

Finance and Resources Committee 17 March 2011

Information Technology Work Plan 2011/2012

Executive summary and recommendations

Introduction

This paper sets out the Information Technology Department's work plan for the financial year 2011 - 2012.

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 2011 - 2012

Financial implications

The attached paper's assumptions are all accounted for in the current version of the HPC budget for 2011 - 2012

Appendices

None

Date of paper

5 March 2011

Information Technology Work plan 2011 – 2012

Contents

Glossary.....	2
Introduction	2
This document	3
Equality and Diversity Scheme	3
Resources.....	4
Human resources	4
Financial resources.....	5
Achieving the IT Objectives in 2010 - 2011.....	6
Information Technology Objective 1:	6
Information Technology Objective 2:	7
Information Technology Objective 3:	8
Information Technology Objective 4:	9
Information Technology Activities in 2011 - 2012	9
Services.....	9
Existing services	9
Expected New Services for 2011/2012	11
Development.....	11
Major Projects	12
Small Projects	12
Achieving the IT Objectives in 2011 - 2012.....	13
Information Technology Objective 1:	13
Information Technology Objective 2:	14
Information Technology Objective 3:	14
Information Technology Objective 4:	15
Information Technology activities for 2012 - 2013	16
Risk Management.....	17
Appendix: Risks Managed by the Information Technology department.....	18

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

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

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

¹ The Health professions Order 2001

² Health Professions Council Strategic Intent – 2009/10 to 2014/15

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

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 ³HPC 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 2011-2012. The document provides a basis against which the work of the IT department can be planned and measured.

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.

³ Health Professions Council Strategic Intent – 2009/10 to 2014/15
3 of 21

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

Resources

Human resources

Following a reorganisation of the Information Technology Department the team consists of six employees.

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

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

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

Resource allocation

For the 2011/2012 financial year 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	2
Small projects	1

Financial resources

The 2011/2012 work plan assumes an operating budget of £1,193,000 and a capital budget of £30,000. This represents approximately a 14% increase in operating expenditure and a 79% reduction in capital expenditure as compared to the 2010/2011 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 (£109,000) and the increase in the VAT rate.

Budget (,000)	2009/2010 (actual)	2010/2011	2011/12
Operating expenditure (excluding depreciation)	£ 861 (£944)	£1,042	£1,193
Capital expenditure	£64 (£76)	£141	£30

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	---------------	----------------	-------------------	------------	---	-----

Achieving the IT Objectives in 2010 - 2011

Progress against the objectives set for 2010 – 2011 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:

- Continue to identify opportunities to consolidate infrastructure hardware and software to reduce support overhead and duplicated data silos;
 - Ongoing; significant consolidation has occurred following the strategy to virtualise the server infrastructure. Two thirds of the server environment is now operated through virtualisation.
- Upgrade our existing Microsoft SQL Server databases to a new version to retain support and improve IT continuity provision;
 - Complete; all internal applications that can operate on the new platform have been migrated successfully. There is only one legacy reporting system that remains using the older platform.
- Support the registrant publication preferences project to improve the method by which HPC support alternative printing formats for individual registrants e.g. Braille;
 - This is part of the NetRegulate major project delivery and is currently on target for release in March 2011.
- Implement an upgrade to the Scanning solution of the Registration system to apply software fixes to a number of known errors;
 - Completed successfully.
- Implement a controlled virtual infrastructure to reduce the proliferation of physical servers and reduce the incidents of application conflicts;
 - Completed successfully.
- Support the implementation of small changes to the Sage 200 Financial general ledger system to improve departmental efficiencies; and
 - Completed successfully.
- Support the NetRegulate Improvements major project to affect a number of discrete changes within the Registration system to improve function.
 - Completed successfully.

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

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;
 - Delivering to plan for 2010-2011.
- Support the Education systems and process review project to enhance service and reduce organisational risk;
 - Project postponed following business re-prioritisation .
- Implement the Registration of the Hearing Aid dispensers to the HPC register;
 - Completed successfully.
- Implement the Independent Safeguarding Authority major projects for applicants and registrants;
 - Project postponed following the government review.
- Extend the HPC network to the Evangelical Alliance building to enable employees to work effectively;
 - Project closed following a change in use of the Evangelical Alliance rooms.
- Support the Fees 2011 Major project for changes to the HPC renewal fees;
 - Project closed following decision not to raise fees.
- Manage a telephony system development cycle to implement a prioritised list of changes to improve the effectiveness of the system;
 - Completed successfully.
- Implement an upgrade to the Mobile Personal Mailing Service (Blackberry) to improve maintainability and security;
 - Completed successfully.
- Support the linking of the register to electronic staff records (ESR) at the NHS (England and Wales);
 - Project postponed following business re-prioritisation.
- Replace the Mitel 3300 telephony controller to retain support and apply new telephone functionality;
 - Completed successfully.
- Manage the application of a prioritised list of small changes to the Education, Approvals and Monitoring system;
 - Project expected to be delivered by the end of the fiscal year.

