

Annual Report 2007/08

Service Plan 2008/09

12/8/2008

Information Systems Services

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Director IS Services (Acting)

Introduction

Information System Services (IS Services) are the central Information Technology service provider for College supporting 25,000 users across the main campus and 18 off campus locations. IS Services are housed in two buildings in College, the Support Service is delivered from the ground floor of Aras an Phiarsaigh and the main data centre and the remainder of IS Services are located in 200 Pearse St. IS Services also has staff in the two main teaching hospitals at St James's and the AMNCH at Tallaght.

The department has three main management streams, **Support Services** which has responsibility for User Support, Training, support for teaching and learning facilities, student computing and Photography.

The **Computer Systems group** has responsibility for the main College servers, the College network and Infrastructure and deliver many services such as email and web to the College community. The group is also responsible for the College network which now supports links to many off-campus locations and College's main Internet connectivity. The group manage the main data centre in College which houses over 150 servers which provide a number of services to the College community. The College network has over 100 communications rooms across 19 locations and there are 12,000 active network points and 650 wireless access points providing a wireless network service to nearly 5,000 users.

The **Management Information Systems** group has responsibility for database management and administration, application acquisition and administration and application development & maintenance. Each of the aforementioned groups is managed by a senior manager. However, some of these positions were vacant during 2007/08 due to the interim arrangements put in place following the retirement of the Director.

IS Services also has a responsibility for ensuring Disaster Recovery and Business Continuity and has a role to play in IT and data security. IS Services work closely with the College IT Security Officer, the College Auditor and External Auditors to ensure compliance. Although IS Services are responsible for the central provision of IT, there are a number of departments that have IT staff or internal IT departments. IS Services staff liaise closely with these areas and support staff in the faculties to ensure the overall smooth operation of the IT infrastructure.

At a strategic level, IS Services senior management contribute to the e-Strategy program and advise various departments, faculty and Schools on IT requirements and ensure that IS Services strategy is aligned with the College's goals and objectives. The department is involved in the following committees (a) The Information Policy committee (b) Library and IS Services User committee (c) The Web Management committee.

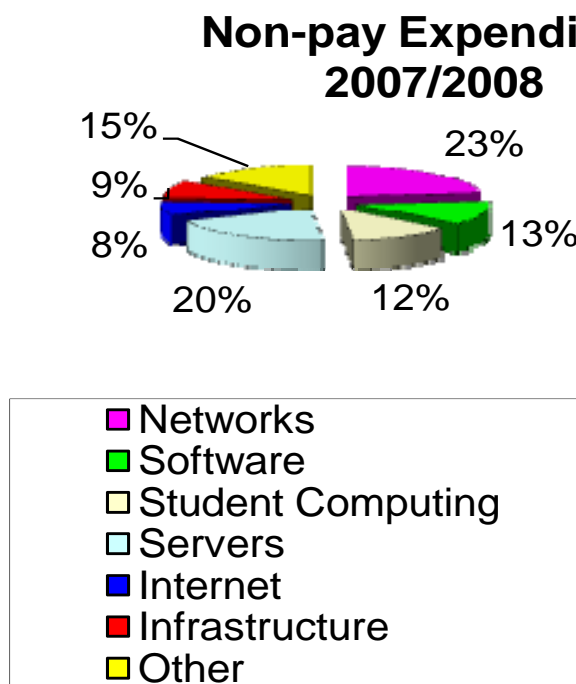
At an operational level, the department deploys a Customer Relationship Management (CRM) tool which logs and tracks all interactions with end users and supplies valuable information on the performance of the department. The department uses Key Performance Indicators and formal Project Management techniques to manage its work program. In the past year a framework called ITIL has been adopted to ensure "best practice" approach to IT Service management and Service delivery. It has been used to re-organise the User Support group and many aspects of this framework will be adopted across the department in the coming year.

A departmental organogram is included as **Appendix A**.

Budget

The department has an annual budget of €8 million of which €3 million is for non-pay and €5 million is for pay. The Director of IS Services, Mr. Michael Nowlan retired in Dec 2007 and an interim senior management team was put in place.

The following is a breakdown of where the non-pay budget was spent in 2007/08



Review of the year – key achievements

Strategic Developments

The interim senior management team started to address the need to restructure the department in order to support the new academic structures. PA Consulting was appointed in March 2008 to consult with key stakeholders on the restructuring of IS Services and the possible integration of IS Services with The Centre for High Performance Computing. The report was published in December 2008 and will be brought to Executive Officers in February 2009. Worked commenced on the identification of all major IT projects requests and the prioritisation of these requests. These projects varied in complexity and cost and the full list of same are now published on the IS Services website. The program contains developments for 2009 and support some of the main College strategic themes in Information Management, IT Architecture, Teaching and Learning technology, Student mobility, Research infrastructure and enhancing the College's web presence. Over 150 projects have been identified some of a critical nature and these will be prioritised by the newly formed e-Strategy group.

During 2008, senior management commenced the development of the next IT Strategy and started engagement with key stakeholders. The engagement will continue in 2009 and the information gathered will be used to formulate the IT Strategic plan that will support the College's e-Strategy program and the College's Strategic plan. It will also inform decision-making on the work plan for 2009/10.

IS Services started a strategic initiative with the Director of Buildings Office to map out a future for Unified Communications in College. Unified Communications has the ability to bring multiple technologies onto one infrastructure greatly enhancing user experience, reducing costs and improving productivity.

