and if necessary re-issue the corporate IT policy to take into account changes in the way HPC utilises internal and external information systems to perform its functions;
- Conduct an annual audit of our license compliance by a third party organisation; and
- Review the Capacity Planning for the Infrastructure, building capacity plans for key systems ensuring availability during operating hours.

Timescale March 2013

Information Technology Objective 4:

To meet internal organisation expectations for the capability of the IT function we will:

- Refine the processes and develop reporting for the new Service desk tool to support new ITIL processes and the Service desk function;
- Continue to build the configuration management database to support effective execution of the problem and change management processes;
- Develop the Software Catalogue to include server software and define the Definitive Software Library (DSL) where software will be stored;
- Realign the published service levels to better reflect the organisation need against the service catalogue; and

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Information Technology activities for 2013 - 2014

We plan to implement best practice as we continue to develop our infrastructure to gain effectiveness whilst improving value for money by:

- Continuing to improve our processes and procedures;
- Investigate alternative methods for delivering the corporate desktop to reduce the reliance on physical personal computers;
- Develop and improve our IT systems resilience; and

We will also support the Major projects which are expected to include:

- Implementation of the outcome of the HR and Partners process and system review project;
- Implementing the outcome of the Education process and system review;
- Opening a register for traditional Chinese and herbal medicine practitioners;
- Online Renewals Project phase 2;
- Supporting a project to prepare for the regulation of non-medical public health specialists;
- Review and implement a redevelopment of the HPC web services including the corporate web site;
- Supporting any development of voluntary registers following decisions by Council; and
- Review for the next 4th generation Registration system.

We will also deliver the agreed Small project list to support the achievement of the directorate work plans.

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Risk Management

The Information Technology department manages those organisation risks that are primarily concerned with:

- Information security - the authentication and authorisation of individuals to gain access to defined services and data;
- Information Technology Continuity – the ability to recover from a disaster scenario;
- Perimeter protection – the ability to manage the threat of external intrusion through hacking and virus propagation;
- Obsolescence – management of the supportability and maintainability of the IT infrastructure.

Please see the appendix A for details.

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Glossary

BAU……………………………	Business As Usual
Blackberry……………………..	Remote mobile diary and calendar management technology
CAPEX………………………...	Capital expenditure
CRM……………………………	Customer Relationship Management
Crystal Reports……………….	Report writing software package
Customer………………………	Individuals who purchase or commissions an IT service
FTE……………………………..	Full Time Equivalent
FTP……………………………..	Fitness To Practice
HR Info………………………....	Software package that provides Human Resources management functionality
ISP……………………………..	Internet Service Provider
IT……………………………….	Information Technology
ISA……………………………..	Independent Safeguarding Authority
LAN……………………………	Local Area Network
Lotus Notes…………………...	Software package that provides application and mail functionality
MS-Word……………………….	Microsoft Word
OPEX………………………….	Operating expenditure
PC……………………………....	Personal Computer
PCI DSS……………………….	Payment Card Industry Data Security Standard
SMS……………………………	Short Message Service
User……………………………	Individuals who use an IT service

Appendix A: Risks Managed by the Information Technology department

Category	Ref #	Description	Risk owner (primary person responsible for assessing and managing the ongoing risk)	Impact before mitigations February 2010	Likelihood before mitigations February 2010	Risk Score = Impact x Likelihood	Mitigation I	Mitigation II	Mitigation III	RISK score after Mitigation February 2010	RISK score after Mitigation September 2009
Operations	2.10	Telephone system failure causing protracted service outage	Director of IT	4	3	12	Support and maintenance contract for hardware and software of the ACD and PABX	Backup of the configuration for both the ACD and PABX	Diverse routing for the physical telephone lines from the two exchanges with different media types	Low	Low
IT	5.1	Software Virus damage	Director of IT	4	5	20	Anti-virus software deployed at several key points. Perimeter controls enabled.	Adherence to IT policy, procedures and training	Regular externally run security tests	Low	Low
		Links to 2.3, 10.2									
	5.2	Technology obsolescence, (Hardware or Software)	Director of IT	2	2	4	Delivery of the IT strategy including the refresh of technology	Employ mainstream technology with recognised support and maintenance agreements	Accurately record technology assets.	Low	Low
		Links to 2.6, 10.2									
	5.3	IT fraud or error	Director of IT	3	3	9	Adequate access control procedures maintained. System audit trails.	Regular, enforced strong password changes.	Regular externally run security tests	Low	Low