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	---------------	----------------	-------------------	------------	---	-----

- Support the Partner systems review project to enhance service and reduce organisational risk;
 - Project postponed following business re-prioritisation
- Prepare for the upgrade of the desktop operating system by auditing and replacing applications that are not certified with Windows 7;
 - Project on plan for completion by the end of the fiscal year.
- Implement the Minitab business intelligence tool to support the Operations team provide higher quality statistical information;
 - Completed successfully.
- Support the Operations team to deliver changes to the intranet to improve the ISO 9001 system and customer services tracking system; and
 - Completed successfully.
- Reduce the number of data and functional silos, consolidating application requirements to support generic business functions across teams and directorates.
 - Ongoing. The FTP major project supports this aim.

Information Technology Objective 3:

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

- Support the project to outsource credit card handling to reduce organisation risk of fraud;
 - This project is on plan for delivery by the end of the fiscal year.
- Review the options for encrypting the backup for the NetRegulate application and if appropriate implement a relevant strategy;
 - Completed successfully.
- Review and implement a two factor security mechanism for remote access to the HPC information technology services;
 - This project is on plan for delivery by the end of the fiscal year.
- Conduct quarterly independent penetration tests of our environment to assure adequate security controls; and
 - Completed successfully.
- Conduct an annual audit of our license compliance by a third party organisation.
 - Completed successfully.

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

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;
 - Completed successfully.
- Continue to build the configuration management database to support effective execution of the problem and change management processes;
 - Ongoing. This is significantly improved following the introduction of the new service desk system.
- Realign the published service levels to better reflect the organisation need against the service catalogue; and
 - Not completed. This action is dependent upon gathering meaningful statistics from the service desk system. Unfortunately, the new system has not been in operation for a long enough period to determine achievable service levels.
- Refine the availability management processes supporting the IT infrastructure.
 - Completed successfully. The introduction of an internal monitoring system has improved the ability to predict outages and capacity issues.

Information Technology Activities in 2011 - 2012

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:

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

- i. Contracts database
 - ii. Employee database system
 - iii. Freedom of Information system
 - iv. Fitness to Practice system
 - v. HR Starters and Leavers system
 - vi. Intranet information service
 - vii. IT training book library
 - viii. Meeting room/ resource database
 - ix. Pass list database
 - x. Private Papers Document Store
 - xi. Partners Database
 - xii. Registration - Temporary Registration Database
 - xiii. Secretariat – Document management system
 - xiv. Secure transmission of print files.
 - xv. Suppliers database
3. Customer Relationship Management system (CRM)
Availability, capacity and performance management of the Customer Relationship Management system iExtensions.
 4. Data extraction support
Limited provision of data extraction from key systems to aid complex requirements for functions (initial support for report generation, statistical production and data extraction is within the Operations directorate and the Information Management team).
 5. Desktop telephony
Availability, capacity and performance management of the desktop telephony function including call recording, wall boards and queue management.
 6. Education
Availability, capacity and performance management of the Education database system.
 7. Email and web browsing
Availability, capacity and performance management of the email function and ability for HPC employees to browse the internet.
 8. Financial ledger
Availability, capacity and performance management of the SAGE 200 financial general ledger system.
 9. Financial Payroll
Availability, capacity and performance management of the SAGE 50 payroll system.
 10. Financial Purchase Order service
Availability, capacity and performance management of the PRS Financial

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

purchase order system.

11. Human Resources Information
Availability, capacity and performance management of the 'HR Info' system for managing the HR requirements HPC.
12. Mobile personal mailing service
Availability, capacity and performance of the Blackberry function enabling remote and personal diary and mail synchronisation.
13. Online Portal
Availability, capacity and performance management of the Online Renewals system.
14. Personal computing (including printing and network storage)
Supply, installation and management of personal computers and all associated software and peripheral devices e.g. scanners.
15. Registration
Availability, capacity and performance management of the Registration system.
16. Service Desk
Respond to and resolve Incidents, Problems and Requests for Change within the IT infrastructure.
17. Video Conferencing
Availability, capacity and performance management of the video conference function (excluding the video equipment which is supported by Facilities).
18. Web site hosting (Internet, intranet, extranet)
Availability, capacity and performance management of the HPC websites both internal and external.
19. Web site
Availability, capacity and performance management of the Web site (Internet and Extranet) applications. Content and Editorial management resides with the Communications department

Expected New Services for 2011/2012

1. *Fitness to Practice system.*
2. *Semafone PCI DSS credit card payment service.*

Development

In 2011/2012 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

11 of 21

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

response to the Health and Social Care Bill 2010-11 and the government ⁴Command Paper of 16 February 2011.