IT Performance

IS Services management monitors IT performance and service availability. There were substantial improvements in performance over the previous year. IS Services measures the performance of the following critical services and their availability. These measures are for five day (Mon-Fri) periods and do not include maintenance or scheduled upgrade outages.

Service	Availability
Internet	100%
Staff email	100%
Student email	99.5%
Staff and Student storage facilities	100%
Student printing	98.5%
Off-campus network connectivity	100%
Virus and SPAM protection	99%
Admin Systems (further breakdown available)	98.3%

Support Services Achievements

USG & Helpdesk Team restructuring

In line with ITIL best practice a new incident management structure was put in place at the Helpdesk.

The adoption of the ITIL best practice framework required the relocation of User Support staff from 200 Pearse St to Aras an Phiarsaigh. This greatly aides in communication and problem solving within the User Support team and greatly enhances the end-user experience, This structure also considerably improved access to the telephone service for users phoning the Helpdesk. The User Support staff dealt with the following number of requests during 2007/08.

Help Desk Statistics

Phone Calls Answered	18497
Emails Processed	12546
Front Desk Callers	15197
New Network Connection Requests	1733 (Staff and Office New Network Connections)

Student Network connections	4200
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All helpdesk statistics are now updated weekly on the IS Services web site and any staff or student can track their request to see how it is progressing.

Wireless Service added to Network Access Control (NAC) system

From October 2007 the self service network system was improved to include wireless access for students. This development meant that students could now connect to the wireless network without the intervention of IS Services staff. All open access areas in College are now available via wireless which greatly enhances the student experience and also supports the mobility theme outlined in the College's Strategic plan.

Previously the system was only accessible from wired Student Residences and specific wired NW points in the Libraries.

Software Support

In line with developments in the commercial world IS Services support staff were fully trained to offer support for the new Microsoft Operating System (Vista) and the new Microsoft Office 2007 which now come pre-installed on many College PC's and Laptops. Apple also released a new operating system (Leopard) and support staff is now fully trained to support this development.

Anti Virus & Anti Spyware

The success of implementing virus control tools meant there were no major virus outbreaks in academic year 07/08.

Training

Following a very significant increase in its training schedule in 2006-7, the Training and Publications group increased the number of IT training sessions made available to College staff and postgraduate students in 2007-8 by a further 5% to 197. 1,180 staff and postgraduate students attended courses that formed part of the department's published training schedule. A further 404 attended courses that were specifically requested by College course coordinators, schools and departments. Use of the department's training room exceeded 85% capacity during term time in 2007-8.

Much of the continuing development of training courses in 2007-8 focused on meeting the skills needs of postgraduate students. Staff from the Training and Publications participated in the annual TCD Postgraduate Skills Summer School which was held on June 16-17, 2008.

Training sessions were conducted in Effective Presentations using PowerPoint, Planning Thesis Production Using MS Word. Courses were also provided for M.Litt students in the School of History and Humanities as part of their generic skills module.

The Training and Publications team continues to work closely with the Trinity Access Programme in ensuring their students are equipped with the necessary IT skills.

Audio Visual and Photography

As part of our continuing commitment to support Teaching and Learning 23 seminar rooms had AV equipment upgrades. Of these 19 were in the Arts Building, 3 were in the museum building and one was in Goldsmith Hall. These upgrades included the installation of new controllers, lecterns and PC's and the provision of additional network points to facilitate the networking of AV equipment.

Four lecture Theatres, three in the Museum and one in the Hamilton also had AV equipment upgrades. This included the provision of new lecterns, PC, DVD/VCR and room controller. Also included was the provision of additional network points to facilitate the networking of the equipment.

Induction loops were fitted in Burke, MacNeill and Emmet Lecture Theatres to facilitate users of hearing aids.

The Photographic Centre continued to provide a comprehensive photographic service to all Trinity College members of staff, producing visual photographic material to illustrate and enhance teaching, research and publication work, together with photographic illustrations for brochures, College exhibitions and web pages. Two high profile projects were also completed.

Modern Art Collection

The Photographing of the Colleges modern art collection at the request of the new college art curator was completed.

Computer Systems group achievements

Growth in passive network infrastructure.

A total of 71 projects were undertaken to provide an additional 746 dual network outlets to the College network. Of these, 16 were projects in support of Director of Buildings projects providing 129 additional dual outlets and 55 were commissioned by IS Services on behalf of IS Services and College departments providing an additional 617 dual outlets.

The total spend excluding Director Of Buildings projects was € 121,330.00, down from €193,000 in 2006-7. The average cost of a dual outlet in 2007-8 was €196 which was a significant on €335 in 2006-7

Wireless network growth

The number of College wireless users increased from 2150 in 2006-7 to 3750 in 2007-8 a 75% growth. An additional 980 guest users availed of the commercial quality guest wireless service. The table below shows comparative growth from the introduction of the service.

Wireless network			
Year	User numbers	Growth	Access Points
2003/4	200		145
2004/5	750	275%	290
2005/6	1500	100%	469
2006/7	2150	43%	607
2007/8	3750	75%	650

Network Admission Control (self service) access to College network

Following on from the success of the introduction of the first large scale NAC deployment in Ireland in 2005/6, the numbers of users grew from 2600 in 2006-7 to 4200 in 2007-8 a growth rate of 61%.