	5.4	Failure of IT Continuity Provision	Director of IT	4	3	12	Annual IT continuity tests	IT continuity plan is reviewed when a service changes or a new service is added	Appropriate and proportionate technical solutions are employed. IT technical staff appropriately trained.		Low	Low
	5.5	Malicious damage from unauthorised access	Director of IT	4	2	8	Security is designed into the IT architecture, using external expert consultancy	Regular externally run security penetration tests	Periodic and systematic proactive security reviews of the infrastructure. Application of security patches in a timely manner. Physical access to the IT infrastructure restricted and controlled.		Low	Low
Education	7.5	Education database failure	Director of IT	3	2	6	Effective backup and recovery processes	In house skills to support system	DR/BC tests		Low	Low
Registration	10.2	Protracted service outage following a NetRegulate Registration system failure	Director of IT	5	3	15	Effective backup and recovery procedures	Maintenance and support contracts for core system elements	Annual IT Continuity tests		Low	Low
HR	11.1	Loss of key HPC employees (person cover risk)	President, Chief Executive and EMT	4	4	16	Chief Executive succession plan held by HR Director. Succession planning generally	Departmental cross training (partial or full) and process documentation			Low	Low

Policy and Standards / Finance											
	11.6	High sick leave levels	EMT	2	3	6	Adequate staff (volume and type) including hiring temporary staff	Return to work interviews and sick leave monitoring	Regular progress reviews	Low	Low
Policy and Standards	14.4	Inadequate preparation for a change in legislation (Health Professions Order, or other legislation affecting HPC)	EMT	3	1	3	EMT responsible for remaining up to date relationships with governemnt depts and agencies	HPC's 5 year planning process	Legal advice sought	Low	Low
Finance	15.2	Unexpected rise in operating expenses	EMT	3	1	3	Budget holder accountability for setting budgets and managing them. Timely monthly reporting and regular budget holder reviews held. Finance & Resources Committee review of the monthly variances, year to date accountability.	Six and nine month reforecasts with spending plan revisions as feasible and appropriate.	Legal cost insurance for FTP cases. Capped FTP legal case costs.	Low	Low
	15.3	Major Project Cost Over-runs	EMT	4	2	8	Effective project specification including creating decision points. Effective project management and timely project progress reporting (financial and non financial).	Creation of a project capex contingency budget. Project exception reports including revised funding proposal is presented to EMT for approval.	Finance & Resources Committee review of the project spendng variances to date	Low	Low

Data Security	17.1	Electronic data is removed inappropriately by an employee	Director of IT	5	3	15	Employment contract includes Data Protection Agreement	Adequate access control procedures maintained. System audit trails.	Laptop encryption. Remote access to our infrastructure using a VPN . Documented file encryption procedure	Low	Low
	17.3	Loss of electronic data held by third party suppliers in the delivery of their services (general risk)	Director of IT and Director of Operations	5	3	15	Access is restricted to only the data that is necessary for the performance of the services.	Effective system processes including secure data transfer and remote access granted only on application and through secure methods. Physical transfer of back up tapes using a specialist company with locked boxes and sign out procedure.	Data Processor agreements signed by the relevant suppliers.	Low	Low

| | 17.6 | Loss of Registrant personal data by the registration system (NetRegulate) application support provider in the performance of their support services (specific risk). | Director of IT and Director of Operations | 5 | 3 | 15 | Access to and export of Registrant data is restricted to only that which is necessary for the performance of the services. | Effective system processes including secure data transfer and remote access granted only on application and through secure methods. | Data processor side letter specifying obligations and granting a limited indemnity. | Low | Low |