Major Projects

- MP52 - On Boarding of Social Workers
To transfer the existing statutory register for Social Workers from the GSCC to the HPC
- MP51 - Expansion and Refurbishment of Building Space
With a phased approach to refurbish new additional office space to enable employees to work effectively.
- MP36 - FTP Case Management system
To implement the Case and Hearings management system for the FTP department.
- MP## - Purchase Order Payment System Upgrade and Sage 200 Upgrade
To upgrade the two core financial applications to leverage improved functionality that will improve financial controls.
- 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.
- MP## - Electronic Communications
To investigate and if appropriate implement functionality to allow the emailing and SMS texting of registrants to support the Registration and Renewal processes.
- MP47 - Partner Systems review
To review the systems and processes of the Partners department and if appropriate define new processes and identify a technology solution to support the department.
- MP## - NetRegulate System Improvements
Implement a series of small functional improvements to the NetRegulate Registration system as a package of changes. This will include the upgrade of the base software to maintain support with the technology vendors.

Small Projects

- DP1 – Windows 7 upgrade
All PCs will be upgraded to the new Microsoft operating system in order to maintain a supported platform and benefit from improvements in stability, performance and functionality.

⁴ Enabling Excellence: Autonomy and Accountability for Health and Social Care Staff

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

- 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 investigate the options for creating a disaster recovery service and if appropriate to implement the service. This will allow the Blackberry handsets to operate in the event of a critical infrastructure failure.
- DP 4 – Education system small changes
This project will deliver a number of small changes to the existing Education system to support changes in business needs.

Achieving the IT Objectives in 2011 - 2012

There are a number of objectives that the Information Technology department will need to achieve in 2011/2012.

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 Purchase Order System and Sage Upgrade project to leverage new functionality to improve financial controls;
- Support the Electronic Communications project to investigate and implement email and text communication functionality to support the Registration department processes;
- 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.
- Review the centrally managed configuration of the desktop infrastructure (Group Policy Objects) with the aim to simplify the design;
- Review the management of Log Files and develop an appropriate system of monitoring;
- Review the file server synchronisation to our Disaster Recovery (DR) hosted site with the aim of improving the replication latency;
- Deliver a development change cycle for the Service Desk system (Livetime);

Timescale March 2012

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

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 Implementation of the Registration of the Social Workers to the HPC register;
- Implement the Independent Safeguarding Authority major projects for applicants and registrants;
- 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;
- Support the Partner systems review project to enhance service and reduce organisational risk;
- Implement the upgrade of the desktop operating system to Windows 7;
- Reduce the number of data and functional silos, consolidating application requirements to support generic business functions across teams and directorates.
- Review the current provision of test environments for the core applications and provision additional test environments if necessary.
- Review the Domain Name System (DNS) which is an internet address reference function and resolve any issues within the HPC
- Audit, Plan and Prepare for the an upgrade to the server operating environment from Windows server 2003 to Windows server 2008 to retain support;
- Support the delivery of functional changes to the HPC web sites as determined by the Communications department and managed through the Projects team;

Timescale March 2012

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;
- Review the options for encrypting the backup for the Network folders and if appropriate implement a relevant strategy;
- Audit Server configuration and document build specifications were necessary to ensure a secure environment;

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

- Conduct quarterly independent penetration tests of our environment to assure adequate security controls;
- Perform 'white box' penetration testing where security experts are located on the HPC network and attempt to gain unauthorised access to systems;
- Conduct an annual audit of our license compliance by a third party organisation.
- Review the Backup and Recovery strategy for servers and systems, streamlining and assuring the existing process,
- Review the Capacity Planning for the Infrastructure, building capacity plans for key systems ensuring availability during operating hours;
- Review the mechanism by which third party support companies gain secure remote access to only the systems that they support;

Timescale March 2012

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

Timescale March 2012

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

Information Technology activities for 2012 - 2013

We plan to implement best practice and further develop our infrastructure to gain efficiencies whilst improving value for money by:

- Continuing to improve our processes and procedures;
- Develop and improve our IT systems resilience; and
- Review the IT policy.

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

- HR and Finance systems consolidation review;
- Implementing the outcome of the Education system review;
- Implementing the outcome of the Partner system review;
- Opening a register for herbal medicine practitioners;
- Online Renewals Project phase 2;
- Responding to the government command paper – Enabling Excellence: Autonomy and Accountability for Health and Social Care Staff;
- Review for the next 4th generation Registration system;
- Supporting any development of voluntary registers following decisions by Council; and
- Telephony system review.

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

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

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 below for details.

	2009 workplan	Final DD: None	Internal RD: None	08/03/2011	a	ITD
--	------------------	-------------------	----------------------	------------	---	-----

Appendix: 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

	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 government 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 spending 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	Director of IT	5	3	15	Data Protection/Controller agreements signed by the relevant suppliers. Use of electronic firewalls by suppliers.	Data transfer using file level encryption. Physical transfer of backup tapes using specialist company with locked boxes and sign out procedure.	Remote access to our infrastructure using a VPN. Access to third party infrastructure using agreed secure methods.	Low	Low