Network Admission Control user growth		
Year	User numbers	Growth
2005/6	1300	
2006/7	2600	100%
2007/8	4200	60%

Exchange Hosted services –Virus and Spam filtering Service

In December 2006 IS Services introduced a new SPAM filtering service for the College email system. All mail coming into College is now filtered and quarantined by a Microsoft service called Exchange Hosted Services (EHS). On average 60% of all e-mail sent to TCD was spam for the period from January to December 2008. The following monthly summary figures show the breakdown on a month by month basis of the percentage of e-mail that was delivered, that was classified as spam and that was classified as a virus from January 2008 to mid December 2008. This clearly shows the value of the email filtering system.

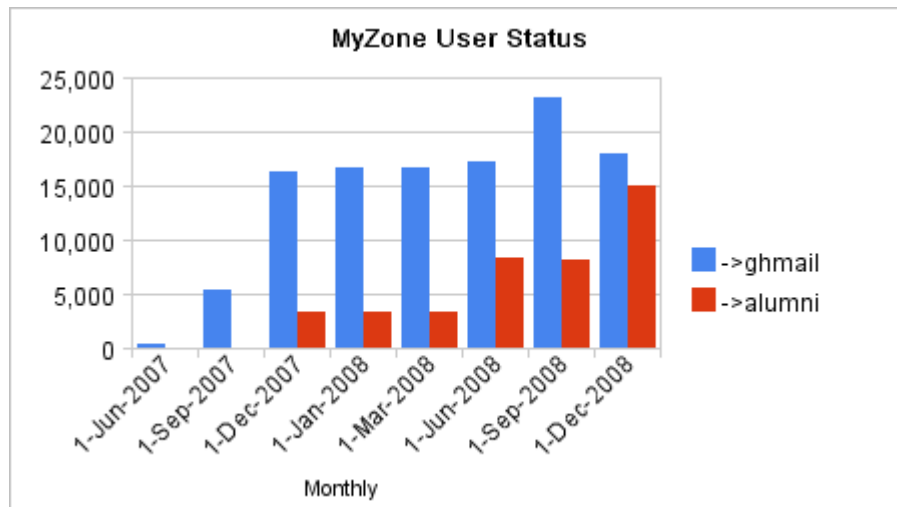
Year -2008	Millions	%	%
	Email Delivered	Spam	Virus
Jan	26.66	73	0.11
Feb	28.29	71	0.09
Mar	28.1	71.75	0.13
Apr	36.65	62.75	0.59
May	34.15	62.2	0.64
Jun	43.01	55.99	1.0
Jul	43.68	55.61	0.70
Aug	44.87	54.86	0.26
Sep	44.82	54.03	1.15
Oct	45.88	53.15	0.95
Nov	46	52.67	1.33
Dec	48.56	51.16	0.26

Averages: 39.22million 59.84% 0.6%

Student Email -Gmail –Student Mail and Collaboration Service

IS Services began offering a new email service for students in June 2007, this is provided in collaboration with Google. The service gives Students a centralised login point to access their College e-mail and other services such as calendar and chat. This service allows Trinity Students to now retain their College email address for life and offers many benefits including over 7GB storage space. The service has been very successful to-date. This project offers students email for life and is an important strategic development for College as it helps maintain links with former students and alumni.

The following diagram shows the number of TCD Students and past students that are registered for the service.

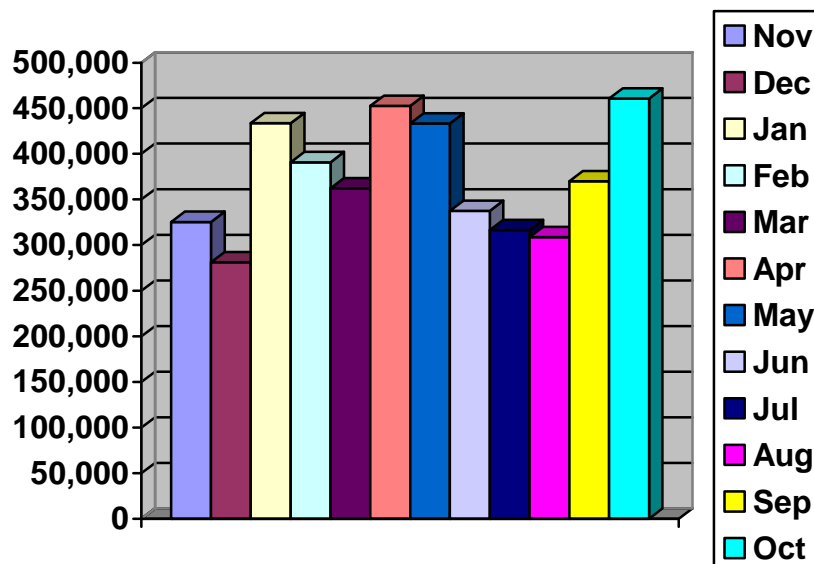


Key: ghmail = current students

alumni = past students

Number of accesses to the TCD Home page - total per month

Enhancing the College's presence on the web is a key strategic priority for disseminating information and heightening College's presences world-wide. Over the past year the web infrastructure has been enhanced to support the type of numbers that access College via the web. The table below shows the numbers that accessed the TCD global homepage .



New system for accessing e-journals and other licensed electronic resources from off-campus locations

The Library together with IS Services delivered a new system for accessing e-journals and other licensed electronic resources from off-campus locations. The new system went live in September 2008, and provides easier and expanded access to licensed electronic resources from off-campus locations. This supports the academic community in carrying out important research and is location independent. It has also eliminated the need for a separate username and password to access these resources. Usage has continued to grow from September.

Student Computing and support for Teaching and Learning

The team made significant progress in extending podcasting facilities into a total of 13 theatres on the main campus and to off-campus sites including the School of Nursing D'Olier Street and St. James's Medical Centre. A number of PowerPoint presenters were installed in the theatres in the School of Nursing D'Olier Street. Three seminar rooms were also upgraded in the St. James's Medical centre. Student computers in all non-teaching rooms on the main campus and also those at Trinity Hall, Dartry were replaced.

The email stations in Goldsmith Hall, East End and St. James's Medical Centre were all upgraded. New Email Stations were installed in the School of Nursing D'Olier Street. A number of end of life printers across college were replaced with environment friendly duplex printers. Microsoft Vista was installed in one of the student computing facilities for software testing by students and lecturers

iTunes U

In May 2008 Apple and College signed a deal for the use of iTunes U. It was probably the major IT Strategic initiative of the academic year and greatly enhanced the College's reputation on the world stage. The technology has the following benefits

- Promotes the College via video and audio to prospective students and the community at large.
- Helps the College to keep in touch with Alumni.
- Offers an opportunity for the Faculties to promote their work and staff.
- Can be used for Distance learning
- Acts as an aide memoir for students.
- Allows lectures to be pre recorded
- Enhances the experience of students with disabilities
- Can be used during the conference season
- Helps to centralise content distribution

Management Information Systems (MIS)

In addition to new development, MIS continued to support and maintain all existing systems, databases, utilities, interfaces, reports, lists, etc. As the inventory of new systems increases, so also does the maintenance and support burden. In particular, the move to a packaged approach has shifted the support burden from development teams to the database support team, which must maintain individual environments for each application; manage and support vendor software releases and upgrades; manage vendor performance at a technical level; provide secure remote access to vendors, and ensure that vendors adhere to our technical standards. During 2007/08 a number of projects were completed and more were initiated.

Major completed projects

Project	Description
Media Directory	A project for the Communications Office which allows members of the media to search for an expert based on various criteria. This is an element of College's strategy to facilitate communication between researchers and the mass media.
WISER	<p>A project for the Centre for Women in Science and Engineering Research. A Gender Indicators Database was designed and implemented</p> <p>-its primary objective is to produce an annual report for Board with a view to encouraging the establishment of a set of achievable targets for greater gender equality. Important secondary objectives were to design a system which could be used by to monitor gender equality within any College unit and which would be relatively easily extensible to monitor other equality grounds</p>
Student Records 1 & 2	<p>Two projects in the Office of the Vice Provost area:-</p> <p>1) Procedure for continuing student file (PCSF), this is an annual process with sets up the student records for the next academic year and archives/ removes and graduates other records. This system was totally re written to facilitate new requirements and remove dependency on Legacy architecture.</p> <p>2) Tutor Upload. This is a new application which allows the admissions office to bulk assign tutor codes to students.</p>
CORE HR Upgrade	The project involved the upgrade of CoreHR Human Resource Information System moving from client/server to web architecture. It has put in place the infrastructure necessary to facilitate implementation of additional modules, including e-Recruitment, in the future. The project included replacement of existing hardware and upgrade of the database management system to a more recent version, ensuring continued support by suppliers.

Nursing Allocation	The School of Nursing and Midwifery have 1200 student nurses attending both theory and clinical placements throughout the academic year. As a professional course, attendance must be planned, monitored, recorded and reported in accordance with the standards and requirements of An Bord Altranais (ABA). Due to the increased number of students a more accurate and less labour intensive system became essential. This project addressed the clinical placements monitoring requirement.
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Smaller projects completed

Project	Description
Expertise Ireland	The RSS interface was redeveloped to map to the j4B back end. This allowed TCD to become the only university to populate Expertise Ireland with link backs to full text articles (in the online TARA repository).
Research Audits:	A number of research audits were carried out, among others, the School of Business Financial Times audit and the Social Sciences review
Research Themes Sub-system:	<p>The Research Themes Sub-system is an extension to the RSS that contains essential data and models the relationship between College's research entities. Academics will be able to associate themselves and their publications to the research entities.</p> <p>This data is fed to the Research Showcase</p>
RSS Release 1.2	<p>Release 1.2 was an upgrade to the RSS that delivered on several change</p> <p>requests including Dissertations Supervised, Role Allocation, PubMed Import, Representation Details, Email Alerts for Shared Publications, TARA Error Handling, TARA Workflow Indicator, TARA publication reference fix, Expertise Ireland Feed validation, Publications table trigger fix.</p>
SIS Release 1.1	Release 1.1 of the Student Information System was an upgrade which delivered on several change requests including Student Record Page (reorganisation of Course info, Student Notes), New Email list using Nationality or Country/County code functionality, New functionality in order view a Colleague's timetable, New functionality to view any

	Supervisor's Chamber list, Access to most recent SIS Access Grid provided through Portal, New functionality of Course Timetabling.
DRM	The Data Reconciliation Module is a portal application which allows the Trinity Foundation and the Alumni Office to manage the flow of data to and from the Raiser's Edge fundraising system and the Alumni system. Occasional MIS intervention facilitates the smooth transition of records.
Fees PPSN	Web interface provided to Fees Office to facilitate refunds of tax on tuition fees, where applicable.
eReports Upgrade	A major upgrade of the reports delivered to College disciplines and research principal investigators was undertaken in the last quarter of 2008. This was undertaken with the assistance of Treasurers Office to ensure that additional reporting requirements e.g. FP7, Benefit in Kind and Matching Funding is presented and that the new format of these reports clearly identifies the total charged for specific cost codes. General Ledger and Research Transaction Details Reports recaptures invoice total and has been reformatted to ease reading and identify costs.

In progress

Project	Description
CoreTime Library to Live	<p>The Library has 170 staff. They have been piloting/using CoreTime, Core's Time and Attendance module, for the past two years.</p> <p>This project will provide an upgrade to a later version of the CoreTime module, and the Library data will be migrated to the production environment.</p>
CODA Upgrade	<p>This project involves an upgrade of the College Financials system from version 9.004 to V10.101 of Coda Financials and Procurement. Underpinning the Application upgrade are server, database and reporting tool upgrades with the provision of live, test and replication environments.</p>

Manuscripts	This project is to source implement and install an information management system to enable the Library's collection of unpublished research material in the Manuscripts Department to be made available online.
ABC - Accommodation Banqueting and Catering	The ABC project, set up to source a new system to support Accommodation management, the management of banquets and other catering events and the management of conferences held in TCD, completed its evaluation of products in November 2007. The Kx system from Kinetic Solutions has been chosen to fulfil this need, and contracts were signed in December 2007. Kx will be released in 4 phases, with banqueting and conference management going live in June 2008, followed by summer accommodation at the end of summer 2008, student accommodation due in February 2009 and student on line payments in September 2009. Kinetic provide a complete solution, including staff training and the creation of bespoke software modules and interfaces where necessary.
Nursing Time and Attendance	The School of Nursing and Midwifery have 1200 student nurses attending both theory and clinical placements throughout the academic year. As a professional course, attendance must be planned, monitored, recorded and reported in accordance with the standards and requirements of An Bord Altranais (ABA). Due to the increased number of students a more accurate and less labour intensive system became essential. This project addressed the requirement to monitor attendance at theory modules.
Research Proposal and Award Management System	A project for the Trinity Research & Innovation (TR&I) unit whose primary goal is to produce a more efficient and effective contract review and signature process for the College community. At present there is no information system to support TR&I in its work of administration and review of research contracts.
e-recruit	This project involves implementation of the E-Recruitment module of the CoreHR application. The E-Recruitment module facilitates online job applications and offers potential for reducing the high levels of manual activity involved in recruitment of staff. It provides a central repository of recruitment data. This project is being undertaken with the Staff Office.

IT Security

The 2007-08 academic year marked a notable rise in IT Security threats globally and consequently to the College Data network. An increased number of Security incidents were recorded in 2007-08 these included most notably targeted phishing attacks against third level institutions.

The scale of College operations, the rapid adoption of new technologies and the large number of new systems/applications implemented in College every year contribute to a challenging environment in which to implement security controls however Information Systems Services have made significant progress in the following key areas as discussed below.

Phishing - Third level institutions worldwide have been under attack this year from targeted phishing scams. Trinity College has been experiencing an ongoing low level of attacks punctuated by a number of notable larger scale more sustained attacks in March, June and October.

A number of users compromised their credentials in the first attack however following numerous informational emails and alerts on the Information Systems Services website the numbers of users responding to subsequent attacks was greatly reduced

Virus/Malware - The comprehensive antivirus software in place on all desktop and server systems has continued to successfully minimise disruption caused by viruses and worms.

As an additional service Information Systems Services use the data produced by the College anti-virus system to contact users experiencing repeated virus detections in order to provide assistance in identifying any underlying issues or vulnerabilities associated with their computers.

Software Updates - Monthly roll-outs of Microsoft Security patches continue to approximately 4500 workstations and servers in College. These rollouts are managed by the User Support Group and are successfully ensuring that College machines are compliant with the most up-to-date security levels. This provides further protection against virus infection and system compromise.

Account and password management - A number of initiatives have been progressed to help ensure the integrity of College user accounts and passwords. Information Systems Services have implemented a 180 day mandatory password change policy to ensure that users update their passwords in a timely manner. Additionally Information Systems Services has provided a remote password change/reset service Password Manager.

Intrusion Detection - The College Intrusion detection system which proactively detects threats to the College network was upgraded and fine-tuned to cover the College data network more comprehensively. This system has proven particularly successful in alerting Information Systems Services to security incidents in a timely manner.

User Awareness - Information Systems Services has continued to provide high quality information and advice to users on measures to secure their IT equipment via user notes and an informational website.

Service Plan 2009

IS Services are committed to service improvements in 2009/10. A key requirement is to work with the e-Strategy team and the e-Strategy Program Director to deliver a comprehensive Information Strategy for the College. IS Services management will continue to work on developing a supporting IT Strategy that is closely linked with important IT capabilities, such as portfolio management and governance. IS management will also need to develop a flexible technology architecture that allows the College the ability to rapidly support new business structures. The work program for 2009 and subsequent years has been published and is attached as **Appendix B**. The e-Strategy programme team will assist in prioritising the work program for 2009. (This is a sample template that has now as yet been formalised). As ever, the pace of change in both the technological arena and in the structures of the College will need to be tackled vigorously in the coming years. Solutions must be found to the management of information systems in College and the appropriate delivery of relevant information to all users. This information is required so processes in College can be managed and planned in the best manner possible. Technologically there are many challenges ahead. We are in a state of permanent change, driven by the demands of staff and students now more than ever before. Mobility, access to information 24 hours a day and the social needs of users are likely to drive technological change into the future. New devices and services are being developed on a daily basis and techniques will have to be implemented to provide these to the students who have an expectation of College being at the forefront of technological change.

The key deliverables will be the completion of infrastructure projects to support e-Strategy, enhancements to the current Finance and HR Systems; the acquisition of a new Access Control system to support Student Registration and the Director of Buildings Office, and significant changes to the existing Student Administration system to support semesterisation.

Serious consideration also needs to be given to the establishment of a college-wide institutional repository and a process and system to ensure the preservation of web content.

Funding

Being realistic about IT funding when costs are increasing (and budgets are not) means pursuing ways to reduce costs and reallocate savings. Eliminating, reducing or consolidating services may also help. Creating collaborations among colleges and universities for shared services such as disaster recovery is a potentially helpful strategy. The following practices may help facilitate successful IT funding efforts

- Align funding with institutional priorities
- Create fiscal flexibility to support innovation/research/teaching
- Construct and facilitate a structured and transparent IT budget process

IS Services management will be focusing on cost-cutting in many areas over 2009. Some of these cuts will be brought about by the use of new technologies.

Governance, Organisation and Leadership

The environment in which we work is very demanding. Creating an effective governance and framework for decision making on ICT systems is something that is currently missing. It will require somewhat different frameworks and tools to ensure delivery of efficient and effective IT support versus those used in many corporate environments. IT support at the university is mostly centralised but there are significant pockets of IT support strewn across the College. Many large scale projects go ahead without the involvement of the IS Services department and there is duplication in services offered to the College community. There are also significant staff costs involved in IT across the university and there are a number of computer facilities that need to be consolidated to ensure value for money and cost savings. The governance problem is proportional to the degree of decentralisation of IT at the College, and it severely limits effective and efficient delivery of IT services. This could be tackled by the development of an Information Strategy for College.

Sourcing

IS Services will need to make active sourcing decisions, neither wholly outsourcing nor wholly in-sourcing, but choosing the right mix according to business requirements and market characteristics. Services will need to be delivered in a coherent pattern that has an excellent lifetime business value

Infrastructure – (Networks and Systems)

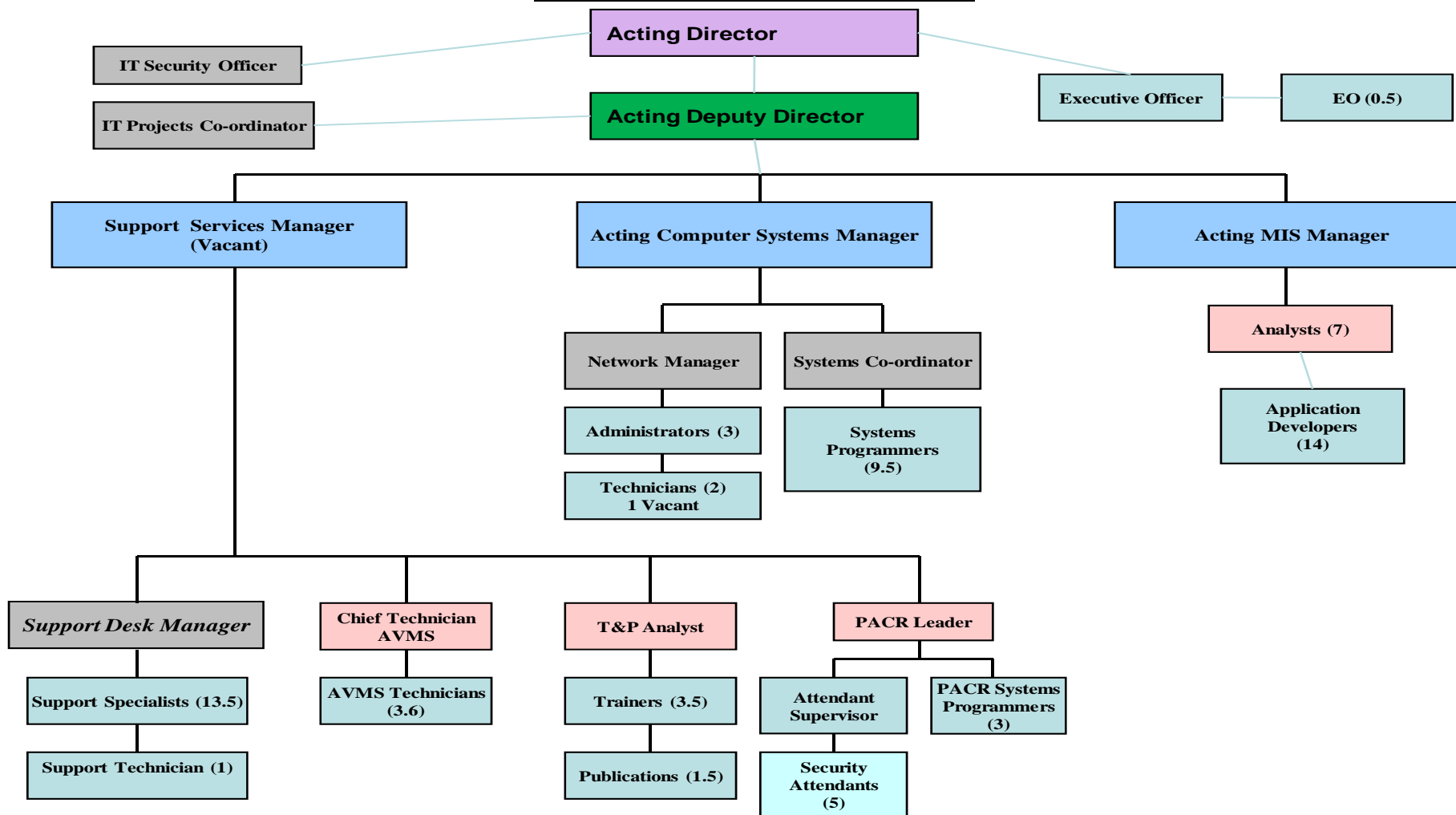
Managing IT infrastructure in today's environment requires a careful balancing of cost, manageability, flexibility, stability, security and performance. With over €10,000,000 invested over the past ten years it is one of the largest and most complex infrastructures in the country. The continuing development of network and systems must continue in 2009 to provide the support infrastructure for the e-Strategy program. Important projects such as Identity Management and the development of collaborative working tools such as Sharepoint are key technology projects to be initiated in 2009.

Disaster recovery/Business Continuity

A new data centre needs to be progressed as a matter of urgency in 2009. The data centre at Pearse St and the backup facility in the O'Reilly Institute are no longer fit for purpose and will not support the College's IT developments in the coming years. The cornerstones to any complete IT disaster recovery and business continuity plan are technology, people, and communications. A comprehensive plan must define the time-critical activities necessary during an emergency response. The lack of such a plan has been highlighted many times by IS Services, Internal and External Audit and external risk assessors.

Appendix A – Information Systems Services – Organogram

IS Services Division Structure: Sept 2008



Appendix B – Sample of Project Prioritisation Template used by e-Strategy Programme Team (N.B for illustration purposes only)

	Project Title	Project Description	Project Type	Risk of not doing	Increase efficiencies	Supports College Strategic Goals	Legal/Funding /Statutory/ Req.	Total	Status	Supports College Strategic Theme	Project Priority	Dependencies	Projected End Date	Staff
1	Admin 5 Upgrade	Academic year restructuring	MIS -Upgrade of existing Student System to support new academic year structure	9	8	9	7	33	IP	Core	1	OVP/Schools	Q3-2009	P Duggan E. Rooney D Lyons S. Dixit
2	Access Control	Replacement of existing access control system to support student registration and access to College buildings	Infrastructure/MIS – Replacement of existing system and upgrade of College network to support VLANS. May need to be done on a phased approach	9	7	8	9	33	IP	Core/Enabling	2	DOB/Buildings Office/Staff Office/Acc Office/Library	Q3-2010	MMG
3	Diploma Supplement	Delivery of European Diploma Supplement	MIS	9	8	8	8	33	IP	Core	3	OVP/Schools	Q4-2009	M Hughes Enda Rooney (part) /T McGlynn (part)
4	New Data Centre	Build a new data centre to support College's IT needs Supports e-Strategy and	Infrastructure/Communications/MIS. Major building renovation work. Major data and telecoms and power requirements. Complex project as some downtime to some/all of	9	5	9	9	32	IP	Enabling and Core	4	HPC/ISS/Comp Science/DOB/ Buildings Office/ESB/	Q4 -2010	CSG/US/MIS Teams

	Project Title	Project Description	Project Type	Risk of not doing	Increase efficiencies	Supports College Strategic Goals	Legal/Funding /Statutory/ Req.	Total	Status	Supports College Strategic Theme	Project Priority	Dependencies	Projected End Date	Staff
		risk management . Important for Disaster Recovery and Business Continuity	College IT services may be required.											
5	CODA Development	Treasurer's Office System. Major upgrade of existing system to include new modules that will greatly improve efficiencies and workflows across College	MIS – Integration of new modules and interfacing with other systems	8	9	8	7	32	IP	Enabling	5	Treasurers/Multiple stakeholders	Business Area/ISS needs to agree time	Adele Notley/DBA team
6	Staff email System	New exchange system to support calendaring/voice integration/s storage for email and mobility	Infrastructure/Communications	8	8	8	5	29	50% Pilot	Enabling	6	Multiple stakeholders	Q2 -2009	CSG/USG Teams
7	Library	New Library System	MIS/Infrastructure. Replacement of old Library System which is 12 years old.	8	8	7	5	28	35%	Enabling	7	Library/ISS/	Q4-2009	Sheila Dunphy/J. McGregor

	Project Title	Project Description	Project Type	Risk of not doing	Increase efficiencies	Supports College Strategic Goals	Legal/Funding /Statutory/ Req.	Total	Status	Supports College Strategic Theme	Project Priority	Dependencies	Projected End Date	Staff
8	E-Recruitment	Staff Office System enhancement	MIS – Exploitation of existing system to add modules and progress move to self-service HR	8	8	7	5	28	IP	Enabling	8	Staff Office/multiple stakeholders	Q3-2009	Cherry Prendergast DBA/ Team
9	CORE Time	T&A System piloted in Library to be extended to other areas of College	MIS- Support for move towards family friendly working and will form the basis of any move towards tele-working	5	8	6	5	24	IP	Enabling	9	Staff Office/ISS/Multiple stakeholders including staff representatives.	Library pilot Q2-2009. Further rollout subject to agreement on governance.	Cherry Prendergast DBA/ Staff Office
10	Research Proposal and Award System	Information System to support TR&I in its work of admin and review of research contracts.	MIS – Supports increased efficiencies in the administration of research areas.	7	7	6	5	24	IP	Core	10	TRI/Treasurers?	Tender to be started but aiming Q3 or Q4-2009	D Lyons/K Kiely/A Watson
11	ABC	Unified Accommodation, Banqueting and Catering system	MIS – Integration of the three main management areas in Director of Acc areas offering increased efficiencies	5	6	5	5	21	50%	Enabling	11	Acc Office/Treasurers Office	Q4 -2009	S Elster/ DBA
12	High Definition Video Conferencing suite	Provision of High Definition Video Conferencing to allow collaborative	Infrastructure	2	8	7	3	20	IP	Enabling	12	Dean of Science and Eng.	Equipment sourced Q2-2009	Colin McCabe Cieran Perry

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		work between academics and researchers worldwide												
13	Nursing Time & Attendance	Records attendance of Nurses at lectures	MIS- Interfacing with SAS and Nursing placement system	5	5	5	9	24	50%	Enabling	13		Most likely Q3-09	Andrew Watson
14	Full Economic Cost	Pilot scheme for recording academic work patterns	MIS	6	7	6	6	25	IP	Core/Enabling	14	Academic Community/External Stakeholders	Pilot not involving ISS. No IPC approval	Donal Lyons/McGrath (committees)
15	Identity Management	Secure access to College resources based on persons credentials	Infrastructure/MIS Access to various IT systems based on users identity. Critical to the success of projects in e-Strategy	8	8	7	7	30		Enabling	15		NS	MIS/CSG
16	MS SharePoint	Collaborative tool for information sharing across and outside College	Infrastructure – Will allow sharing of documents for groups/committees/schools/dept. Will greatly improve efficiencies and significantly reduce paper movements in College. Will integrate fully with new staff email system	8	9	8	5	30	Pilot	Enabling	16	Rollout will be College-wide	Q4-2009	CSG/MIS/US/Training/Ext supplier
17	Web CT	E-Learning platform for College interfacing and support	Infrastructure/MIS. Now a key learning tool for students with over 9,000 users. Needs full integration and upgrade	7	8	8	4	27	NS	Core	17	CLT/CAPSL/OVP	NS	MIS/T&P/CSG

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18	Institutional Repository	Large storage facility with indexing to allow for storage of all College electronic data	Infrastructure- College needs a central storage facility with off-site backup for preservation and indexing and retrieval of all College electronic resources.	7	7	7	6	27	NS	Enabling	18	Library/Secretary's Office	NS	MIS/CSG
19	Appointments and event management system for Provost Office	System that books and records all events for College Officers. CRM component	Infrastructure – there is a huge interest in this system from other areas of College. Workshop has been arranged for interested parties.	5	7	6	7	25	IP	Enabling	19	Multiple depts.	NS	CSG/MIS
20	Upgrade of Raisers Edge Alumni database including hardware	Graduate tracking and CRM package for Foundation	MIS – this system needs to be upgraded as a matter of urgency to allow the Foundation to meet its strategic objectives. The existing hardware and software are no longer supported	8	6	6	5	25		Enabling	20	OVP5	NS	Adele Notley/DBA
21	CRANN clean room booking system	System to allow booking and access to labs and rooms in CRANN	Infrastructure/MIS	5	6	6	4	21		Enabling	21		This system is on a local server. The issue is can ISS host it?	CSG/MIS
22	Upgrade of College network to 10GB/Sec to allow high speed access	As described to support GRID/HPC and the research community	Infrastructure –TCD now lags behind UCD in terms of Internet connectivity. Internet and current infrastructure will not meet the needs of TCD	10	7	10	9	36	NS	Enabling	22	All areas	NS	Networks Team (4)

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	for researchers		research community											
23	Unified Communications	Replacement of existing telephony system and move of technology to the data network	Infrastructure –pilot in place in ISS/DOB and School of Nursing D'Olier St. May be extended to enterprise centre. Decision needed for Biosciences Building	9	9	7	5	30	Pilot	Enabling	23	DOB	Pilot	CSG/Networks
24	Web Content management System	System that will allow schools/depts. to easily publish to the College web (internal sites)	MIS – Integration and interfacing with key systems. Greatly increase efficiencies across College and allow dynamic content to be published	9	8	8	4	29	NS	Enabling	24	CLT/Schools/ Web Committee	NS	T&P/MIS/CSG
25	Appointment System for Student Services	Unified appointment systems for student services	Infrastructure- may be possible as part of Provost's scheduling system	6	8	7	5	26	NS	Enabling	25	Student Services group	NS	CSG
26	Email for life extension for TCD Institution	Extension of the email for life system to include all graduates prior to 2007	Infrastructure – The success of the introduction of Gmail to students has meant that graduates now want to be part of the new system and have a TCD email for life account	5	7	9	5	26	NS	Enabling	26	OVP/Foundation	NS	CSG/MIS
27	Federated Access to allow seamless connectivity across third	Collaborative project to allow students and staff access to resources	Infrastructure/MIS/- Support for the campus Ireland concept. Will be asked to nominate a staff member to work on pilot project	6	6	8	5	25		Enabling	27	CS/GRID Ireland/CCDI R Group/HEAN ET/Other institutions	NS	CSG/MIS/

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	level in Ireland	from any third level institution in Ireland. Supports research collaboration												
28	Commercial development of RSS/TARA	TCD Research Support System could be extended to other institutions	MIS – Chance to commercialise the system	5	5	9	5	24	NS	Enabling	28	Library/Research Office	NS	D Lyons//A Watson/DBA.
29	SMS System for Emergency plan	System to allow contact with students in event of emergency. Needs to be considered as an overall approach to the use of technology in emergencies	Infrastructure – Integration with exiting system for example email systems or Student Admin System.	6	6	6	5	23	NS	Enabling	29	SMT	NS	CSG